

EzLogger3000C

User Manual

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NOTICE

Due to product version upgrades or other reasons, the contents of this document may be updated from time to time. Unless otherwise agreed, the contents of this document cannot replace the safety precautions on the product labels. All descriptions in this document are for guidance only.

Preface

Overview

This document mainly introduces the product information, installation and wiring, configuration and commissioning, troubleshooting, and maintenance of the Intelligent Data Logger. Before installing and using the product, carefully read this manual to understand product safety information and become familiar with the product functions and features. The document may be updated from time to time; please obtain the latest version of the materials and more product information from the official website.

Applicable Products

This document applies to the Intelligent Data Logger model EzLogger3000C; EzLogger3000C is hereinafter referred to as EzLogger.

Applicable Personnel

Only applicable to professionals who are familiar with local regulations and standards and electrical systems, have received professional training, and have a thorough knowledge of this product.

Symbol Definitions

 DANGER
Indicates a hazardous situation which, if not avoided, will result in death or serious personal injury.
 WARNING
Indicates a moderate potential hazard that, if not avoided, could result in death or serious injury.
 CAUTION
Indicates a low potential hazard that, if not avoided, could result in moderate or minor injury to personnel.

NOTICE

Emphasizes and supplements the content; may also provide tips or tricks for optimized product use, helping you solve a problem or save time.

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1 Safety Precautions



WARNING

The equipment has been designed and tested in strict accordance with safety regulations. However, as electrical equipment, relevant safety instructions must be followed before any operation on the equipment. Improper operation may cause serious injury or property damage.

1.1 General Safety

NOTICE

- Due to product version upgrades or other reasons, the contents of this document may be updated from time to time. Unless otherwise agreed, the contents of this document cannot replace the safety precautions on the product labels. All descriptions in this document are for guidance only.
- Before installing the equipment, carefully read this document to understand the product and precautions.
- All operations on the equipment must be performed by professional and qualified electrical technicians, who must be familiar with the relevant standards and safety regulations at the project location.
- When operating the equipment, use insulated tools and wear personal protective equipment to ensure personal safety. When contacting electronic components, wear antistatic gloves, antistatic wrist straps, antistatic clothing, etc., to provide Protection for the equipment against electrostatic damage.
- Unauthorized disassembly or modification may cause equipment damage, and such damage is not covered by the warranty.
- Equipment damage or personal injury caused by failure to install, use, or configure the equipment in accordance with this document or the corresponding user manual is not within the scope of the equipment manufacturer's responsibility. For more product warranty information, please obtain it from the official website: <https://en.goodwe.com/warranty>.

1.2 Grounding Safety

DANGER

When installing the equipment, the grounding cable must be installed first; when removing the equipment, the grounding cable must be removed last.

WARNING

- Ground the equipment at the nearest grounding point.
- Before operating the equipment, ensure that the equipment is reliably grounded.

1.3 Personal Safety

DANGER

- When operating the equipment, use insulated tools and wear personal protective equipment to ensure personal safety.
- When the equipment is short-circuited, do not approach or touch the equipment; immediately turn off the power supply.
- Before performing electrical connections on the equipment, disconnect all upstream switches to ensure the equipment is de-energized.

1.4 Equipment Safety

DANGER

Before installing the equipment, ensure that the installation location is secure and stable.

WARNING

- When installing, maintaining, or performing other operations on the equipment, use suitable tools and operate them correctly.
- When operating the equipment, comply with local applicable standards and safety regulations.
- Unauthorized disassembly or modification may cause equipment damage, and such damage is not covered by the warranty.

1.5 Description of Safety Symbols and Certification Marks

DANGER

- After the equipment is installed, the labels and warning signs on the enclosure must be clearly visible. Obstructing, altering, or damaging them is prohibited.
- The following description of enclosure warning labels is for reference only. The actual labels used on the equipment shall prevail.

No.	Symbol	Description
1		There are potential hazards when the equipment is running. Take protective measures when operating the equipment.
2		High voltage hazard. High voltage is present when the equipment is running. When operating the equipment, ensure that the equipment is powered off.
3		Before operating the equipment, please read the product manual carefully.
4		The equipment must not be disposed of as household waste. Dispose of the equipment in accordance with local laws and regulations, or return it to the equipment manufacturer.

No.	Symbol	Description
5		CE Certification mark.
6		RCM Certification mark.
7	 R XXX-XXXXXX	TELEC mark
8		ANATEL mark

1.6 Personnel Requirements

NOTICE

To ensure the safety, compliance, and efficiency of the entire process of equipment transportation, installation, wiring, operation, and maintenance, operations must be performed by professional or qualified personnel.

1. Professional or qualified personnel include:

- Personnel who have mastered the equipment's working principles, system structure, and knowledge related to risks and hazards, and have received professional operation training or possess extensive practical experience.
- Personnel who have received relevant technical and safety training, possess a certain amount of operational experience, are able to recognize the dangers that specific operations may pose to themselves, and are able to take protective measures to minimize risks to themselves and others.
- Qualified electrical technicians who comply with the regulatory requirements of the country/region in which they are located.
- Possess an electrical engineering degree/higher diploma in the electrical discipline or equivalent/professional qualification in the electrical field, and have at least 2/3/4 years of experience in testing and supervisory work using electrical equipment safety standards.

2. Personnel involved in special tasks such as electrical work, work at heights, and special equipment operation must hold valid qualification certificates required by the location of the equipment.

3. Medium-voltage equipment operations must be performed by certified high-voltage electricians.

4. Equipment and component replacement may only be performed by authorized personnel.

1.7 European Declaration of Conformity

1.7.1 Devices Without Wireless Communication Function

Equipment without wireless communication functions that can be sold in the European market meets the following directive requirements:

- Electromagnetic compatibility Directive 2014/30/EU (EMC)
- Electrical Apparatus Low Voltage Directive 2014/35/EU (LVD)
- Restrictions of Hazardous Substances Directive 2011/65/EU and (EU) 2015/863

(RoHS)

- Waste Electrical and Electronic Equipment 2012/19/EU
- Registration, Evaluation, Authorization and Restriction of Chemicals (EC) No 1907/2006 (REACH)

2 Product Introduction

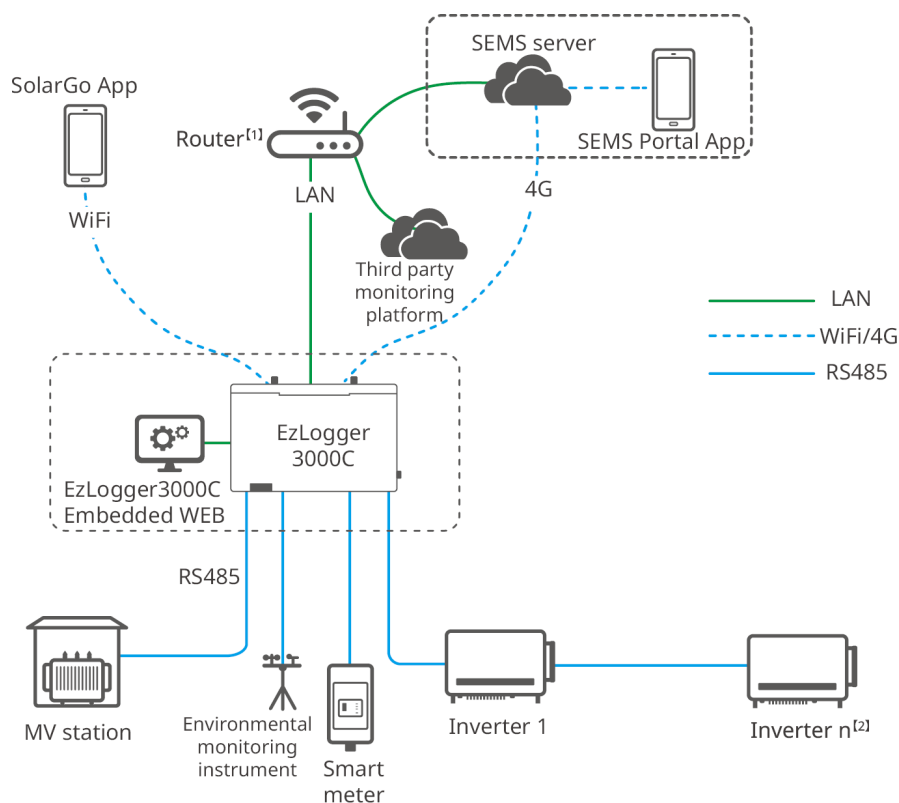
2.1 Function Description

The data logger is a dedicated device for the monitoring and management platform of photovoltaic power generation systems. It can be used to collect data from equipment in the photovoltaic power generation system, such as inverters, environmental monitors, meters, etc., store logs, and send the data to the monitoring and management platform, enabling centralized monitoring, operation, and maintenance of the photovoltaic system.

2.2 Networking Applications

The data logger is applicable to PV systems:

- RS485 communication can connect to: meters, inverters, environmental monitoring instruments, box-type transformers, and other RS485 communication devices.
- Ethernet communication can connect to: routers, PCs, power plant management and monitoring systems, etc.
- 4G communication can connect to: power plant management and monitoring systems, etc.
- WiFi communication can connect to the App for device commissioning.

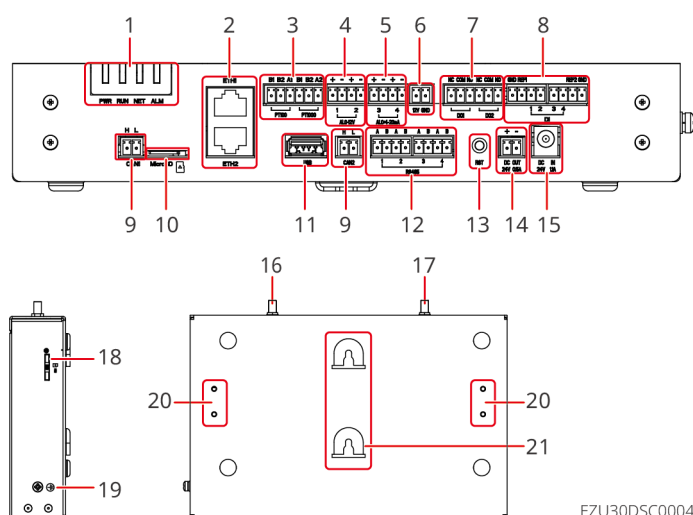


[1] If the router has firewall Protection, please contact the after-sales service center.

[2] In the same RS485 channel, a maximum of 20 inverters can be connected.

[3] The maximum number of devices that can be connected to the system is 100, including inverters, box-type transformers, environmental monitoring instruments, temperature sensors, etc.

2.3 Appearance and Dimensions Introduction



EZU30DSC0004

No.	Components	Description
1	Indicator Light	Indicates the operating status of the equipment.
2	Ethernet Communication Ports (ETH1/2)	Ethernet Connection Port • ETH1 can be used for external network communication. • ETH2 can be used for external network communication or for connecting to the device's embedded Web.
3	Temperature Sensor Ports (PT100/PT1000)	Connect PT100/PT1000 temperature sensors.
4	AI Communication Ports (AI_0-12V)	0-12V AI Signal Input Port.
5	AI Communication Ports (AI_0/4-20mA)	0/4-20mA AI Signal Input Port.
6	12V Power Output Port (12V GND)	12V DC Power Output Connection Port.
7	DO Communication Port (DO1/2)	DO Signal Output Port.
8	DI Communication Port (DI)	DI signal input port, supporting connection to active contact or passive contact signals.
9	CAN Communication Port (CAN 1/2)	Reserved port, CAN communication port.
10	MicroSD Card Port (MicroSD)	MicroSD card port, stores device operation, control, and maintenance log information.
11	USB Connection Port (USB)	Connect a USB flash drive; can be used to update the system software version.

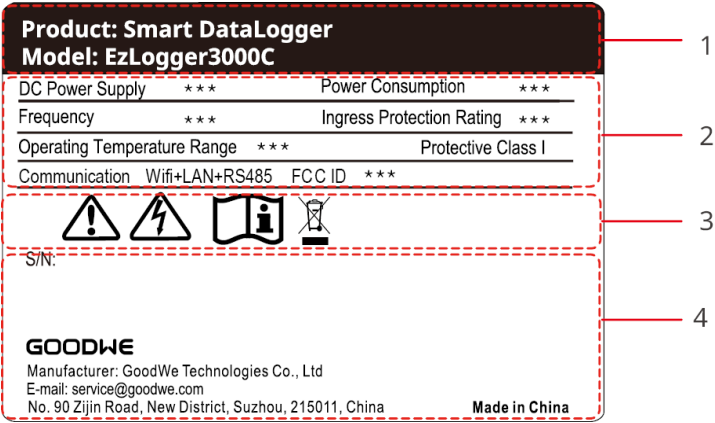
No.	Components	Description
12	RS485 Communication Port (RS485 1-4)	RS485 communication connection port; can be used to connect RS485 communication devices such as inverters, electricity meters, environmental monitoring instruments, etc.
13	Reset Button (RST)	Short press for 1-3 seconds: device restarts. Long press for 6-20 seconds: device restarts and restores factory default network settings.
14	DC Output Port (DC OUT 24V 0.5A)	24V DC power output connection port.
15	Power Input Port (DC IN 24V 1.1A)	24V DC power input connection port.
16	4G Antenna (4G ANT)	4G antenna port, only applicable in certain regions; for details, please confirm with your local dealer.
17	WiFi Antenna (WiFi ANT)	• Used for WiFi hotspot signals. • If the device is installed inside a metal box or under a metal roof or concrete roof, it is recommended to use an external suction-cup antenna or RF extension cable to enhance the signal. Recommended specification: WiFi 2.4G.
18	SIM Card Installation Port (SIM)	SIM card slot.
19	Protection Grounding Point	Used for enclosure grounding.
20	DIN Rail Clip Mounting Hole	Used to secure the device to the DIN rail.
21	Hanging Mounting Hole	Used for mounting the device.

2.4 Indicator Light Description

Indicator Light	Status	Description
PWR		Green light steady on: device power supply normal
		Off: device power supply abnormal
RUN		Green light steady on/off: device operation abnormal
		
NET		Green light steady on: device connected to server normally
		Green light fast flashing: Device connected to router, Not Connected to server
		Green light slow flashing: Device Not Connected to Router
ALM		Red light steady on: all inverters in the system are in fault state
		Off: at least one inverter in the system is in normal state

2.5 Nameplate Description

The nameplate is for reference only; please refer to the actual product.



No.	Description	No.	Description
1	Product Type and Model	2	Product Technical Specifications
3	Product Safety Symbols	4	GoodWe Trademark, Contact Information, and Serial Number Information

3 Equipment Inspection and Storage

3.1 Inspection Before Acceptance

Before accepting the product, carefully check the following:

1. Check whether the outer packaging is damaged, such as deformation, punctures, cracks, or other signs that may cause damage to the equipment inside the package. If there is damage, do not open the package and contact your dealer.
2. Check whether the equipment model is correct. If it does not match, do not open the package and contact your dealer.
3. Check whether the type and quantity of the delivered items are correct and whether the appearance is damaged. If there is damage, contact your dealer.

3.2 Equipment Storage

If the equipment is not put into use immediately, store it according to the following requirements. After long-term storage, the equipment can only be put back into use after inspection and confirmation by professional personnel.

Time requirements:

- If the equipment has been stored for more than two years or remains out of operation for more than 6 months after installation, it is recommended that it be inspected and tested by professional personnel before being put into use.
- To ensure good electrical performance of the electronic components inside the equipment, it is recommended to energize it once every 6 months during storage. If it has not been energized for more than 6 months, it is recommended that it be inspected and tested by professional personnel before being put into use.

Packaging requirements:

Ensure that the outer packaging box has not been removed.

Environmental requirements:

- Ensure that the equipment is stored in a cool place and avoid direct sunlight.
- Ensure that the storage environment is clean, the temperature and humidity

ranges are appropriate, and there is no condensation. If condensation is present at the device ports, do not install the device.

- Ensure that the equipment is kept away from flammable, explosive, corrosive, and other items during storage.

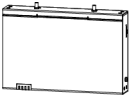
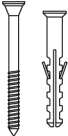
3.3 Deliverables

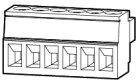
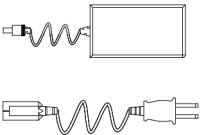
WARNING

- Check whether the type and quantity of the delivered items are correct and whether the appearance is damaged. If there is damage, contact your dealer.
- After the delivered items are removed from the packaging, do not place them on rough, uneven, or sharp surfaces to prevent paint peeling.

NOTICE

- Use the terminals and screws supplied with the package. Using terminals and screws of other models may cause serious consequences, and equipment damage caused thereby is not within the equipment manufacturer's scope of responsibility.
- The appearance of the power adapter shall be subject to the actual product.

Components	Description	Components	Description
	EzLogger x 1		DIN rail x 1
	Expansion screws x 2		2-pin communication terminal x 4
	DIN rail clip x 2		4-pin communication terminal x 6

Components	Description	Components	Description
	6-pin communication terminal x 2		Fastening screw x 4
	Antenna x N		Power adapter x 1
	Product documentation x 1	-	-

4 Installation

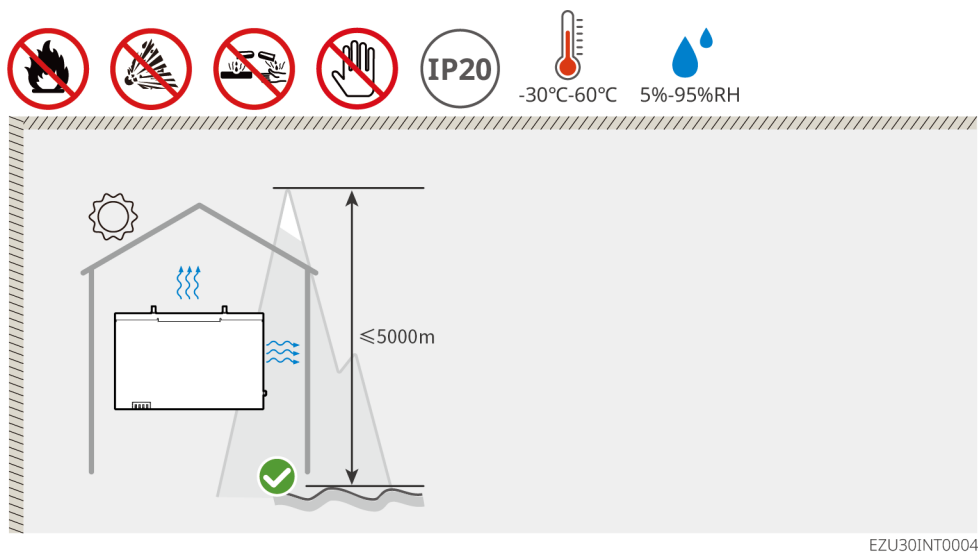
DANGER

When performing device installation and electrical connections, use the delivered items shipped with the device; otherwise, equipment damage will not be covered by the warranty.

4.1 Installation Requirements

4.1.1 Installation Environment Requirements

1. The equipment must not be installed in flammable, explosive, corrosive, or similar environments.
2. The temperature and humidity of the device installation environment must be within the appropriate range.
3. The installation location must be out of reach of children and avoid locations that are easy to touch.
4. The device must be installed away from direct sunlight, rain, snow accumulation, and other such environmental conditions. It is recommended to install it in a sheltered location; if necessary, a sunshade can be erected.
5. The installation space must meet the equipment's ventilation and heat dissipation requirements and operating space requirements.
6. The equipment installation height must facilitate operation and maintenance, ensuring that equipment indicator lights and all labels are easy to view, and wiring terminals are easy to operate.
7. The equipment installation altitude must be lower than the Max. Operating Altitude.
8. Keep away from strong magnetic field environments to avoid electromagnetic interference. If there are radio stations or wireless communication equipment below 30 MHz near the installation location, ensure that the distance between the device and the wireless electromagnetic interference equipment exceeds 30 m.



4.1.2 Installation Carrier Requirements

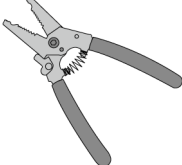
- The installation carrier must not be made of flammable materials and must have fire-resistant properties.
- Ensure that the installation carrier is sturdy and reliable and can bear the Weight of the device.

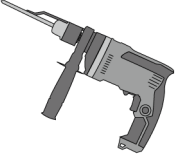
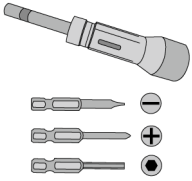
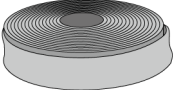
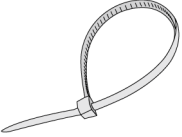
4.1.3 Tool Requirements

NOTICE

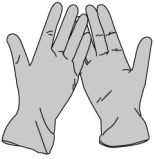
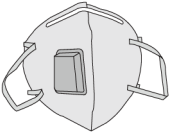
During installation, it is recommended to use the following installation tools. If necessary, other auxiliary tools may be used on site.

Installation tools

Tool type	Description	Tool type	Description
	Diagonal cutting pliers		Wire stripper

Tool type	Description	Tool type	Description
	Impact drill		Torque wrench
	Marker pen		Spirit level
	Heat-shrink tubing		Rubber mallet
	Cable tie		Vacuum cleaner

Personal Protective Equipment

Tool type	Description	Tool type	Description
	Safety gloves		Dust mask
	Safety goggles		Safety shoes

4.2 Installing the Data Logger

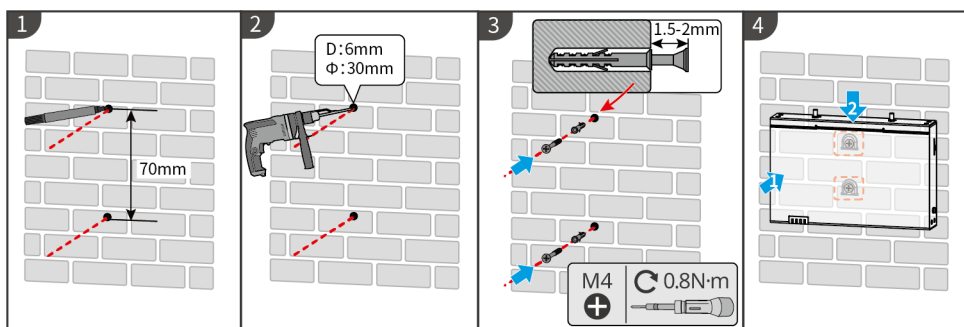
Method 1: Wall mounting

NOTICE

- When drilling, ensure the drilling positions avoid water pipes, cables, and other hidden installations in the wall to prevent danger.
- When drilling, wear safety goggles and a dust mask to prevent dust from being inhaled into the respiratory tract or entering the eyes.
- When wall-mounting the data logger, ensure that the wiring area faces downward to facilitate wiring or maintenance.

Operating steps:

1. Use a marker to mark the drilling positions, ensuring that the marked hole positions match the mounting holes on the back of the device.
2. Use an impact drill with a 6mm drill bit to drill holes, ensuring a hole depth of approximately 30mm.
3. Install expansion screws, leaving 1.5-2mm exposed from the wall for mounting the device.
4. Mount the device onto the expansion screws and pull it down to lock it in place, ensuring stable installation.



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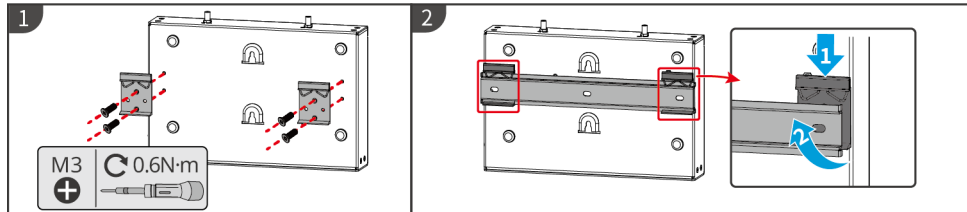
Method 2: DIN rail installation

NOTICE

- When using DIN rail installation, the rail mounting bracket must be installed on the device.
- Before installing the data logger, prepare M3 screws to securely fix the DIN rail to a solid and stable carrier, such as a wall or bracket.

Operating steps:

1. Fix the DIN rail mounting bracket to the device using M3 screws.
2. Install the device on the DIN rail.



EZU30INT0003

Method 3: Desktop Installation

The data logger supports desktop installation.

NOTICE

- Install the data logger on a horizontal desktop to prevent it from falling and being damaged.
- Place the data logger in a location that is not easily touched to prevent signal interruption caused by accidental contact.

5 Electrical Connections

DANGER

- All operations during electrical connection and the specifications of cables and components used must comply with local legal and regulatory requirements.
- Before performing electrical connections, ensure that the equipment is de-energized. Live-line operation is strictly prohibited; otherwise, hazards such as electric shock may occur.
- Cables of the same type should be tied together and routed separately from cables of different types. Do not intertwine or cross them.
- If the cable is subjected to excessive tension, it may cause poor connection. When wiring, reserve a certain length of cable before connecting it to the equipment wiring port.
- When crimping the wiring terminal, ensure that the conductor part of the cable is in full contact with the terminal. Do not crimp the cable insulation together with the terminal; otherwise, the equipment may fail to operate, or after operation, unreliable connection may cause overheating and damage to the equipment terminal block.

NOTICE

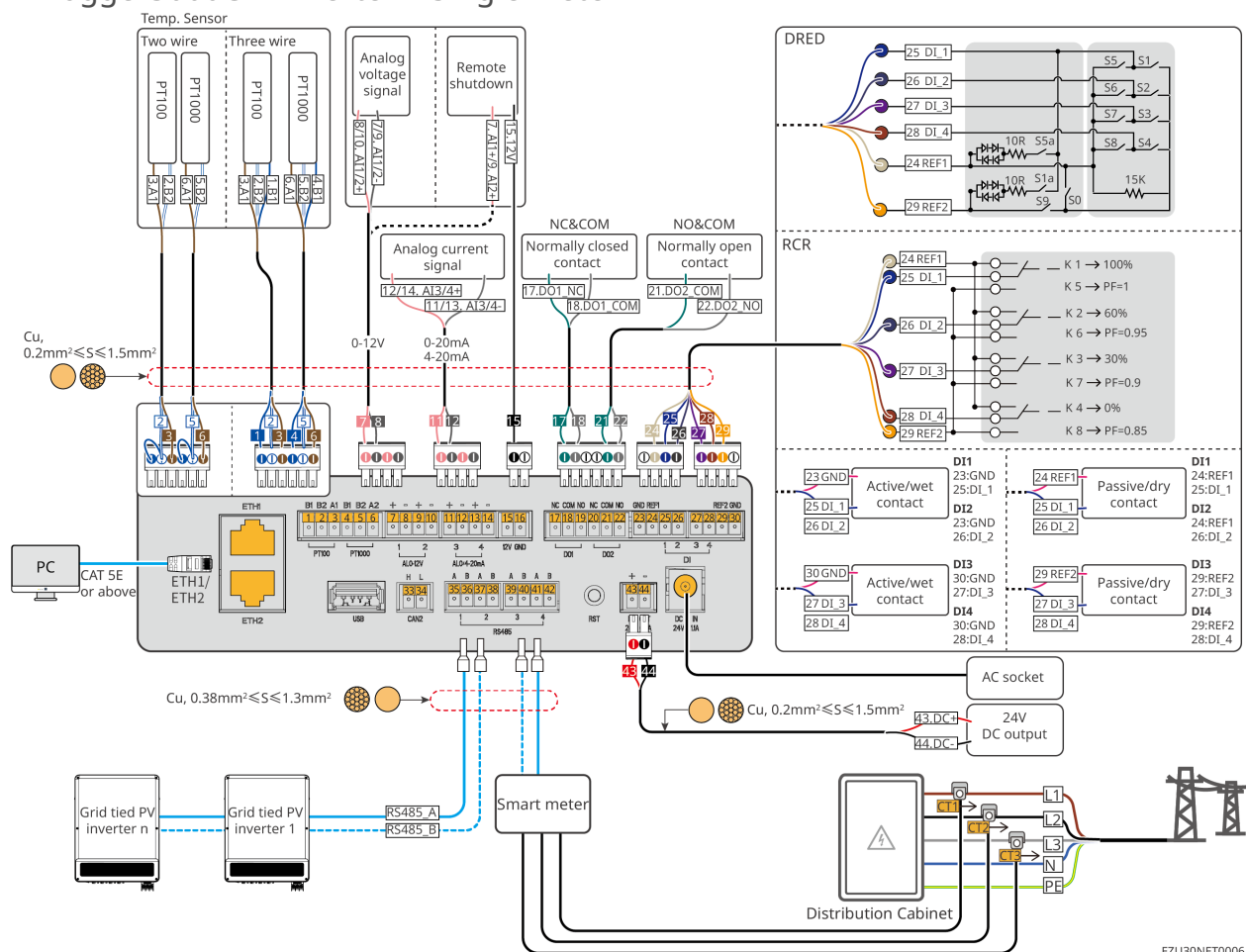
- When performing electrical connections, wear personal protective equipment such as safety shoes, protective gloves, and insulating gloves as required.
- Only professionals are permitted to perform operations related to electrical connections.
- Cable colors in the figures in this document are for reference only. Specific cable specifications must comply with local regulatory requirements.
- To avoid signal interference, route signal cables and power cables separately, with a minimum spacing of 500 mm between cables.

5.1 System Wiring Detailed Diagram

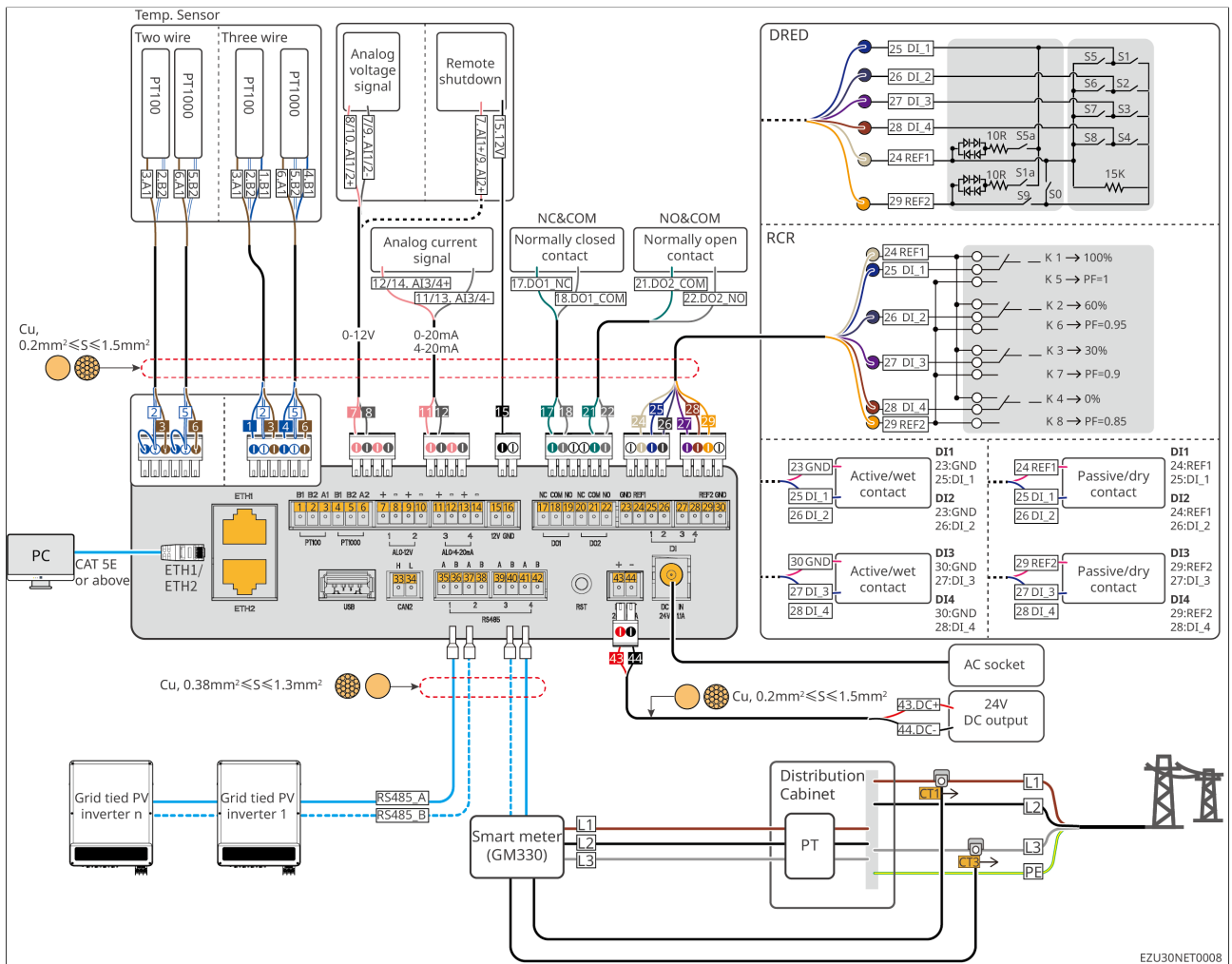
NOTICE

- The active power and reactive power adjustment values of the RCR device in the wiring diagram are default values. For specific values, please refer to the actual requirements of the power grid company.
- When the GM330 meter is used in high-voltage scenarios, the high voltage must be stepped down through a transformer to the low-voltage range that the meter can withstand before connecting to the meter. Please ensure that the CTs used on the high-voltage side grid power lines meet the corresponding high-voltage withstand requirements.

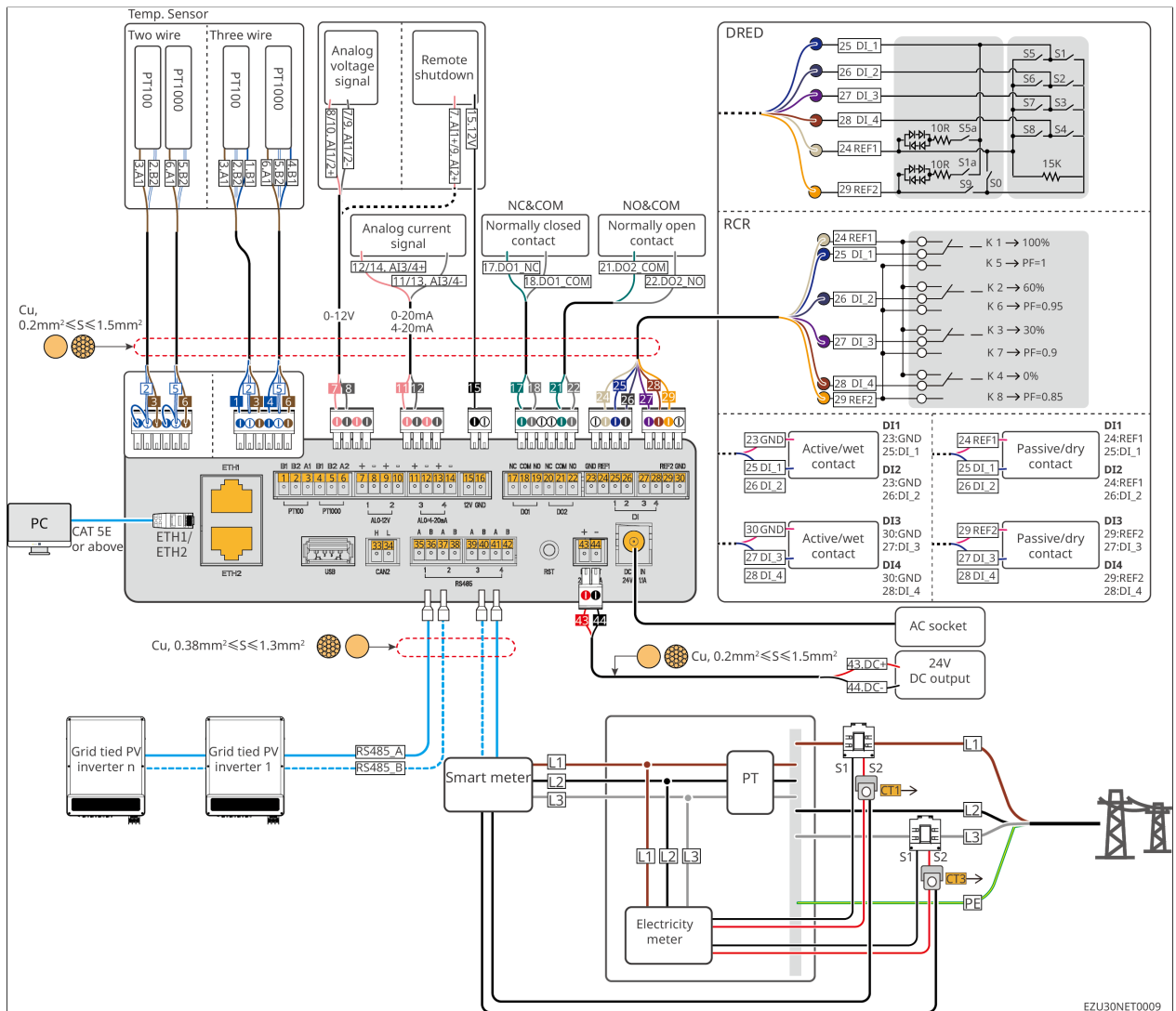
EzLogger3000C + Inverter + Single Meter



- EzLogger3000C + Inverter + Single Meter (GM330 meter, high-voltage Power Limit scenario)



- EzLogger3000C + Inverter + Single Meter (third-party Acrel meter, high-voltage Power Limit scenario)



- EzLogger3000C + Inverter + Multiple Meters

No.	Cable Type	Silkscreen	Cable Requirements
1	Protection Grounding Cable		• Outdoor Copper-core Cable • Conductor cross-sectional area: 2.5mm² - 4mm² (14AWG - 12AWG)
2	DC Output Cable (12V /24V)	DC OUT/ 12V GND	• Outdoor Copper-core Cable • Conductor cross-sectional area: 0.2mm² - 1.5mm² (24AWG - 16AWG)
3	DO Signal Cable	DO 1-2	
4	RS485 Signal Cable	RS485 1-4	• Outdoor shielded twisted pair cable meeting local standards • Conductor cross-sectional area: 0.2mm² - 1.5mm² (24AWG - 16AWG)
5	DI Signal Cable	DI 1-4	• Outdoor Copper-core Cable • Conductor cross-sectional area: 0.2mm² - 1.5mm² (24AWG - 16AWG)
6	AI Signal Cable	AI_0-12V AI_0/4-20mA	
7	PT Signal Cable	PT100 PT1000	
8	Network Cable	ETH 1-2	• CAT 5E or Higher Outdoor Shielded Network Cable • Shielded RJ45 Connector

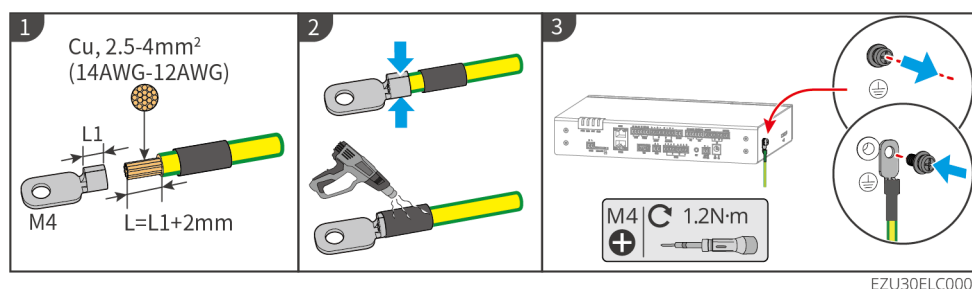
5.3 Connect Protection Ground Wire

! WARNING

- Before operating the equipment, ensure that the equipment is reliably grounded.
- To improve the corrosion resistance of the terminal, after the Protection ground wire is connected and installed, it is recommended to apply silicone or paint on the outside of the grounding terminal for protection.
- Please provide your own Protection ground wire, grounding OT terminal, and fastening screws. Recommended specifications:
 - Protection ground wire: Outdoor copper-core cable with conductor cross-sectional area of 2.5–4 mm² or 14 AWG–12 AWG
 - OT terminal: M4
 - Fastening screw: M4

Operating steps:

1. Strip the cable to an appropriate length.
2. Crimp the cable to the grounding OT terminal.
3. Use insulating heat-shrink tubing to cover the connection between the cable and the OT terminal.
4. Secure the Protection ground wire to the EzLogger grounding terminal using M4 screws.



5.4 Connect Communication Cables

NOTICE

The communication function is optional. Please connect wiring according to the actual application scenario.

Communication Port Definitions

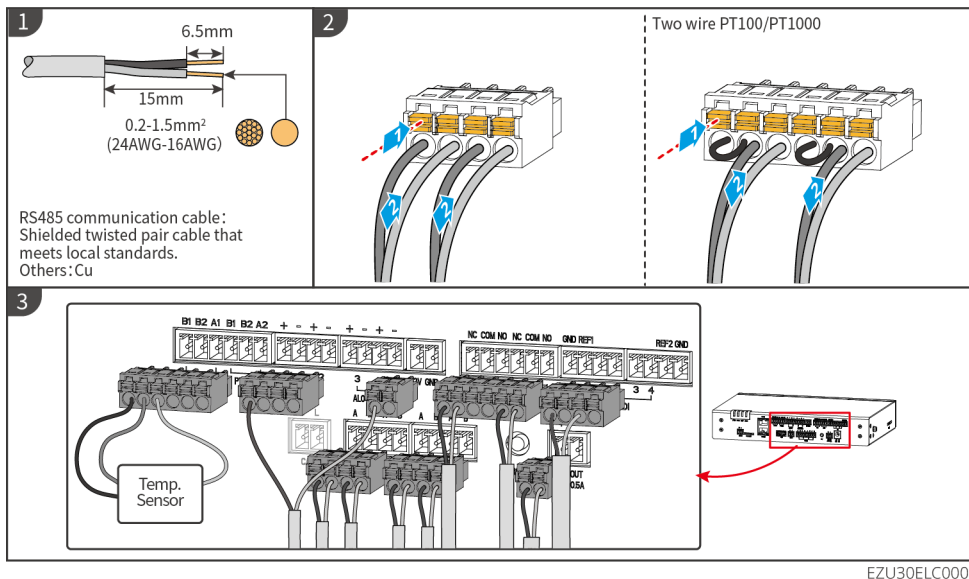
No.	Port Definitions	Description
1	PT100/PT1000 B1	- Temperature sensor connection port. - Supports connection of 2-wire or 3-wire PT100/PT1000 temperature sensors. - When connecting a 2-wire PT100/PT1000 temperature sensor, ports B1 and B2 must be short-circuited.
2	PT100/PT1000 B2	
3	PT100 A1 PT1000 A2	
5	AI_0-12V 1/2-	- Supports 0-12V analog voltage input signals. - To enable the one-click shutdown function, connect the Protection device to the data logger's AI1+ or AI2+ port and 12V power output port.
6	AI_0-12V 1/2+	
7	AI_0/4-20mA 3/4+	Reserved port for 0-20mA or 4-20mA analog current input signals.
8	AI_0/4-20mA 3/4-	
9	12V	Used to implement the one-click shutdown function.
10	GND	
11	DO_NC	- The DO port supports connection to dry contact signal output. - The DO port supports a maximum signal rating of 30V/1A; NC/COM is the normally closed terminal, and NO/COM is the normally open terminal. - The signal transmission distance is recommended not to exceed 10m.
12	DO_COM	
13	DO_NO	
14	GND	
15	REF1	

No.	Port Definitions	Description
16	DI_1/2/3/4	• Digital signal input port. • Supports a DRED (Demand Response Enabling Device) signal control port, meeting DRED Certification requirements in Australia and other regions. • Supports an RCR (Ripple Control Receiver) signal control port, meeting grid dispatch requirements in Germany and other regions. • Supports OVGR (Over Voltage Ground Relay) /RPR (Reverse Power Relay) signal control port, meeting the requirements of different application scenarios in Japan and other regions. • Supports connection of wet contact signals and dry contact signals; wet contacts support 0-12V voltage input, where 8-12V input is high level. • The DI signal cable transmission distance is recommended not to exceed 10m.
17	RS485_A1/2/3/4	

No.	Port Definitions	Description
18	RS485_B1/2/3/4	• RS485 communication connection port. • Supports a DRED (Demand Response Enabling Device) signal control port, meeting DRED Certification requirements in Australia and other regions. • Supports an RCR (Ripple Control Receiver) signal control port, meeting grid dispatch requirements in Germany and other regions. • Supports OVGR (Over Voltage Ground Relay) /RPR (Reverse Power Relay) signal control port, meeting the requirements of different application scenarios in Japan and other regions. • Supports connection of wet contact signals and dry contact signals; wet contacts support 0-12V voltage input, where 8-12V input is high level. • The DI signal cable transmission distance is recommended not to exceed 10m.

Communication cable connection steps:

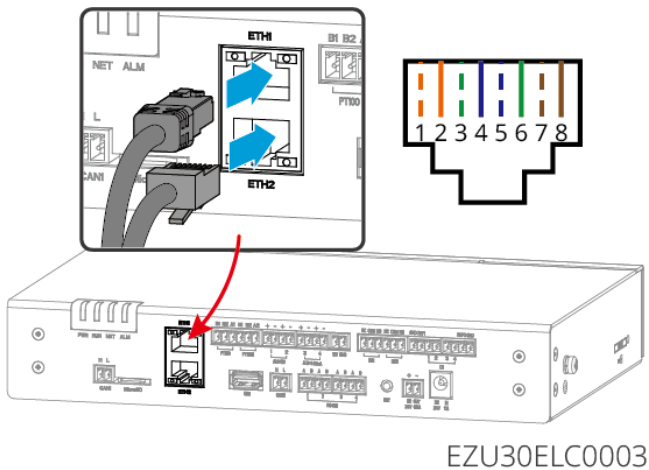
1. Prepare a communication cable of appropriate specifications, strip it to an appropriate length, and crimp a ferrule.
2. Connect the crimped cable to the communication terminal.
3. Insert the communication terminal into the corresponding communication port.



5.5 Connecting the Network Cable

NOTICE

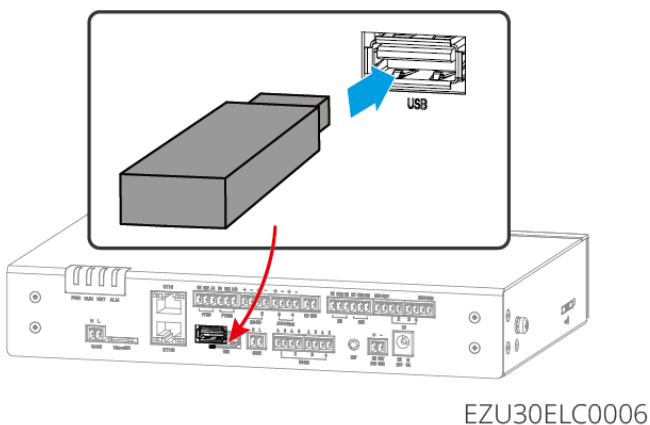
- ETH1 is used for external network communication. The port is in dynamic IP mode by factory default, and can be connected to routers, switches, and other devices.
- ETH2 is used for external network communication or to connect to the device's local embedded Web. The port is in dynamic IP mode by factory default, and a virtual fixed IP: 172.18.0.12 is reserved. It can be connected to routers, switches, and other devices, and can also be connected to a computer to log in to the embedded Web to configure related parameters.
- ETH1 and ETH2 ports cannot be configured with IP addresses in the same subnet, and the configured IP address cannot be in the same subnet as the virtual fixed IP.
- To modify the ETH port IP parameters, please refer to [Set Port Parameters](#) chapter for operation.
- When using a network cable to connect the data logger and a computer, if the computer only provides USB, Type-C, and other interfaces, please prepare an Ethernet port adapter yourself.



5.6 Connecting the USB Port

NOTICE

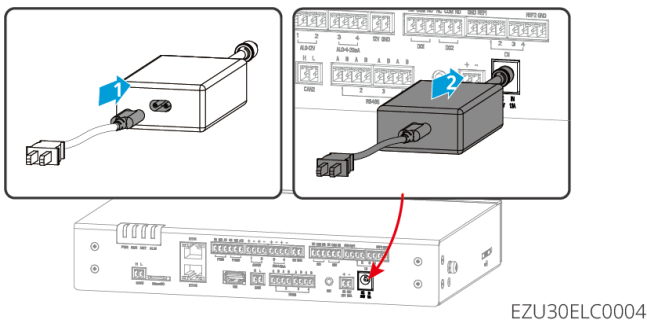
- You can connect a USB flash drive to the USB port to update the data acquisition software version. Please contact the after-sales service center to obtain the software upgrade package.
- Please prepare a FAT32 USB flash drive, The USB flash drive capacity must not exceed 32 GB.



5.7 Connect the Power Adapter

NOTICE

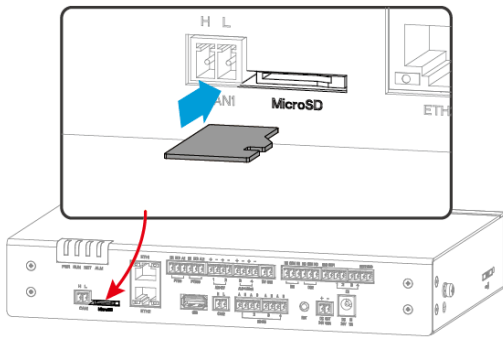
- Please connect the power adapter shipped with the box to the DC input port, to supply power to the device.
- The appearance of the power adapter is subject to the actual product.
- Power adapter specifications: input is AC 100V~240V, frequency is 50Hz/60Hz; output is DC 24V, 1.5A。



5.8 Install SIM Card

NOTICE

- Install a SIM card to enable 4G. The 4G function is available in some regions, for details, consult your local dealer。
- In China, SIM cards from China Mobile, China Unicom, and China Telecom are supported.
- The SIM card must be provided by the user, A standard SIM card is recommended (size: 25mm*15mm, capacity $\geq 64KB$). In the network, the data plan required for a single inverter should be greater than 200M/month, and the data plan required for n inverters should be greater than $200M+100M*n/month$ 。

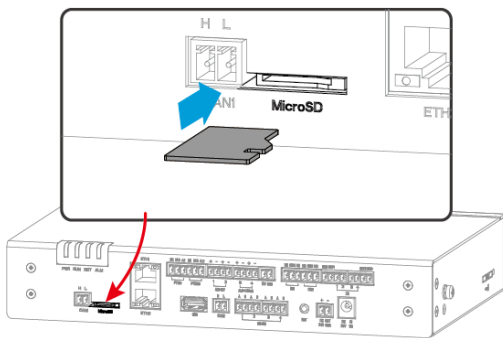


EZU30ELC0008

5.9 Install Microsd Card

NOTICE

To ensure the breakpoint resume function operates normally, install a MicroSD card to store breakpoint data.

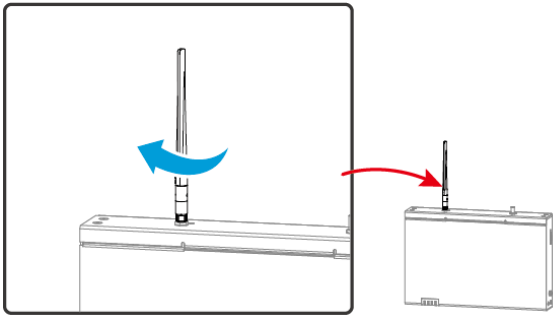


EZU30ELC0008

5.10 Install Antenna

NOTICE

Ensure that the antenna is correctly installed and tightened, otherwise, you may not be able to connect to the data logger's WiFi hotspot.



EZU30ELC0009

6 System Trial Run

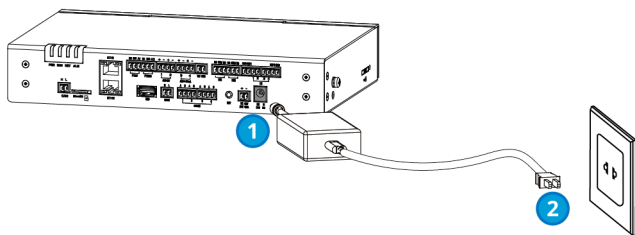
6.1 System Pre-Power-on Check

No.	Check Items
1	The equipment is installed securely; the installation position facilitates operation and maintenance; the installation space facilitates ventilation and heat dissipation; the installation environment is clean and tidy.
2	The Protection ground wire, DC input cable, DC output cable, communication cable, etc. are correctly and securely connected.
3	Cables are bound in accordance with routing requirements, reasonably distributed, and free from damage.
4	The equipment input signal and input power parameters are within the equipment operating range.

6.2 System Power-On

Operation Steps

1. Connect the power adapter to the device
2. Connect the power adapter to the AC socket, and close the switch on the socket side.



EZU30PWR0001

7 System Commissioning

7.1 Indicator Light Description

Indicator Light Introduction

Indicat or Light	Indicator Light Status	Description
PWR		Green light steady on: device power supply normal
		Green light off: device powered off or power supply abnormal
RUN		Green light steady on/off: device operation abnormal
		Green light slow flashing: device operating normally
NET		Green light steady on: device connected to server normally
		Green light fast flashing: device connected to router, but server connection abnormal
		Green light slow flashing: Device Not Connected to Router
ALM		Red light steady on: all inverters are in operational fault state
		Red light fast flashing: data logger is upgrading
		Red light off: at least one inverter in the system is operating normally

Button Function Introduction

RST Button	Function Definition
Short press 1-3S	Device reboot
Long press 6-20S	Device reboots and restores factory default network settings, such as restoring embedded Web login password, etc.

7.2 Commissioning the System via WEB

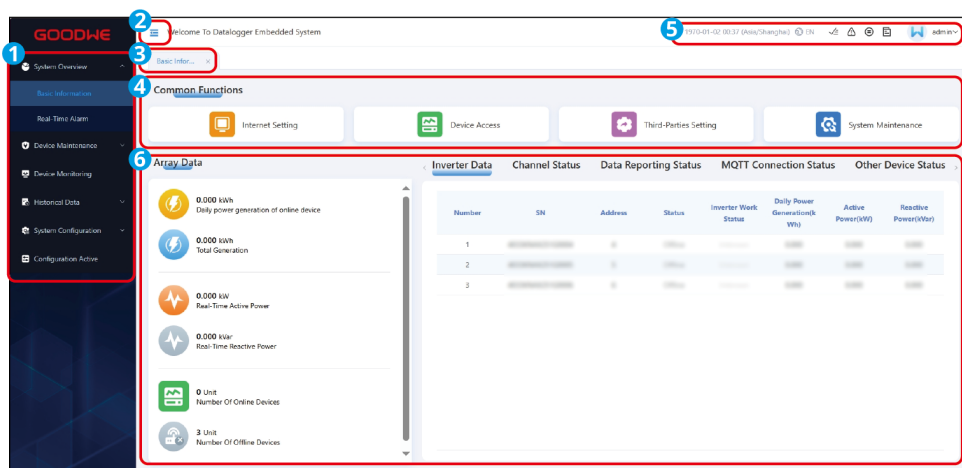
7.2.1 WEB Interface Introduction

The device supports setting related parameters through the local Web interface, viewing device operation information and error information, and learning the system status in a timely manner.

WARNING

- The Web software version corresponding to the interface images in this document is V6.9.4. The images are for reference only; the actual interface shall prevail.
- Parameter names, ranges, and default values may be changed or adjusted later. The actual display shall prevail.
- When reset, shutdown, or upgrade commands are issued to the inverter, the inverter may be disconnected from the grid, affecting Energy Generation.
- The inverter's grid parameters, Protection parameters, characteristic parameters, and power regulation parameters must be set by professionals. Incorrect settings of grid parameters, Protection parameters, and characteristic parameters may cause the inverter to be disconnected from the grid; incorrect settings of power regulation parameters may cause the inverter to fail to connect to the grid according to grid requirements, affecting Energy Generation.
- Grid dispatch parameters must be set by professionals. Incorrect settings may cause the power station to fail to connect to the grid according to grid requirements, affecting Energy Generation.

7.2.2 WEB Interface Layout



EZU30CON0011

No.	Functional Area	Description
1	Menu List	Interface menu area. You can select a primary menu as needed; after selection, the secondary menu can be displayed. Some primary menus do not have secondary menus.
2	Menu List Button	Click the Menu List button to expand or collapse the menu list.
3	Tab List	Displays opened menu tabs.
4	Common Functions	Displays commonly used setting functions for convenient operation. Settings can be configured through the menu list.
5	System Status	- Switch the system language. - Displays alarm information. Click to view real-time fault alarms. - Displays product version information. - Displays account login information. Click to log out of the account. - Commissioning Wizard.

No.	Functional Area	Description
6	Data Information	Displays the corresponding function modules or parameter settings under each menu. • Sub-array data: sub-array Energy Generation, active power, reactive power, etc. • Inverter data: inverter SN, address, communication status, operating status, Energy Generation, etc. • Channel status: IEC104 or Modbus-TCP forwarding status. • Data reporting status: FTP/SFTP or Email status. • MQTT connection status: MQTT server connection status. • Other device status: address and communication status of environmental monitoring instruments, box-type substations, and other devices.

7.2.3 WEB Interface Menu

The screenshot displays the WEB Interface Menu of the Datalogger Embedded System. The interface is divided into several sections:

- Main menu:** Located on the left, it includes categories like System Overview, Device Maintenance, and Internet Setting.
- Second-level menu:** This menu is expanded under the 'Internet Setting' category, showing options such as LAN Configuration, Third-party Device Configuration, and Logger Hotspot.
- Third-level menu:** The 'LAN Configuration' option is selected, leading to a configuration page with fields for:
 - Port Selection: ETH1
 - * Acquisition Method: STATIC
 - * IP Address: 171.156.44.13
 - * Subnet Mask: 255.255.255.0
 - * Default Gateway: 171.156.44.1
 - Preferred DNS Server
 - Spare DNS Server: 172.20.18.1
- Setting button:** A blue button at the bottom right of the configuration area to apply the settings.

EZU30CON0012

First-level menu	Second-level menu	Third-level menu	Description
System Overview	Basic Information	-	- Common function settings, such as: port settings, device access, forwarding service configuration, and system maintenance. - Basic information query, such as: today's Energy Generation of online devices, cumulative Energy Generation, real-time active power, real-time reactive power, number of online devices, number of offline devices, etc.
	Real-time fault alarms	-	Displays the fault alarm name, device SN, and occurrence time. You can click the Manual Refresh button to refresh and display the latest alarm list.
Device Maintenance	Port Settings	LAN Configuration	Configure wired network parameters. Supports connecting to northbound network management devices, etc., via the wired network.
		RS485 Configuration	Configure RS485 parameters. Supports connecting third-party devices via RS485.
		Data Acquisition Hotspot	Configure RS485 parameters. Supports connecting third-party devices via RS485.
		4G Configuration	Set the hotspot name and password of the data collector.
		PT100 PT1000	Calibrate the temperature sensor temperature.
	Device Access	-	Add inverters, electricity meters, and other devices through automatic search or manual addition.
		IEC104	Configure IEC parameters.

First-level menu	Second-level menu	Third-level menu	Description
	Forwarding Configuration	Modbus-TCP	Set Modbus-TCP forwarding parameters.
		IEEE2030.5	Set IEEE 2030.5 parameters.
	Parameter Settings	Data Logger	Set data logger port parameters, runtime log parameters, and array capacity, sample unit, northbound link Protection, and other parameters.
		Inverter	Set inverter grid parameters, Protection parameters, characteristic parameters, and power regulation parameters.
		Meter	Set meter parameters, such as CT ratio, PT ratio, and wiring mode.
		Box-type transformer	Control box-type transformer remote control settings.
	Device Upgrade	Data Logger	Upgrade the data logger version.
		Inverter	Upgrade the inverter version, including DSP version, ARM version, module version, etc.
	Device Log	-	View device runtime logs, operation logs, maintenance logs, such as web login/logout, password change, etc.
	Remote Shutdown	OVGR&RPR	Set OVGR&RPR parameters. Only applicable to Japan.
		One-click Shutdown	Set one-click shutdown parameters. Only applicable to Germany.
		AC Fault Detection	Set AC fault detection parameters. Only applicable to Japan.
		Power Limitation	Set grid-connected power limitation parameters.

First-level menu	Second-level menu	Third-level menu	Description
	Power Regulation	Reactive Power Compensation	Set Power Factor target parameters.
		DRED	Set DRM parameters. Only applicable to Australia.
		RCR	Set RCR parameters. Only applicable to Europe.
		DER_AVM	Set DER_AVM parameters. Only applicable to South Korea.
		Output Control	Set the output control parameters. Only applicable to Japan.
		Communication Exception Configuration	Configure the handling method for communication exceptions of the data logger.
Device Monitoring	-	Inverter	View inverter parameter information.
		Environmental Detector	View environmental detector parameter information.
		Meter	View meter parameter information.
		Box-type transformer	View box-type substation parameter information.
		IEC104	View IEC104 parameter information.
Historical Data	Historical Faults and Alarms	-	View historical fault and alarm information.

First-level menu	Second-level menu	Third-level menu	Description
Data Logger Configuration	System Maintenance	-	• Restart Data Logger • Restore Factory Settings • Import Full Configuration File • Export Full Configuration File • Commissioning Wizard
	System Time	-	Set the system time synchronization clock source. Currently supports GoodWe cloud platform time synchronization, NTP, Modbus-TCP, and manual time synchronization.
	Security Settings	-	Set security parameters, such as account password.
	System Debugging	-	For internal testing.
	Version Information	-	View data logger version information, such as SN, main program version, firmware version, etc.
Configuration Effective	-	-	Save the settings parameters. After modifying the networking configuration or parameters, click Apply to make the configuration take effect and confirm the settings.

7.2.4 Log in to WEB Interface

NOTICE

- Ensure that all devices in the PV system are correctly installed and powered on.
- Before logging in to the Web interface, ensure the device meets the following requirements:
 - Supports Windows 7 and later operating systems.
 - Browser: Chrome 68 and Firefox 78 or later are recommended.
 - The computer's network port has been connected to the device's switch port using an Ethernet cable.
- After completing the interface configuration, unplug the Ethernet cable from the ETH port.
- To ensure account security, the same account cannot log in to both the Web and App to commission devices at the same time.

Method 1: Procedure for logging in to the Web interface using the default IP

1. Connect the computer to the ETH2 port of the data logger using an Ethernet cable.
2. On the computer, select 'Network & Internet' > 'Change adapter options.' In the Network Connections dialog box that appears, right-click and select 'Properties,' and configure the IP addresses of the computer and the device in the same subnet.

No.	IP parameters	Factory default	Example of computer settings
1	IP address	172.18.0.12	172.18.0.22
2	Subnet mask	255.255.255.0	255.255.255.0
3	Default gateway	172.18.0.1	172.18.0.1

3. In the browser address bar, enter <https://172.18.0.12> to access the login page.
4. Select the language as required. Log in to the Web interface with the initial username and password. Initial username: admin; initial password: 123456.

Method 2: Procedure for logging in to the Web interface using a dynamic IP

1. Connect both the data logger and the computer to the router via Ethernet cables.
2. View the IP address assigned by the router to the data logger on the router

management page.

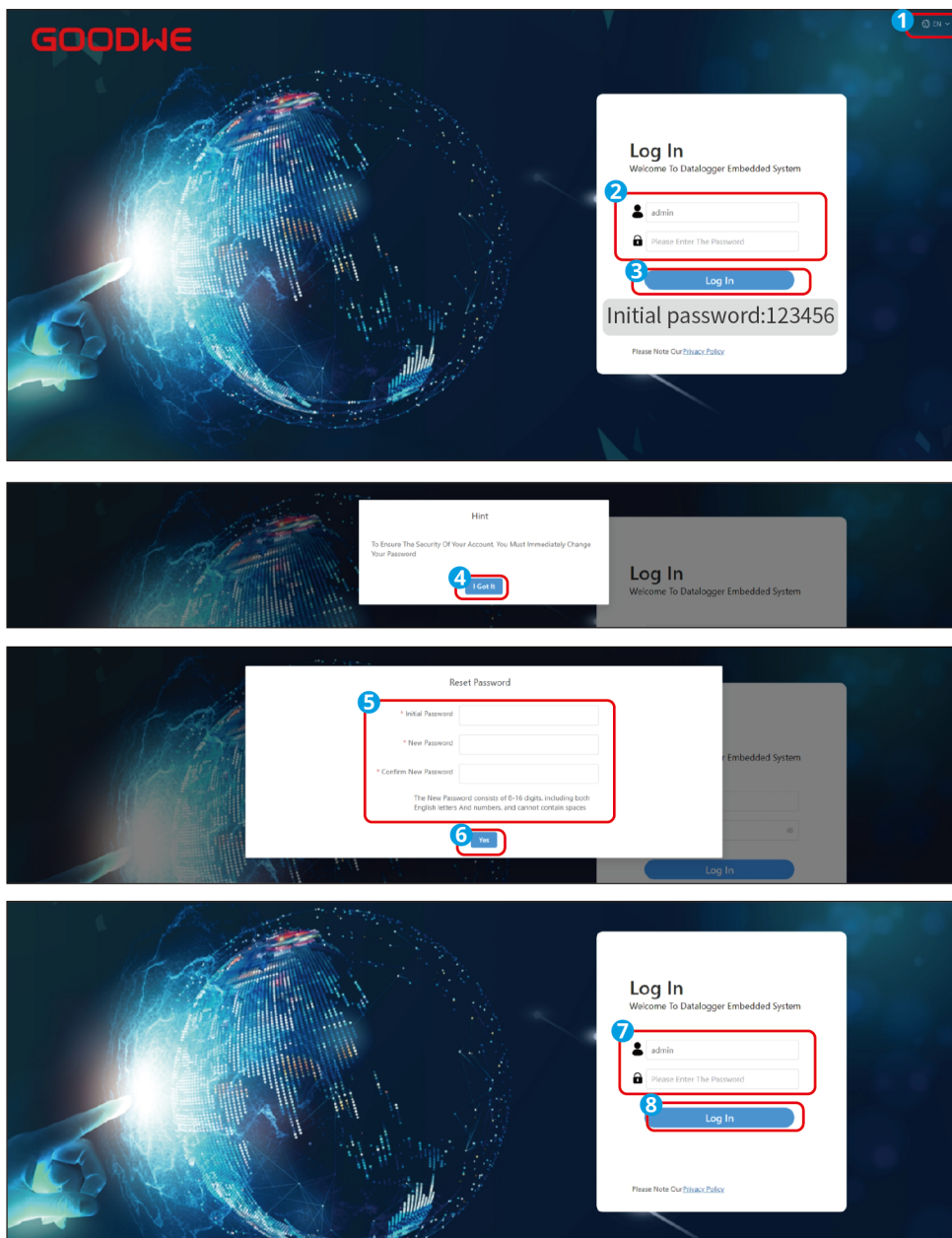
3. Enter the assigned IP address in the browser address bar to access the login page.
4. Select the language as required. Log in to the Web interface with the initial username and password. Initial username: admin; initial password: 123456.

Method 3: Procedure for logging in to the Web interface using Wi-Fi

1. Connect the computer to the data logger's default Wi-Fi name: Log-***, where *** is the device serial number. Default Wi-Fi password: 12345678.
2. In the browser address bar, enter <https://172.18.0.12> to access the login page.
3. Select the language as required. Log in to the Web interface with the initial username and password. Initial username: admin; initial password: 123456.

NOTICE

- For the first login, use the initial password and change it as soon as possible. Be sure to remember the password. To ensure account security, it is recommended to change the password regularly.
- If you forget the changed password, press and hold the RST button on the EzLogger for 6-20 seconds to restore the default password.



EZU30CON0014

7.2.5 Commissioning Wizard Configuration

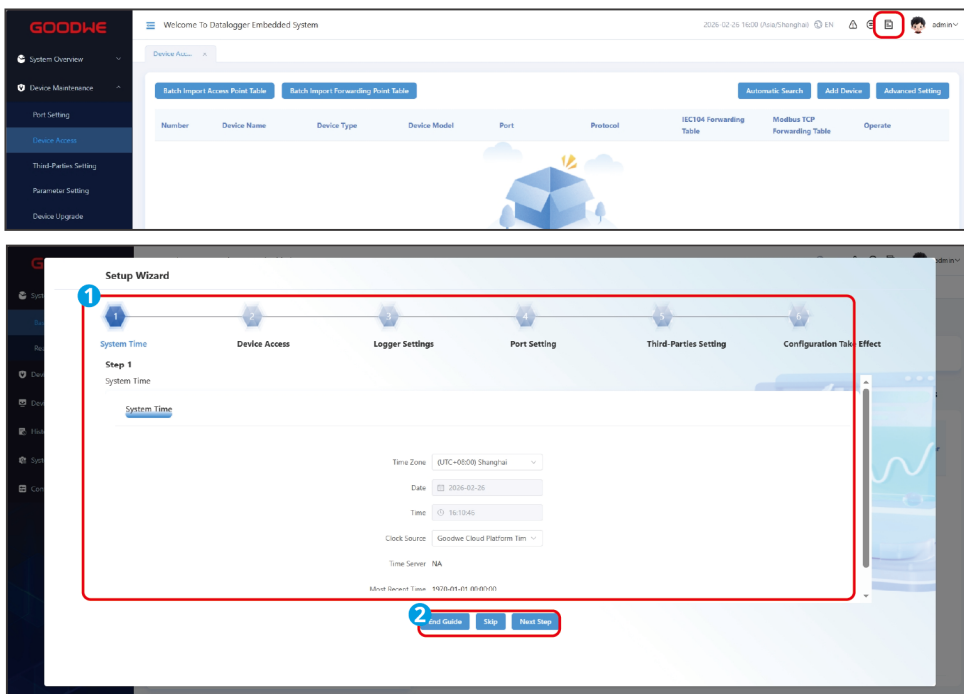
- When the user logs in for the first time, the interface prompts you to perform Quick Configuration of the system through the Startup Wizard. Configure the system based on the on-screen instructions and actual requirements. It supports connecting devices, setting data logger parameters, port parameters, third-party forwarding parameters, etc.
- If you do not need to configure the system for the time being, you can click End

Wizard; if you do not need to configure a certain function for the time being, you can click Skip.

- If you need detailed information about the setting functions, refer to the function descriptions in the corresponding chapters of the manual.

Operating steps:

1. When the user logs in for the first time, the Startup Wizard screen is displayed after login. If you have exited the wizard screen, you can click  to enter it again.
2. During parameter setting, click Previous, Next, or Skip as needed to perform the corresponding settings.



EZU30CON0082

7.2.6 Device Management

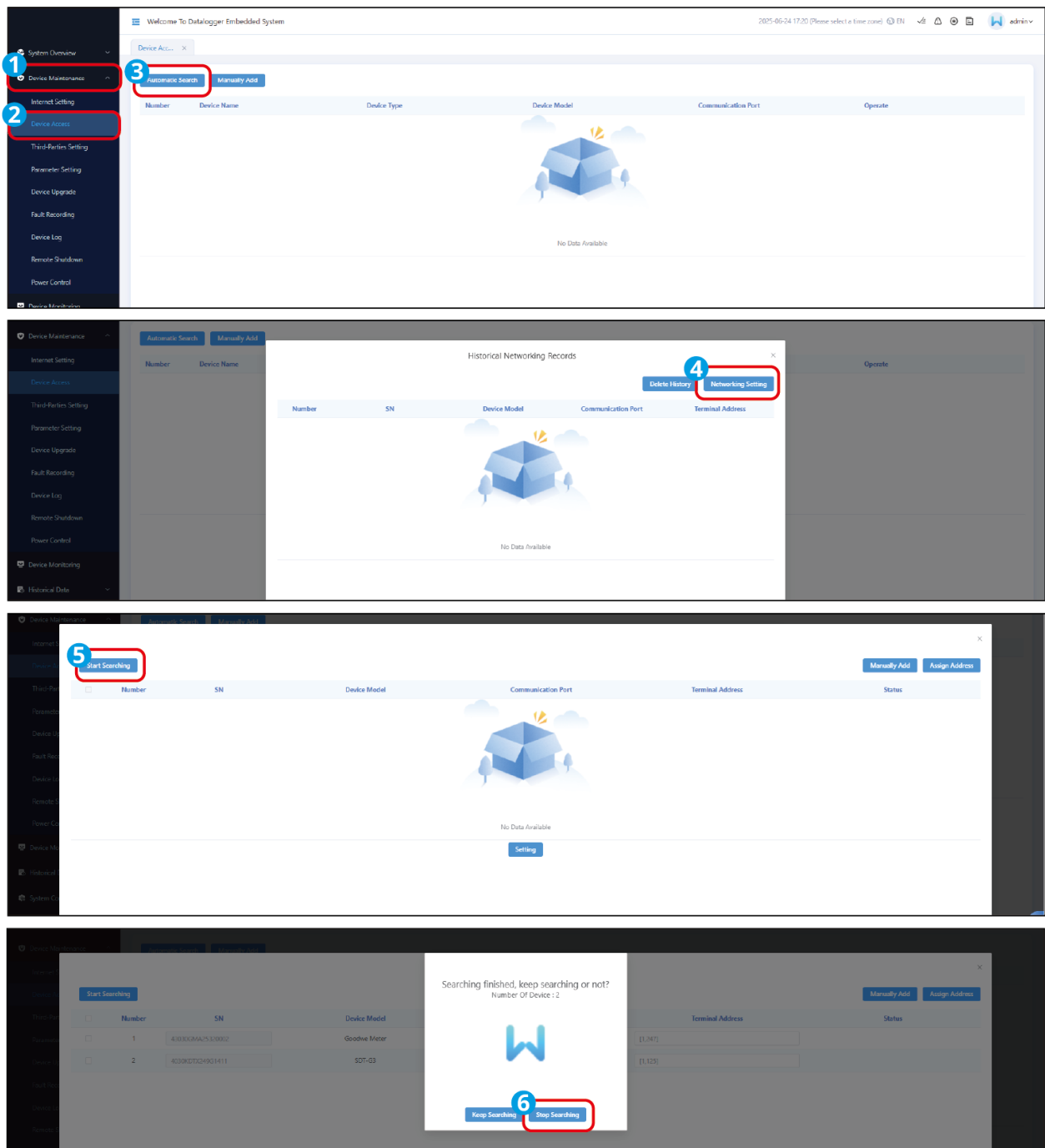
7.2.6.1 Automatically Search and Add Devices

NOTICE

- Before setting up networking, confirm that the inverter's operating status and communication status are normal.
- Auto search cannot find third-party devices, such as third-party meters. If you need to add them, perform a manual addition.

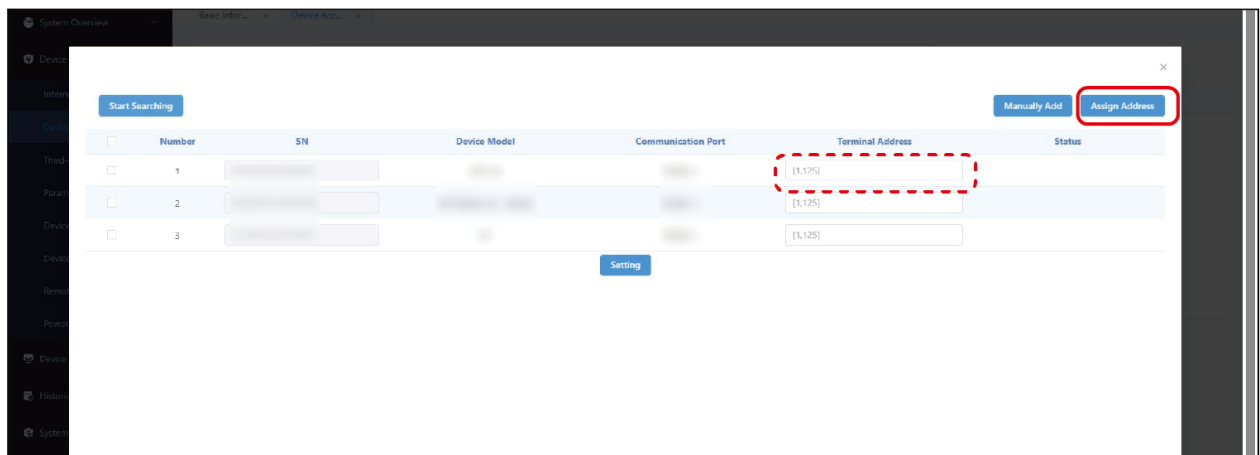
Operation Steps

1. Search for devices according to the following steps, When the number of devices found displayed on the interface matches the actual number of devices, click End Search. If any device cannot be found, check whether the device's RS485 wiring is normal.



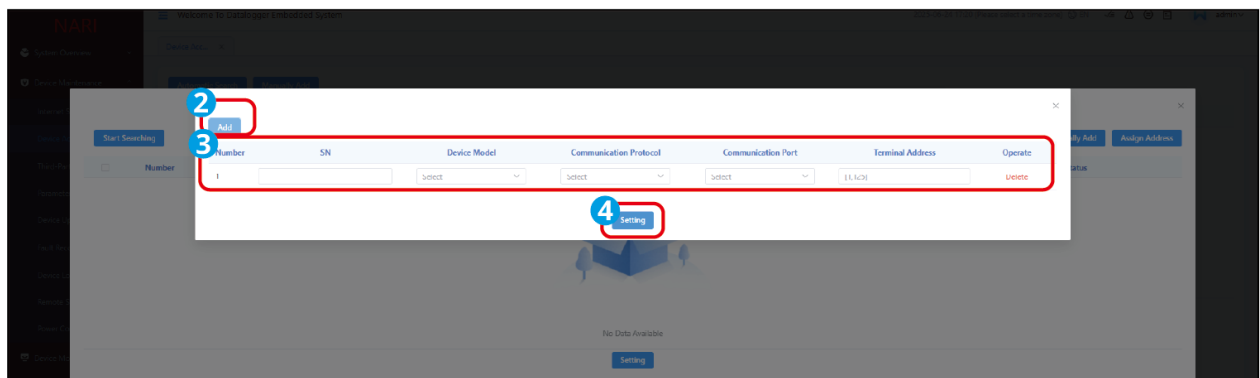
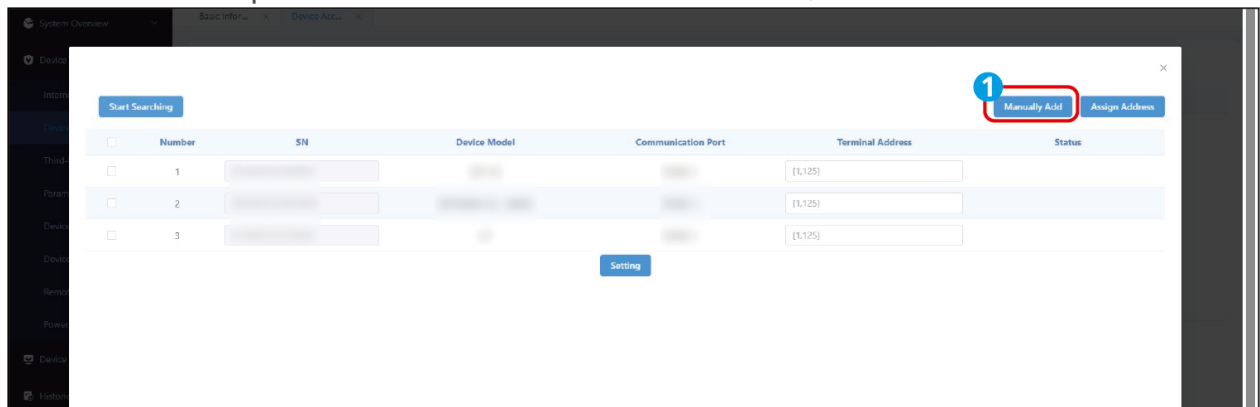
EZU30CON0048

2. Enter the terminal address manually as required or automatically assign it via one-click address assignment. Ensure that all device terminal addresses are unique. Inverter address range: 1-125, meter address range: 1-247.



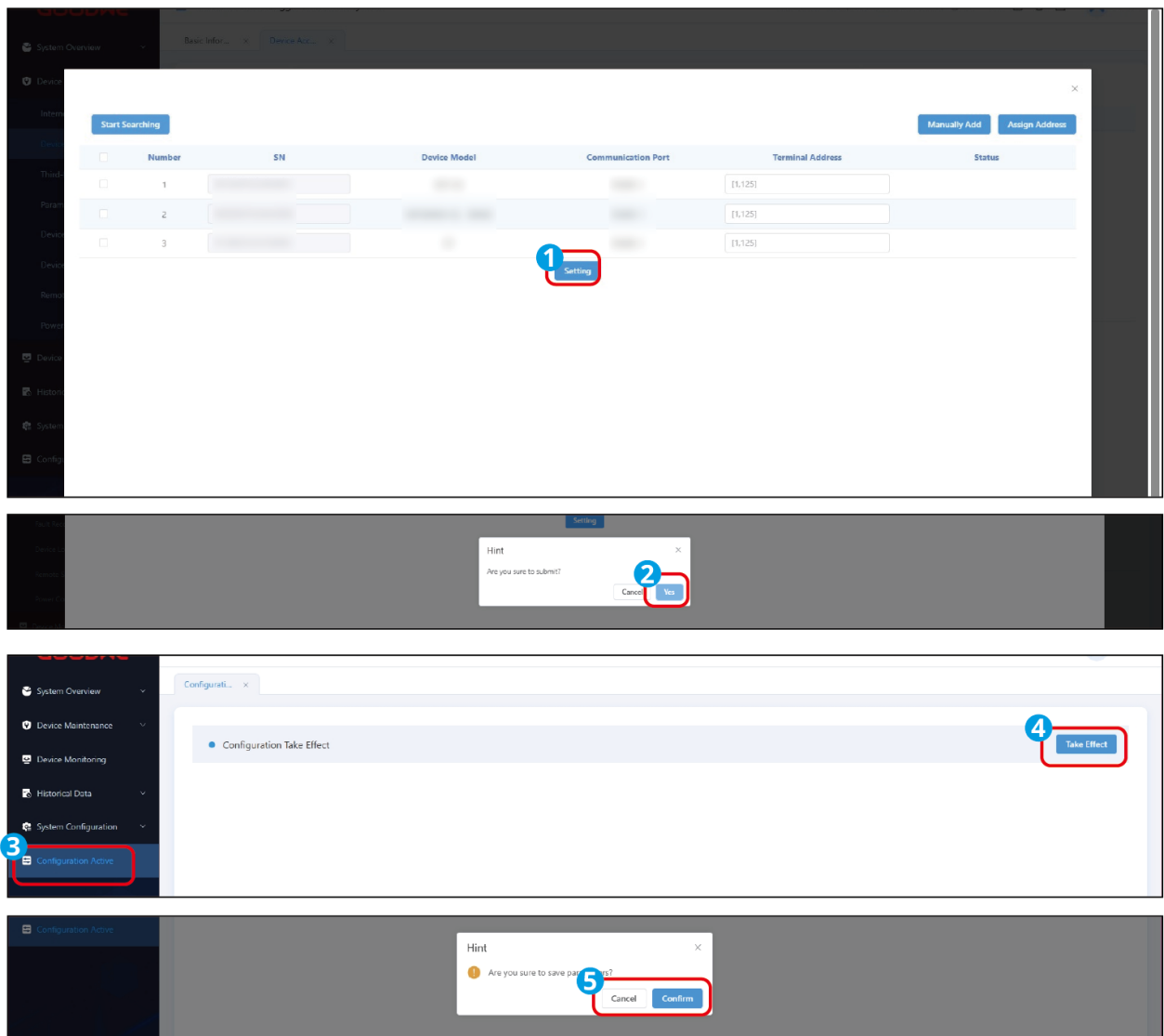
EZU30CON0049

3. (Optional) If required, you can enter device information through manual addition, to add the device. Before adding, confirm the device model, device SN, communication port to which the device is connected, and other information.



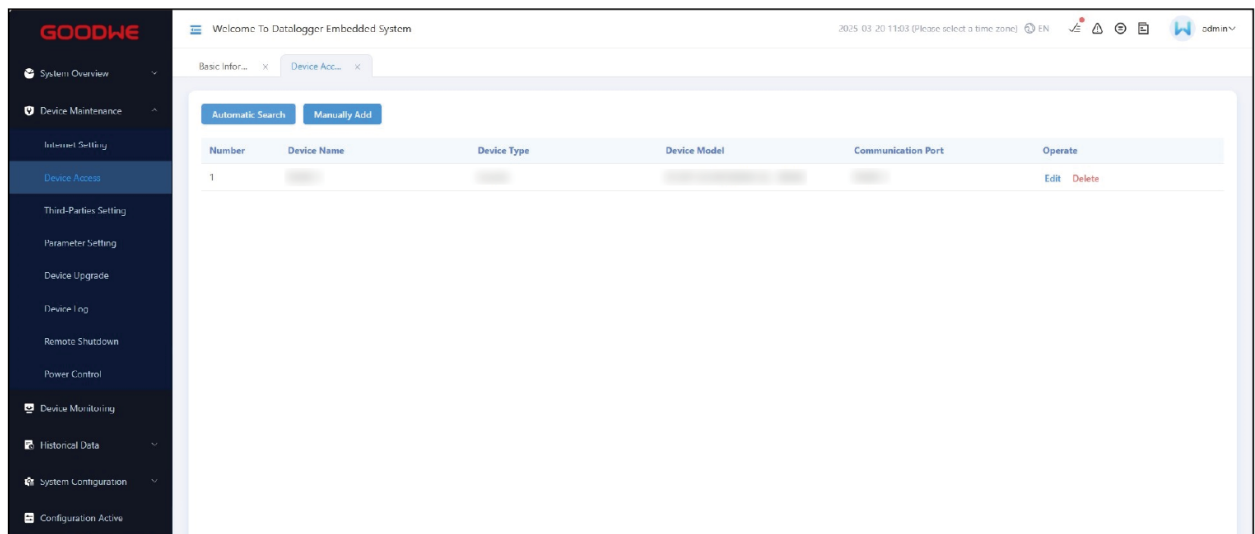
EZU30CON0050

4. Click 「Settings」, and follow the prompts to go to Configuration Take Effect. After clicking "Configuration Take Effect", the data logger will restart. Please log in again according to the interface prompts.



EZU30CON0051

- After System Network Settings are completed, return to the Device Access screen and confirm whether the networking information is complete and correct.



EZU30CON0052

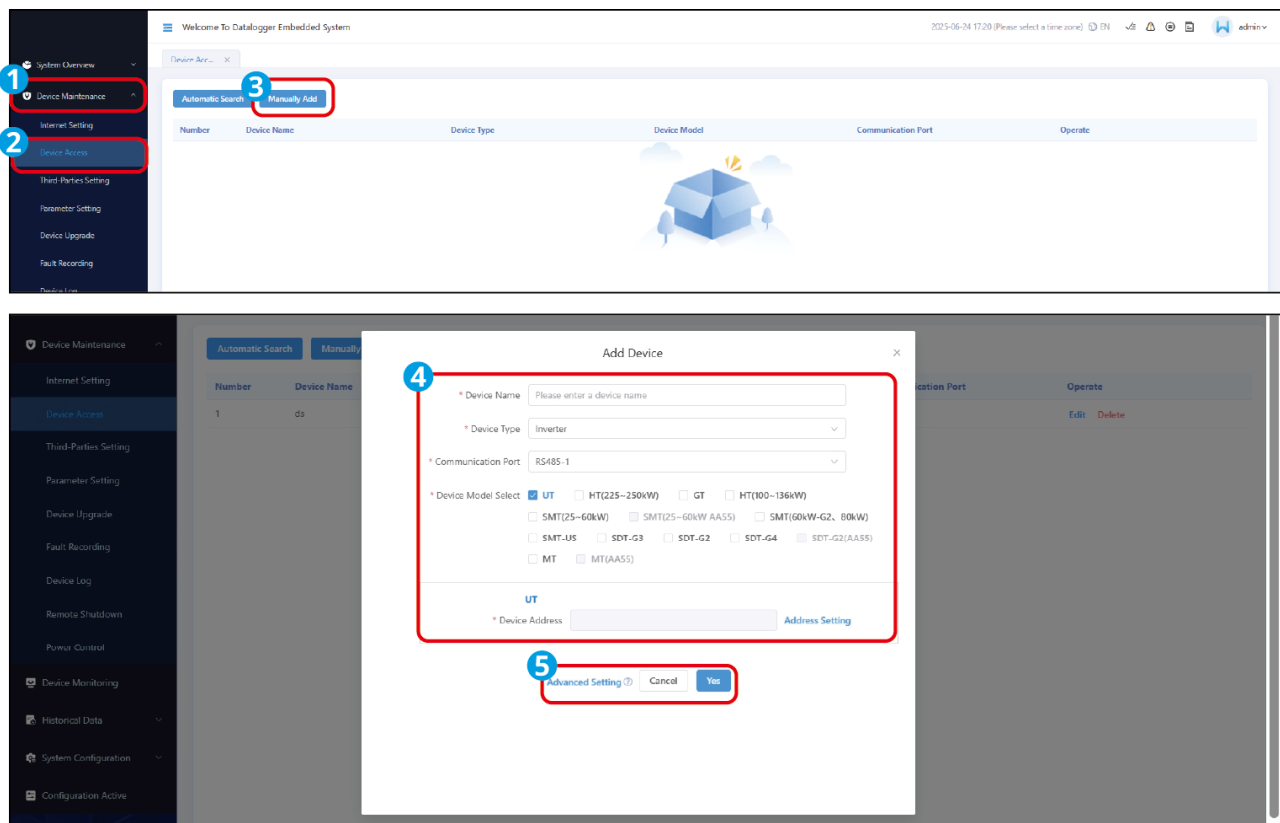
7.2.6.2 Manually Add Devices

NOTICE

- If you need to manually add a device, confirm in advance the device model, device SN, communication port to which the device is connected, and other information. Otherwise, the addition may fail.
- Click Edit or Delete to modify or delete the parameters of the added device.

Operation Steps

1. Via "Device Maintenance" > "Device Access" > "Add Device" to enter the Add Device screen.
2. Set the device parameters as required.
3. Return to the "Device Access" screen and click "Settings".
4. Click "Configuration Take Effect" to complete the addition.



EZU30CON0038

Add Inverter

Parameter Name	Description
Device Name	Custom device names are supported. Name the device according to actual conditions.
Device Type	Set as inverter.
Communication Protocol	Set according to the inverter's communication protocol. Supported: Modbus-RTU.
Communication Interface	Set according to the port through which the device is actually connected to the data logger.
Device Model	Set the actual connected inverters. Mixed inverter connections are supported. The same RS485 communication channel can connect UT and HT (225~250kW), or connect GT, HT (100~136kW), SMT (25~60kW), SMT (80kW), SMT-US, SDT-G3, or SDT-G2.

Parameter Name	Description
Terminal Address	- Set the inverter terminal address according to actual plant planning. If setting based on actual conditions is not required, you can choose automatic generation. - Ensure that different devices have different addresses.

Add Meter

Parameter Name	Description
Device Name	Custom device names are supported. Name the device according to actual conditions.
Device Type	Set as a meter.
Communication Protocol	Set according to the meter's communication protocol. Supported: Modbus-RTU.
Communication Interface	Set according to the port through which the device is actually connected to the data logger.
Device Subtype	- This option is displayed when using a meter with Modbus-RTU protocol. Set according to the actually connected meter model. - Supported: GoodWe meter (GM330), Schneider-IEM3255, Janitza-UMG604, PRISMA-310A Lite/310A*, MIKRO-DPM680, Mitsubishi-ME110SS, IRA 2.0-Bf, Acrel-DTSD1352-CT, etc.

Parameter Name	Description
Meter Usage	• Select according to the meter's actual usage. Supported: Grid-side meter or Grid connection point meter. • Grid-side meter: used for Power Limit, supports GoodWe meter (GM330). • Grid connection point meter: used for metering, supports Schneider-IEM3255. • When multiple meters are connected in the system for Power Limit, set all Power Limit meters as grid-side meters.
Terminal Address	• The device address of the meter, set according to actual plant planning. If setting based on actual conditions is not required, you can choose automatic generation. • Do not set the meter address and inverter address to the same address.
Access Point Table	Select the access point table according to actual conditions.

Add Other Devices

Parameter Name	Description
Device Name	Custom device names are supported. Name the device according to actual conditions.
Device Type	Set as other device.
Communication Protocol	Set according to the device's Communication Protocols. Supported: Modbus-RTU, Modbus-TCP, GW-XPB, and 104 master.
When the communication protocol is set to Modbus-RTU, set the following parameters according to actual requirements:	

Parameter Name	Description
Communication Interface	Set according to the port on the data logger that the device is actually connected to. Currently supports RS485-1, RS485-2, RS485-3, RS485-4.
Device Model	- Set the device subtype. Supported: Environmental Monitoring Device, Box Transformer, Other. - If you need to add an environmental monitoring device, manually click the Add Environmental Monitoring Device button, and enter the environmental monitoring device address and point table. Supported environmental monitoring device models: IMT Technology Digital Module Temperature Sensors Tm-RS485-MB / Tm-RS485-MB-A, Hukseflux SRO5-D1A3 & SRO5-D2.
Box Transformer Subtype	When the device subtype is selected as Box Transformer, set the Box Transformer subtype to Conventional or Split-type.
Terminal Address	Device address, set according to actual plant planning. Ensure that different devices have different addresses.
Protocol Type	Select the protocol type used according to the device.
Access Point Table	Import the access point table of the connected device.
IEC104 Forwarding	Select according to the imported device forwarding point table.
Modbus-TCP Forwarding	Select according to the imported device forwarding point table.
When Communication Protocols is set to Modbus-TCP, set the following parameters according to actual requirements:	
Associated Device	When Communication Protocols is selected as Modbus-TCP, set Associated Device to General.

Parameter Name	Description
Communication Mode	Set according to the communication mode of the device. UDP, TCPClient, and TCPServer are supported.
Local IP Address	Set to the IP address corresponding to the network port on the data logger to which the other added devices are connected.
Local Port	- Set to the port number of the data logger. The default value is "502". - For GoodWe devices, set the default value; for third-party devices, configure according to actual settings.
Peer IP Address	Set to the IP address of the other added device.
Peer Port	- Set to the port number of the other added device. If it is not a fixed port number, enter "0". - For GoodWe devices, set the default value; for third-party devices, configure according to actual settings.
Terminal Address	- Device Address. Set it according to the actual plant planning. If setting according to actual conditions is not required, Auto Generate can be selected. - Ensure that different devices have different addresses.
When the communication protocol is set to GW-XPB, set the following parameters according to actual requirements:	
Communication Interface	Set according to the actual port on the EzLogger to which the device is connected.
Terminal Address	Device Address. Set it according to the actual plant planning. If setting according to actual conditions is not required, Auto Generate can be selected.

Parameter Name	Description
When Communication Protocols is set to 104master, set the following parameters according to actual requirements:	
Local IP Address	Set to the IP address corresponding to the Ethernet port of the data logger.
Local Port	It is recommended to set it to 0.
Peer IP Address	Set to the IP address of the peer device collected through the 104master protocol.
Peer Port	Set to the port number of the peer device collected through the 104master protocol.
Opposite Side Common Address	Set to the 104 common address of the peer device collected through the 104master protocol.
Originator Address	Set the IEC 60870-5-104 source address of the data logger.
Access Point Table	Set the IEC 60870-5-104 protocol point table used by the peer device.
IEC104 Forwarding	The IEC 60870-5-104 address mapping table used by the data logger to forward peer device data.
Modbus TCP Forwarding	The Modbus TCP address mapping table used by the data logger to forward peer device data.
Box-type Transformer Power Mapping	Power data mapping table of the peer device.

7.2.7 Set Port Parameters

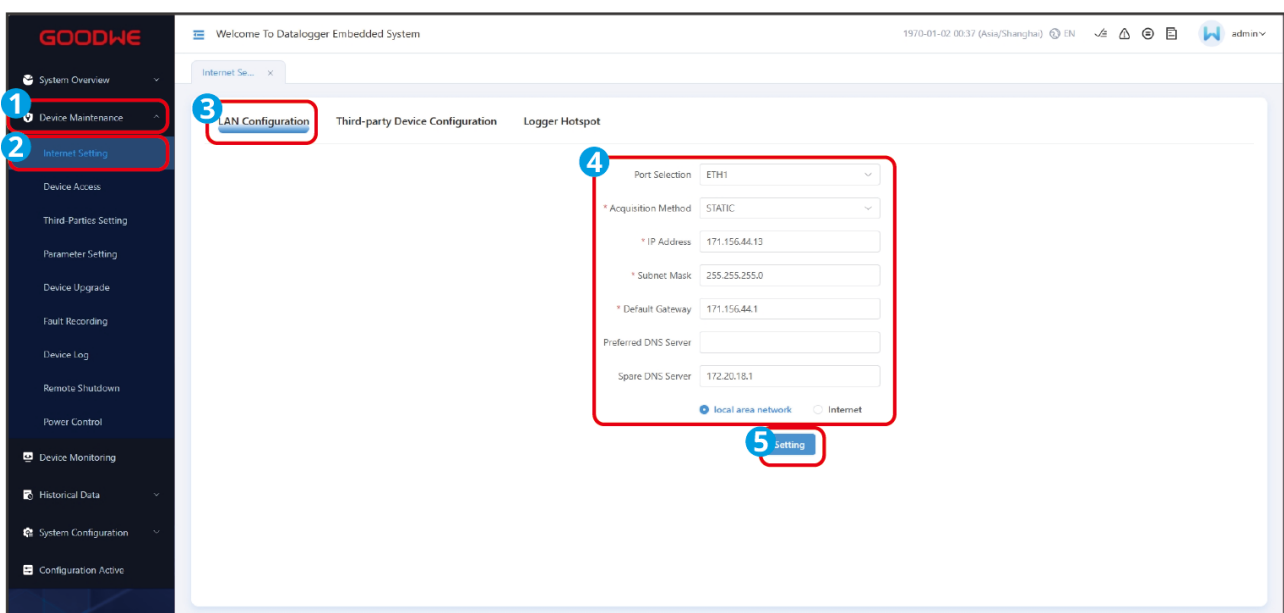
7.2.7.1 Set LAN Communication Parameters

NOTICE

- Before configuring LAN parameters, ensure that the network cable is correctly connected to the data logger.
- After the system networking configuration is complete, LAN configuration for the ETH1 and ETH2 ports is automatically completed without additional configuration. At this time, the ports are in DHCP state by default.

Operation Steps

1. Go to the parameter settings screen via "Device Maintenance" > "Port Settings" > "LAN Configuration".
2. Set the ETH port parameters according to actual requirements.



EZU30CON0017

Parameter Name	Description
Port Selection	Set the network port actually connected to the data logger. Supported: ETH1, ETH2.

Parameter Name	Description
Source	• When using STATIC mode, the relevant network parameters are fixed and must be set manually. • When using DHCP mode, an IP address can be obtained automatically, and registration is completed automatically.
IP address	Configure according to the power station plan. If the IP address is modified, you need to log in again using the new IP address.
Subnet mask	Configure according to the actual subnet mask of the LAN where the data logger is located.
Default gateway	Configure according to the actual gateway of the LAN where the data logger is located.
Preferred DNS server	This parameter setting can be ignored when connecting to a LAN. Configure this when connecting to a public network (e.g., connecting to a hosted cloud, Email, third-party FTP, etc., where the server address uses a domain name); set it to the IP address of the LAN router.
Alternate DNS server	Under normal circumstances, this parameter setting can be ignored. When the preferred DNS server cannot resolve a domain name, the alternate DNS server is used.
LAN/Internet	• If you need to connect to a server to transmit data to the GoodWe Cloud, select Internet. • If you need to set forwarding parameters to connect to a third-party monitoring platform, etc., select LAN.

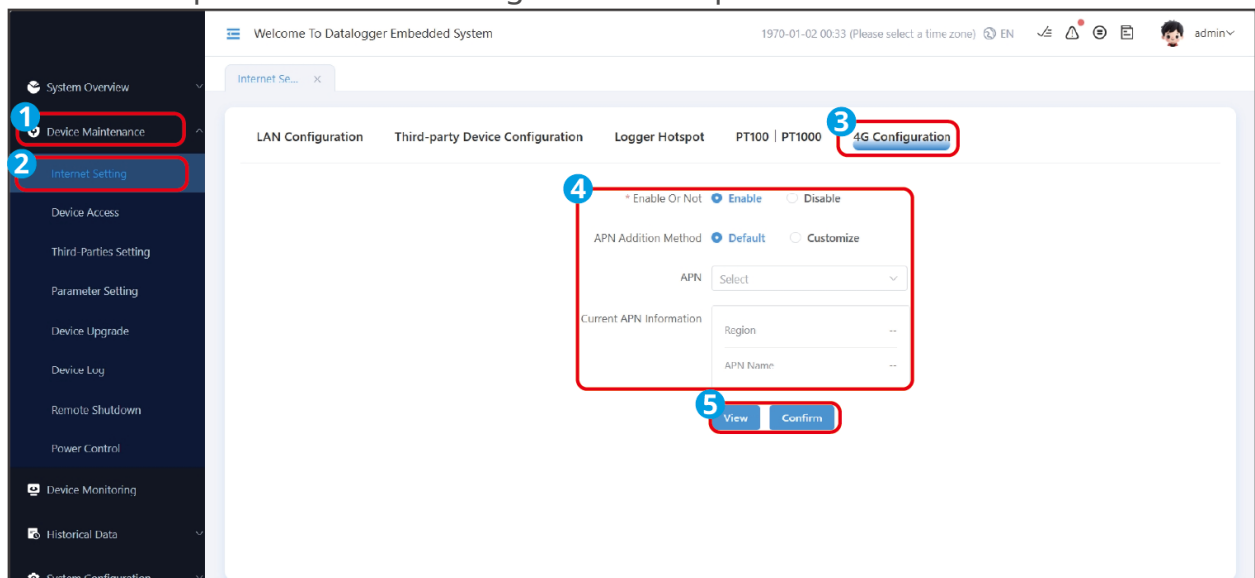
7.2.7.2 Set 4G Parameters

NOTICE

- The 4G function is available in some regions. For details, consult your local dealer.
- When communicating via 4G, disconnect the network cable between the data logger and the router; otherwise, communication may fail.

Operation Steps

1. Go to "Device Maintenance" > "Port Settings" > "4G Configuration" to access the parameter setting screen.
2. Set the APN parameters according to actual requirements.



EZU30CON0016

Parameter Name	Description
Whether to Enable	Enable or disable the 4G setting. This applies only when the data logger is connected to the system via a 4G network.
APN	Select the carrier according to actual conditions.

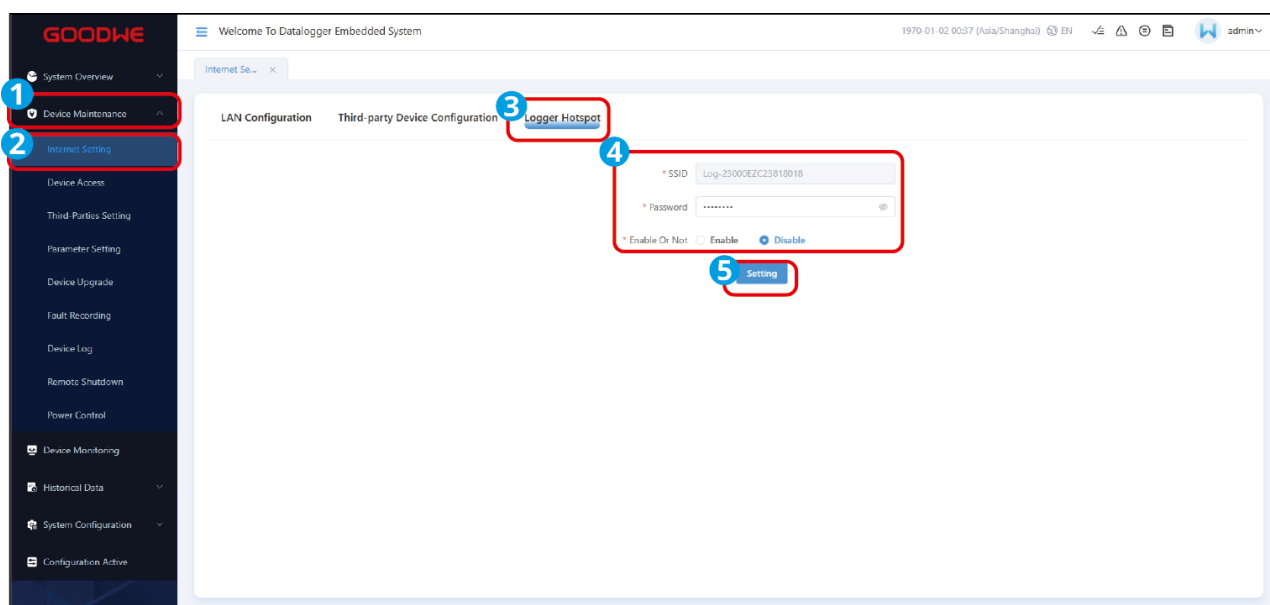
7.2.7.3 Set Wifi Password

NOTICE

- The data logger provides a WiFi hotspot signal for local configuration. After connecting to the WiFi hotspot signal via the Web or SolarGo App, you can commission the data logger.
- The hotspot signal SSID and password can be modified. After modification, use the new SSID and password to log in to the Web or App again.

Operating steps:

1. Go to "Device Maintenance" > "Port Settings" > "Data Logger Hotspot" to enter the parameter settings screen.
2. Set the WiFi hotspot signal password based on actual requirements.

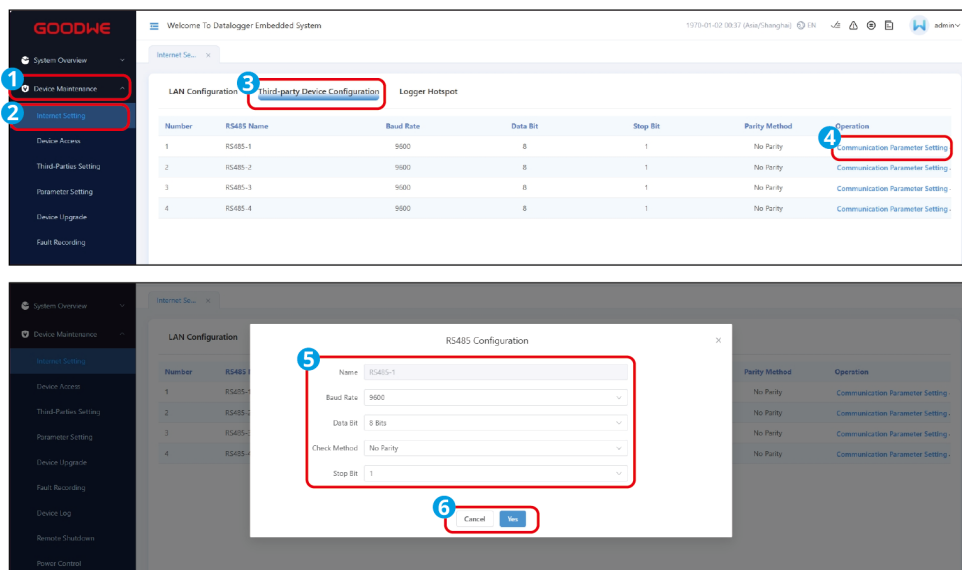


EZU30CON0045

7.2.7.4 Set RS485 Communication Parameters

Operating steps:

1. Go to "Device Maintenance" > "Port Settings" > "RS485 Configuration" to enter the parameter settings screen.
2. Configure the communication parameters based on actual requirements.



EZU30CON0018

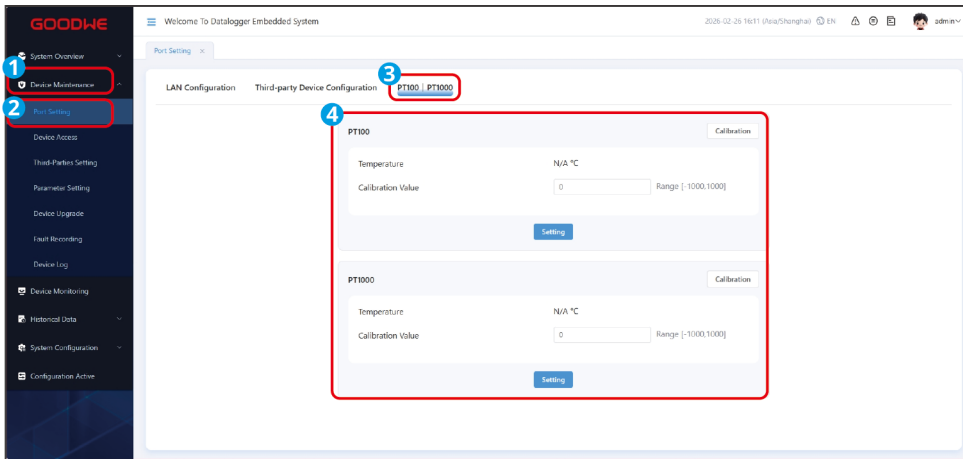
Parameter Name	Description
Name	Select according to the RS485 port to which the device is actually connected.
Baud Rate	Set according to the baud rate of the connected device. Currently supported: 300, 1200, 2400, 9600, 19200, and 115200.
Data Bits	Currently supported: 7 bits and 8 bits.
Parity Mode	Set according to the parity mode of the connected device. Currently supported: No parity, odd parity, even parity, 0 parity, and 1 parity.
Stop Bits	Set according to the stop bits of the connected device. Currently supported: 1, 1.5, and 2.

7.2.7.5 Set PT100/PT1000 Parameters

Supports calibration of the PT100/PT1000 temperature sensor using the temperature value corresponding to the standard reference resistor.

Operation Steps

1. Go to the parameter setting interface through "Device Maintenance" > "Port Settings" > "PT100/PT1000".
2. Connect the standard resistor, click "Calibrate", and fill in the "Calibration Temperature" according to the temperature value corresponding to the standard resistor.
3. After calibration is completed, connect the temperature sensor.

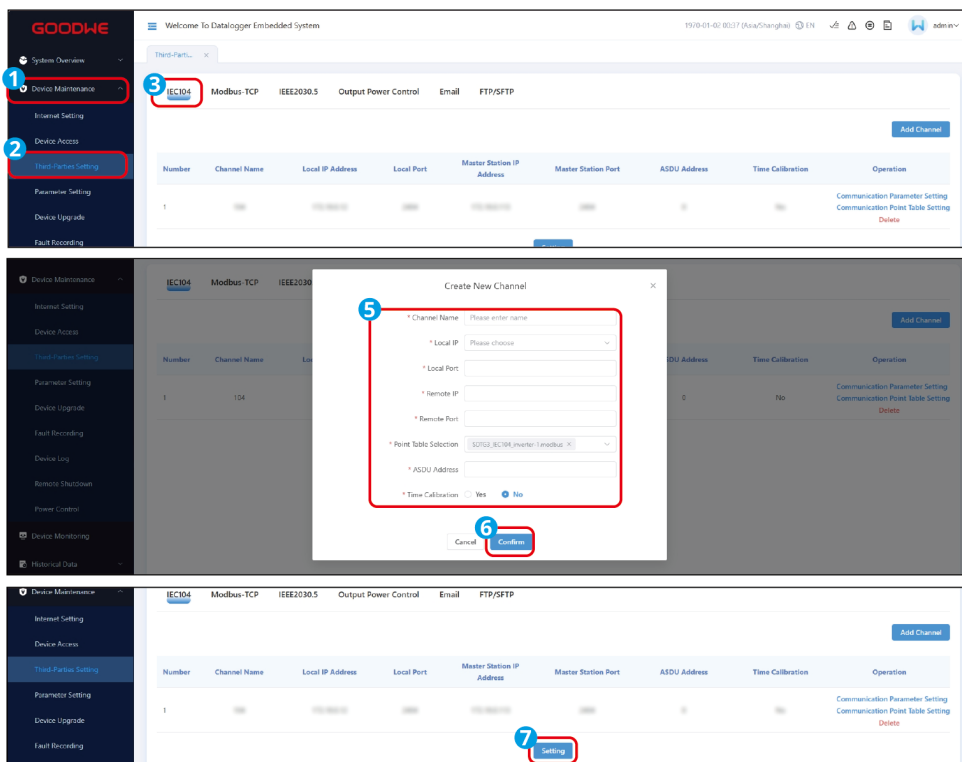


EZU30CON0089

7.2.8 Set Forwarding Parameters

7.2.8.1 Set IEC104 Parameters

When the data collector is connected to the management system via the IEC104 protocol, IEC104 parameters need to be set.



EZU30CON0006

Parameter Name	Description
Channel Name	Custom device names are supported. Name the device according to actual conditions.
Local IP	Set to the IP address of the data collector.
Local Port	Set to the port number of the data collector.
Peer IP	Set to the IP address of the IEC104 management system.
Peer port	Set to the port number of the IEC104 management system. If the peer port number is not fixed, enter "0".
Point Table Selection	After the device is connected and the forwarding point table is imported, when configuring forwarding, the management system forwarding point table can be mapped. Select it according to actual requirements.
ASDU address	IEC104 management system address.

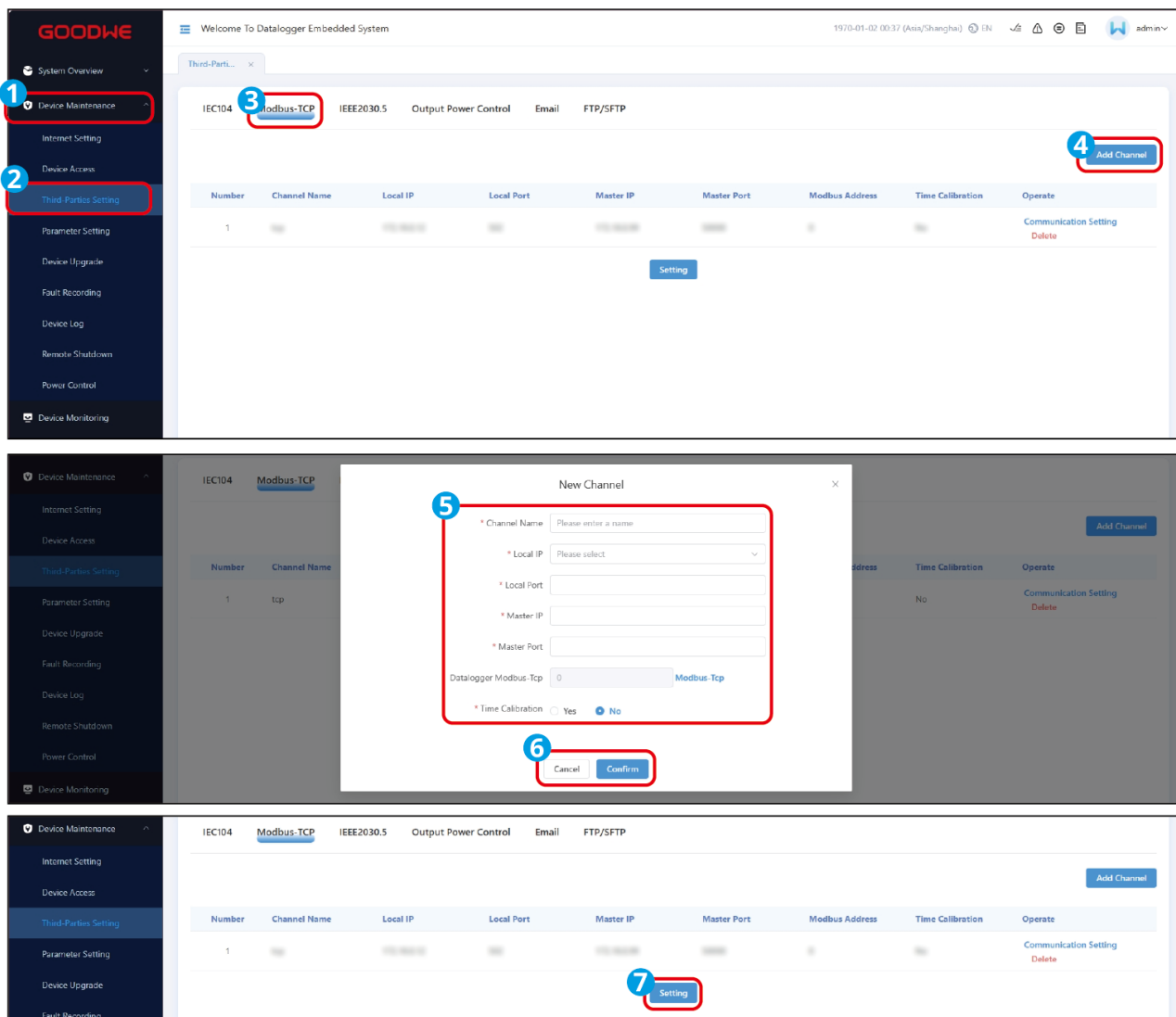
Parameter Name	Description
Time synchronization	Set whether to synchronize time with the peer device according to actual conditions.

7.2.8.2 Set Modbus-TCP Parameters

Configure forwarding parameters to forward the data collected by the control box to a third-party monitoring platform through the Modbus-TCP protocol.

Operation Steps

1. Go to "Device Maintenance" > "Forwarding Settings" > "Modbus-TCP" to enter the parameter settings screen.
2. Add a Modbus-TCP channel based on actual requirements and set the communication parameters.



EZU30CON0008

Parameter Name	Description
Channel Name	Custom device names are supported. Customize the device name based on actual conditions.
Local IP	Set to the IP address of the control box.
Local Port	Set to the port number of the control box. The default value is 502.
Master IP	Set to the IP address of the Modbus-TCP management system.
Master Port	Set to the port number of the Modbus-TCP management system.
Point Table Selection	Import the point table as required.

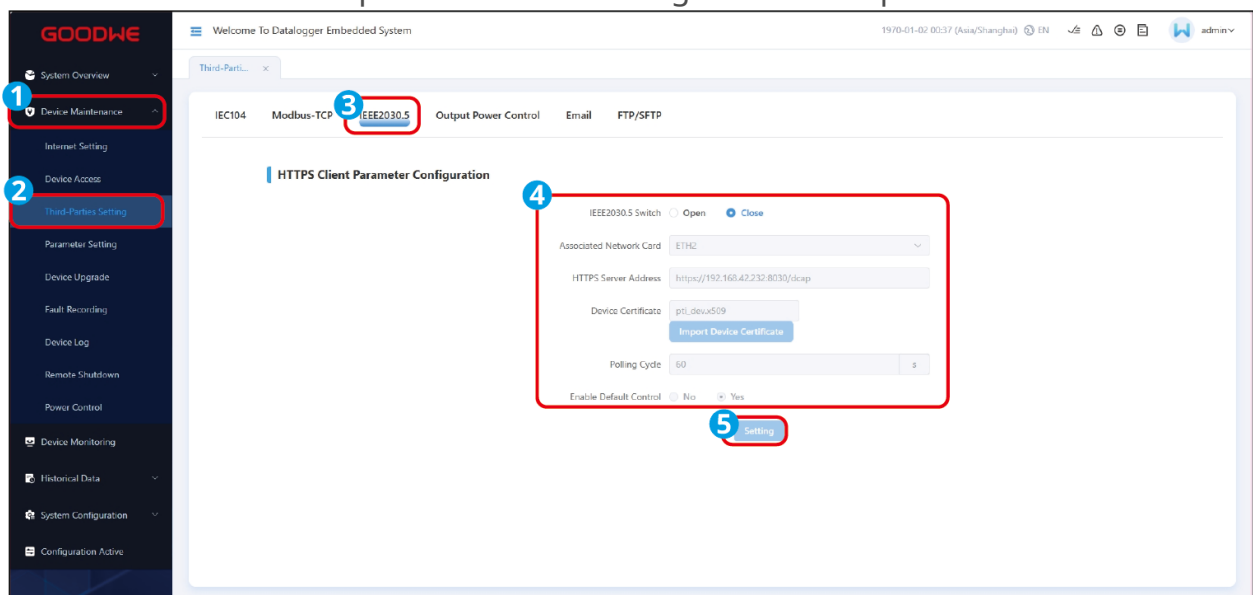
Parameter Name	Description
Data Acquisition TCP Address	Set the Modbus-TCP management system address. To modify the address, click "Modbus-Tcp".

7.2.8.3 Set IEEE2030.5 Parameters

According to requirements in North America and other regions, when the device needs to communicate using the IEEE2030.5 protocol specification, IEEE2030.5 parameters must be set.

Operation Steps

1. Via "Device Maintenance"> "Forwarding Settings" > "IEEE2030.5" to enter the parameter settings screen.
2. Set the communication parameters according to actual requirements.



EZU30CON0007

Parameter Name	Description
IEEE2030.5 switch	Enable or disable IEEE2030.5.

Parameter Name	Description
Associated NIC	Set the IEEE2030.5 forwarding network port according to actual conditions.
HTTPS server address	Set the HTTPS server address according to actual conditions.
Device certificate	Import the device certificate.
Polling period	Set the polling period.
Enable default control	Enable IEEE2030.5 default control.

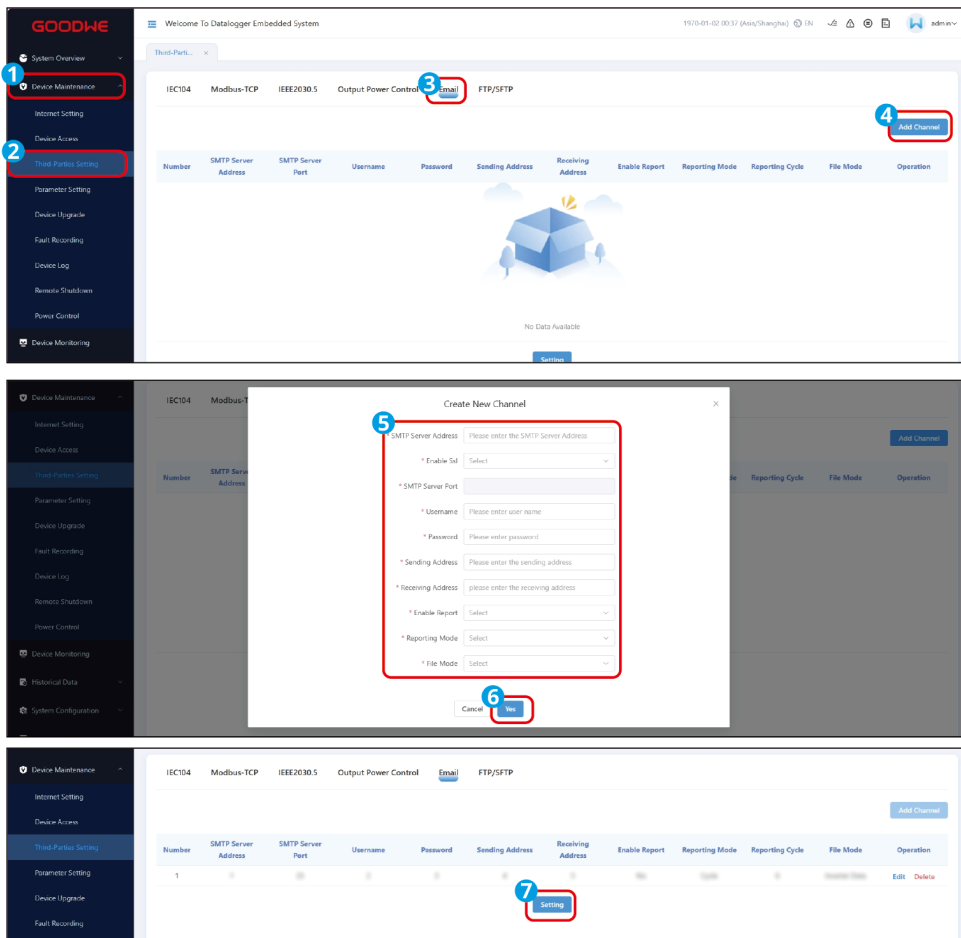
7.2.8.4 Set Email Parameters

NOTICE

- The data logger supports sending emails to users to inform them of the current Energy Generation information, alarm information, and device status of the power station system, so that users can understand the operation of the power station system immediately.
- Currently supports 163 email, 126 email, sina email, etc.

Operation Steps

1. Go to the parameter setting interface through "Device Maintenance" > "Forwarding Configuration" > "Email".
2. Set the parameters according to actual requirements.



EZU30CON0047

Parameter Name	Description
SMTP server address	Set to the domain name or IP address of the SMTP server.
Enable Function for SSL	Set the Enable Function for SSL encryption.
SMTP server port	Set to the port number of the email sending server.
Username	Set to the username for logging in to the SMTP server.
Password	Set to the password for logging in to the SMTP server.

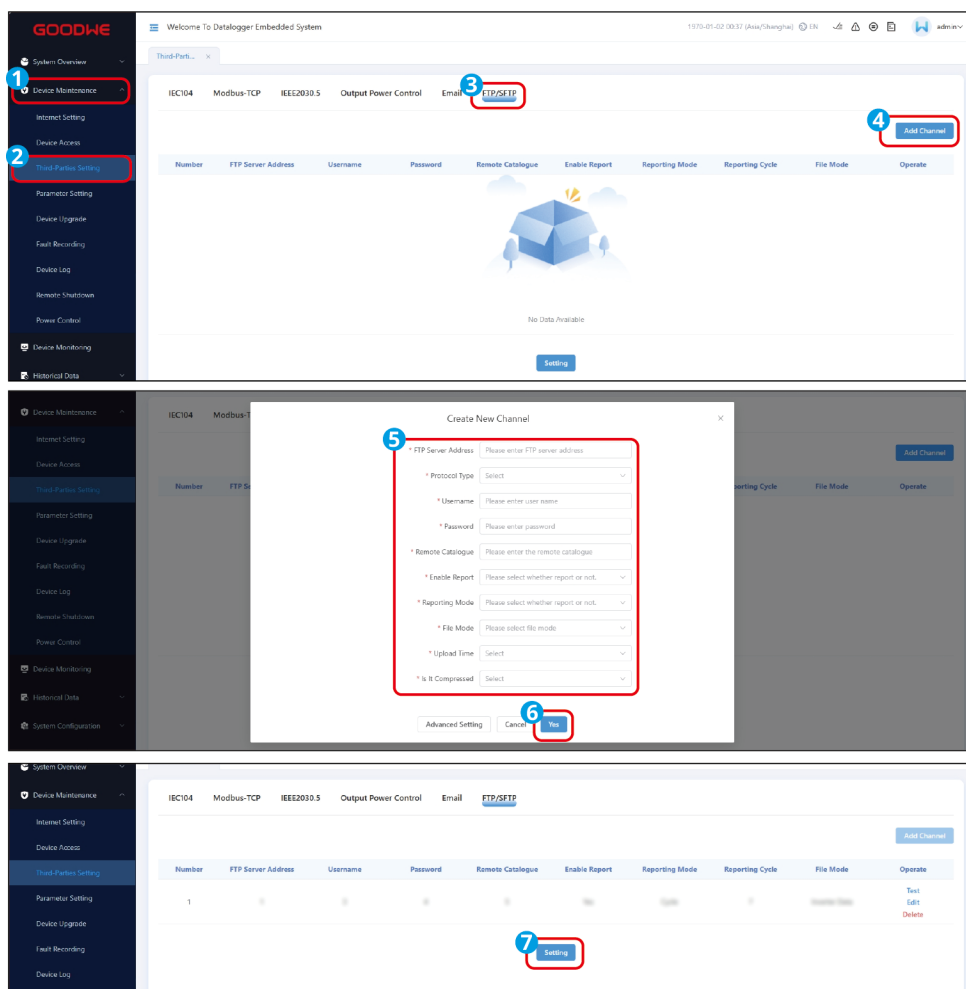
Parameter Name	Description
Sender address	Set the email address for sending emails.
Recipient address	Set the email address for receiving emails.
Whether to report	Set whether to send emails.
Reporting mode	• Set the email reporting mode. Currently supported: periodic or scheduled. • When the reporting mode is set to periodic, set the interval for periodic reporting. • When the reporting mode is set to scheduled, set the time for scheduled reporting.
File mode	Set the device data included in sent emails. Currently supported: inverter data.

7.2.8.5 Set FTP/SFTP Parameters

The FTP/SFTP function is mainly used to connect to third-party network management systems. The data logger can report the configuration information and operating data of the managed power station system through FTP/SFTP. A third-party network management system only needs to perform the corresponding adaptation to access the data logger.

Operation Steps

1. Go to the parameter settings page via "Device Maintenance" > "Forwarding Configuration" > "FTP/SFTP".
2. Set the parameters according to actual requirements.



EZU30CON0046

Parameter Name	Description
FTP server address	Set to the domain name or IP address of the FTP server.
Protocol Type	Set to a plaintext or non-plaintext protocol. Supported: FTP/SFTP.
Username	Set to the username for logging in to the FTP server.
Password	Set to the password for logging in to the FTP server.
Remote directory	Under the default directory for data upload (the default directory is specified by the FTP server), create a subdirectory with the same name.

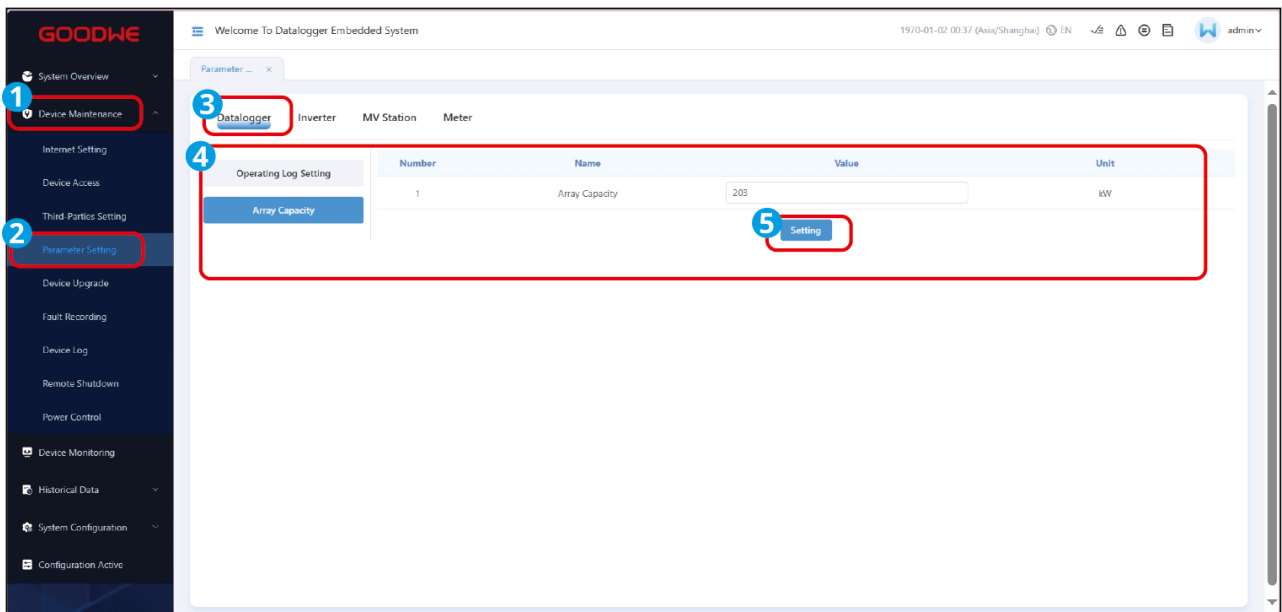
Parameter Name	Description
Whether to report	Set whether to allow data reporting.
Reporting mode	• Set the data reporting mode. Currently supported: periodic or scheduled. • When the reporting mode is set to periodic, set the interval for periodic reporting. • When the reporting mode is set to scheduled, set the time for scheduled reporting.
File mode	Set the data type for file reporting. Currently supported: inverter data.

7.2.9 Set Device Parameters

7.2.9.1 Set Data Logger Parameters

Operation Steps

1. Go to "Device Maintenance" > "Parameter Settings" > "Data Collector" to enter the parameter settings screen.
2. Set parameters according to actual requirements.



EZU30CON0023

Parameter Tab	Parameter Name	Description
Operation Log Settings	Log File Size	Set the size and number of stored log files according to actual needs.
	Number of Log Files	
PV Array Capacity	PV Array Capacity	Set according to the actual PV array capacity.
Northbound Link Protection	Link Protection Function Switch	Once enabled, if northbound communication is disconnected, the device will execute the preset scheme.
	Protected Link Node Number	Select the communication link to be protected. Currently supported: IEC104 and Modbus-TCP.
	Control Strategy Selection	After the communication link under Protection is disconnected, the strategy can be executed. Supported: No action, Shutdown, Output by preset value, QU mode, and QP mode.

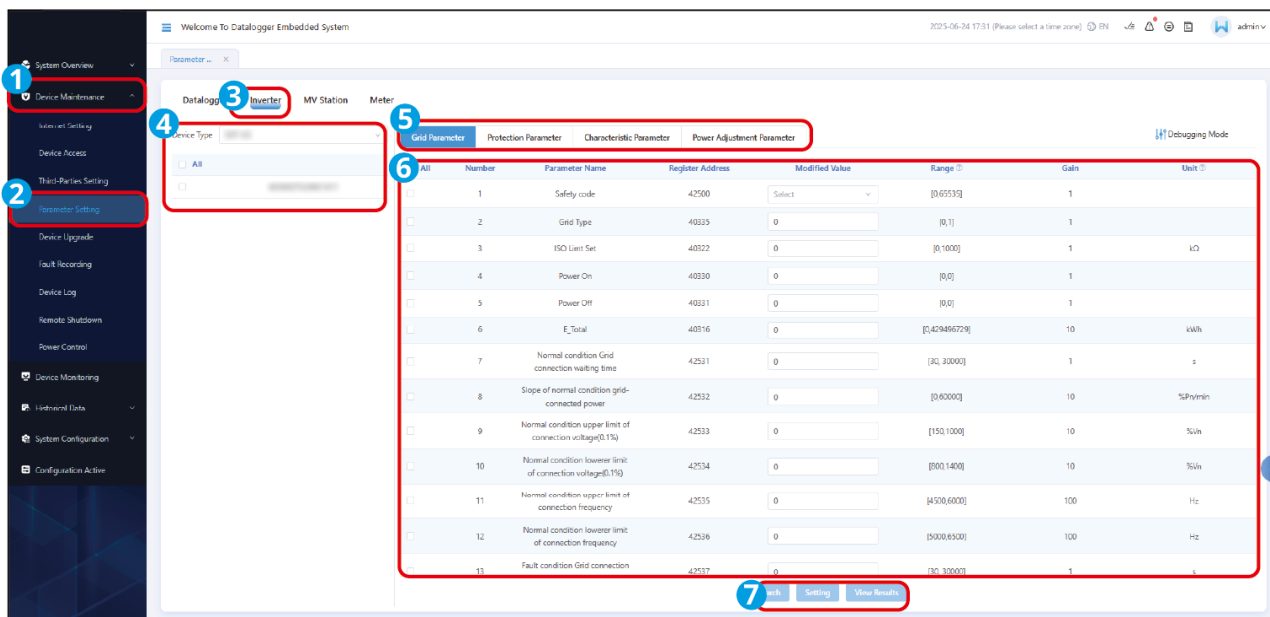
7.2.9.2 Set Inverter Parameters

NOTICE

- The parameters to be set vary depending on the inverter model. Refer to the actual interface.
- Multiple inverters can be selected, and parameter settings can be performed simultaneously for the selected inverters.
- When you need to enable or disable a function, enter 0 or 1. 0 indicates disabling a function, and 1 indicates enabling a function.
- During initial setup, first determine and set the Safety Code region. Do not change it arbitrarily after setting. After the Safety Code region is set, the inverter's grid parameters, Protection parameters, characteristic parameters, and power regulation parameters will be imported as the device's default settings. If parameters need to be modified, set them in accordance with local regulations.

Operation Steps

1. Go to Device Maintenance > Parameter Settings > Inverter to enter the parameter setting screen.
2. Select the device type and select the inverter SN to be viewed or set.
3. Select the parameters to be viewed and click Query to query the current parameters.
4. To modify parameters, select the parameters to be modified, enter the modified values, and click Modify. Ensure that the modified values are within the required range.
5. Click Set to complete the modification, and click View Results to check whether the modification was successful.



EZU30CON0022

Grid Parameters

Parameter Name	Description
Safety Code	Configure according to the country/region grid standard where the inverter is located, as well as the inverter application scenario.
Surge Protection Module Detection Switch	Enable or disable the surge protection module detection function.
Power on (Allow on-grid self-check)	Issue a power-on command to allow on-grid self-check.
Shutdown (grid-connected self-check not allowed)	Issue a shutdown command and stop the grid-connected self-check.
Output Method	According to the inverter application scenario, set whether the inverter output has anNwire. 0represents a three-phase four-wire system(3W/PE), 1represents a three-phase five-wire system(3W/N/PE)。

Parameter Name	Description
Shadow MPPT Function Switch 1	When the inverter is used in scenarios where the PV strings are significantly shaded, enabling this function will cause the inverter to perform a global MPPT scan periodically to find the maximum power point.
Active Power Fixed-Value Derating	Adjust the inverter's active power output according to a fixed value.
Active Power Percentage Derating (0.1%)	Adjust the inverter's active power output according to a percentage of the Rated Power.
Reactive Power Compensation (PF)	Set the inverter's Power Factor.
Reactive Power Compensation (Q/S)	Set the inverter's reactive power output.
Reactive Power Compensation Fixed Value	Adjust the inverter's reactive power output according to a fixed value.
Nighttime Reactive Power Function Switch	Enable or disable the nighttime reactive power function. In certain specific application scenarios, the grid company may require the inverter to perform Reactive Power Compensation at night to ensure that the Power Factor of the local grid can meet the requirements.
Nighttime Reactive Power Parameters Take Effect	When this setting is enabled, the inverter outputs reactive power according to the fixed value configured for nighttime Reactive Dispatch compensation; otherwise, the inverter follows remote dispatch commands.
Nighttime Reactive Dispatch Percentage (0.1%)	When performing nighttime Reactive Power Compensation, reactive power dispatch is performed in percentage form.

Parameter Name	Description
Nighttime Reactive Dispatch Compensation Fixed Value	When performing nighttime Reactive Power Compensation, reactive power dispatch is performed in fixed value form.

Protection Parameters

Parameter Name	Description
Overvoltage TriggerN-stage value(0.1%)	Set the gridN-level overvoltage Protection point.
Overvoltage TriggerN-stage trip time	Set the gridN-level overvoltage Protection time.
Under-voltage TriggerN-stage value(0.1%)	Set the gridN-stage under-voltage Protection point.
Under-voltage TriggerN-stage trip time	Set the gridN-stage under-voltage Protection time.
10minOver-voltage Trigger Value(0.1%)	Settings10-minute over-voltage Protection point.
10minOver-voltage Trip Time	Settings10-minute over-voltage Protection time.
Over-frequency TriggerN-stage value	Set the gridN-stage over-frequency Protection point.
Over-frequency TriggerN-stage trip time	Set the gridN-stage over-frequency Protection time.
Under-frequency TriggerN-stage value	Set the gridN-stage under-frequency Protection point.

Under-frequency TriggerN-stage trip time	Set the gridN-stage under-frequency Protection time.
Startup On-Grid Voltage Upper Limit	Some countries/regions' standards require that, when the equipment is started up and connected to the grid for the first time, if the grid voltage is higher than the set value of the Startup On-Grid voltage upper limit, the equipment is not allowed to connect to the grid.
Startup On-Grid Voltage Lower Limit	Some countries/regions' standards require that, when the equipment is started up and connected to the grid for the first time, if the grid voltage is lower than the set value of the Startup On-Grid voltage lower limit, the equipment is not allowed to connect to the grid.
Startup On-Grid Frequency Upper Limit	Some countries/regions' standards require that, when the equipment is started up and connected to the grid for the first time, if the grid frequency is higher than the set value of the Startup On-Grid frequency upper limit, the equipment is not allowed to connect to the grid.
Startup On-Grid Frequency Lower Limit	Some countries/regions' standards require that, when the equipment is started up and connected to the grid for the first time, if the grid frequency is lower than the set value of the Startup On-Grid frequency lower limit, the equipment is not allowed to connect to the grid.
Startup On-Grid Waiting Time	Set the waiting time for device startup during the first startup and grid connection.
Startup On-Grid Power Loading Rate (0.1%Pn/min)	Set the loading rate for the gradual power increase during device startup at the first startup and grid connection.
Reconnection On-Grid Voltage Upper Limit	Some countries/regions' standards require that, after the inverter shuts down under fault Protection, if the grid voltage is higher than the set value of the Reconnection On-Grid voltage upper limit, the inverter is not allowed to reconnect to the grid.

Reconnection Grid-Connection Voltage Lower Limit	Some countries/regions' standards require that after the inverter shuts down due to fault Protection, when the grid voltage is lower than the set value of the reconnection grid-connection voltage lower limit, the inverter is not allowed to reconnect to the grid.
Reconnection Grid-Connection Frequency Upper Limit	Some countries/regions' standards require that after the inverter shuts down due to fault Protection, when the grid voltage is higher than the set value of the reconnection grid-connection frequency upper limit, the inverter is not allowed to reconnect to the grid.
Reconnection Grid-Connection Frequency Lower Limit	Some countries/regions' standards require that after the inverter shuts down due to fault Protection, when the grid frequency is lower than the set value of the reconnection grid-connection frequency lower limit, the inverter is not allowed to reconnect to the grid.
Reconnection Grid-Connection Wait Time	The time interval for the inverter to reconnect to the grid after the grid voltage and frequency return to normal.
Reconnection Grid-Connection Power Ramp Rate (0.1%Pn/min)	According to the standards of certain countries or regions, when the inverter is not connected to the grid for the first time, the percentage of power increment that can be output per minute. For example: set to 10, indicating that the reconnection ramp rate is: 10%P/Srated%。
LVRT Enable Bit	Low Voltage Ride Through, i.e., when a short-term Low Voltage occurs due to grid abnormality, the inverter cannot immediately disconnect from the grid and needs to support for a period of time. Enable this function to turn on the inverter's Low Voltage Ride Through function.
LVRT Depthn	Set the voltage percentage of the characteristic point of the LVRT curve.
Hold Timen	Set the Duration of the characteristic point of the LVRT curve.

LVRT Entry Threshold	Set the threshold for triggering Low Voltage Ride Through. The threshold setting must comply with local grid code requirements.
LVRT Exit Threshold	Set the threshold for exiting Low Voltage Ride Through. The threshold setting must comply with local grid code requirements.
LVRT Positive Sequence Reactive PowerKFactor	During Low Voltage Ride Through, the inverter needs to output positive-sequence reactive power to support the grid. This parameter is used to set the amount of positive-sequence reactive power output by the inverter.
Zero Current Mode for LVRT Enable Bit	Some countries/regions' standards have requirements for the output current during Low Voltage Ride Through. This parameter needs to be enabled; after setting, the output current during Low Voltage Ride Through will be less than the Rated Current's10%。
Zero Current Mode for LVRT Entry Voltage Threshold	After enabling Zero Current Mode for LVRT, during LVRT, if the grid voltage is less than the Zero Current Mode for LVRT Entry Voltage Threshold, execute according to Zero Current Mode.
HVRT Enable Bit	High Voltage Ride Through (HVRT): when a short-term high voltage occurs due to grid abnormality, the equipment cannot immediately disconnect from the grid and needs to support for a period of time. Enable this function to turn on the inverter's High Voltage Ride Through function.
HVRT Depthn	Set the voltage percentage of the HVRT curve characteristic point.
Hold Timen	Set the Duration of the HVRT curve characteristic point.
HVRT Entry Detection Threshold	Set the threshold for triggering high voltage ride-through. The threshold setting must comply with local grid code requirements.

HVRT Exit Detection Threshold	Set the threshold for exiting high voltage ride-through. The threshold setting must comply with local grid code requirements.
HVRT Positive-Sequence Reactive PowerKFactor	During high voltage ride-through, the device needs to output positive-sequence reactive power to support the grid. This parameter is used to set the magnitude of the positive-sequence reactive power output by the device.
HVRT Zero-Current Mode Enable	Some countries/regions, standards have requirements for the output current during high voltage ride-through. This parameter must be enabled. After setting, the output current during high voltage ride-through will be less than10%。
HVRT Zero-Current Mode Entry Voltage Threshold	After the HVRT Zero-Current Mode is enabled, during HVRT, if the grid voltage is higher than the HVRT Zero-Current Mode entry voltage threshold, the Zero Current Mode is executed.
Current Distribution Mode	Set the distribution mode for reactive current and active current. 0represents reactive power priority;1represents active power priority;2represents constant current mode.
Active Power Recovery Mode After Ride-Through	During fault ride-through recovery, the active current recovery mode supports slope recovery, first-order low-pass filter recovery, no requirement, etc. 0 represents off; 1 represents slope response; 2 represents time constant; 3 represents response time
Active Power Recovery Rate After Ride-Through	During fault ride-through recovery, the rate at which active current recovers to the active current value immediately before fault ride-through.
First-Order Low-Pass Filter for Active Power Recovery After Ride-Through	After fault ride-through ends, the active current recovers with a first-order low-pass filter response characteristic.

Reactive Power Recovery Mode After Ride-Through	After fault ride-through ends, the reactive current recovery method supports slope recovery, first-order low-pass filter recovery, no requirement, etc. 0 represents off; 1 represents slope response; 2 represents time constant; 3 represents response time
Reactive Power Recovery Rate After Ride-Through	After fault ride-through ends, the reactive current recovers according to the slope value.
First-Order Low-Pass Filter for Reactive Power Recovery After Ride-Through	After fault ride-through ends, the reactive current recovers with a first-order low-pass filter response characteristic.
Frequency Ride-Through Enable Bit	After frequency ride-through is enabled, when Grid Frequency Abnormal occurs, the inverter can continue generating power within the required time.
N-stage under-frequency ride-through frequency point_UFn	Under-frequency ride-through trigger frequency point.
N-stage under-frequency ride-through time_UTn	Under-frequency ride-through duration.
N-stage over-frequency ride-through frequency point_OFn	Over-frequency ride-through trigger frequency point.
N-stage over-frequency ride-through time_OTn	Over-frequency ride-through duration

Characteristic Parameters

Parameter Name	Description
European One-Key Shutdown Enable	Enable or disable the European one-key shutdown function.

Parameter Name	Description
PIDFunction Switch	Enable or disable the Anti-PID function.
PID Recovery Function Switch	Enable or disablePIDRecovery function.
ISOThreshold Setting	To provide Protection for equipment safety, the inverter detects the insulation resistance between the input side and ground during startup self-check. If the detected value is lower than theISOthreshold setting, the inverter will not connect to the grid.
NPE Overvoltage Fault Detection Switch	Enable or disableN-PEovervoltage fault detection.
N-PEAlarm Threshold	N-PEOvervoltage Fault Threshold.
Active Power Dispatch Response Mode	• Set the Active Power Dispatch Response mode. Supports: slope mode or first-order low-pass filter mode. • 0:Disabled;1represents slope mode;2represents first-order low-pass time constant;3represents first-order low-pass response time.
Active Power Change Gradient	Set the inverter active power change speed.
Active Dispatch Low-Pass Filter Time Parameter	Set the Active Dispatch low-pass filter time parameter.
Reactive Power Dispatch Response Mode	• Set the Reactive Power Dispatch Response mode. Supports: slope mode or first-order low-pass filter mode. • 0:Disabled;1represents slope mode;2represents first-order low-pass time constant;3represents first-order low-pass response time.

Parameter Name	Description
Reactive power ramp rate	Set the inverter reactive power ramp rate.
Reactive Dispatch Low-Pass Filter Time Parameter	Set the Reactive Dispatch low-pass filter time parameter.

Power regulation parameters

Parameter Name	Description
Over-frequency start point	Some countries/regions, standards require that when the grid frequency exceeds the over-frequency point, the active power output by the inverter shall be derated.
Over-frequency power slope(Slope)	In Slope mode, when the grid frequency exceeds the over-frequency point, this is the slope of the inverter's active power derating change.
P(F) curve enable	Enable or disable over-frequency Derating.
Under-frequency start point	Standards in some countries/regions require that when the grid frequency falls below the under-frequency point, the active power output by the inverter shall be increased.
Recovery power slope	Set the power recovery slope for exiting over-frequency Derating.
Frequency hysteresis point	Frequency point corresponding to the over-frequency hysteresis function.
Silence time	Silence wait time for the over-frequency hysteresis function.
Over-frequency end point	Set the exit frequency for over-frequency Derating.
Reference power (Slope)	Slopemode, when the grid frequency exceeds the over-frequency point, the power reference value for the slope of the inverter's active power derating change.

Parameter Name	Description
Frequency hysteresis point	Frequency point corresponding to the under-frequency hysteresis function.
Recovery power slope	Set the power recovery slope for exiting under-frequency Derating.
Under-frequency end point	Set the exit frequency for under-frequency power increase.
Reference power (Slope)	Slopemode, when the grid frequency is lower than the under-frequency point, the power reference value for the slope of the inverter's output active power derating change.
Under-frequency power slope (Slope)	Slopemode, when the grid frequency is lower than the under-frequency point, the slope of the inverter's output active power derating change.
Silence time	Underfrequency hysteresis function silent waiting time.
PU curve enable	PUcurve enable switch.
Vn voltage value (0.1%)	SettingsPUcurve's corresponding voltage percentage.
Vn active power value (0.1%)	SettingsPUcurve's corresponding power percentage.
PUcurve output response mode	SettingsPUcurve output response mode. Supported: slope mode or first-order response mode.
PUcurve output power change rate	PUcurve output response mode is slope mode, set the corresponding power change slope.
PUcurve response time parameter	PUcurve output response mode is first-order response mode, set the corresponding response time.
QUcurve enable bit	QUcurve enable switch.
Vn voltage value (0.1%)	SettingsQUcurve's corresponding voltage percentage.
Vn active power value (0.1%)	SettingsQUcurve's corresponding reactive power percentage.

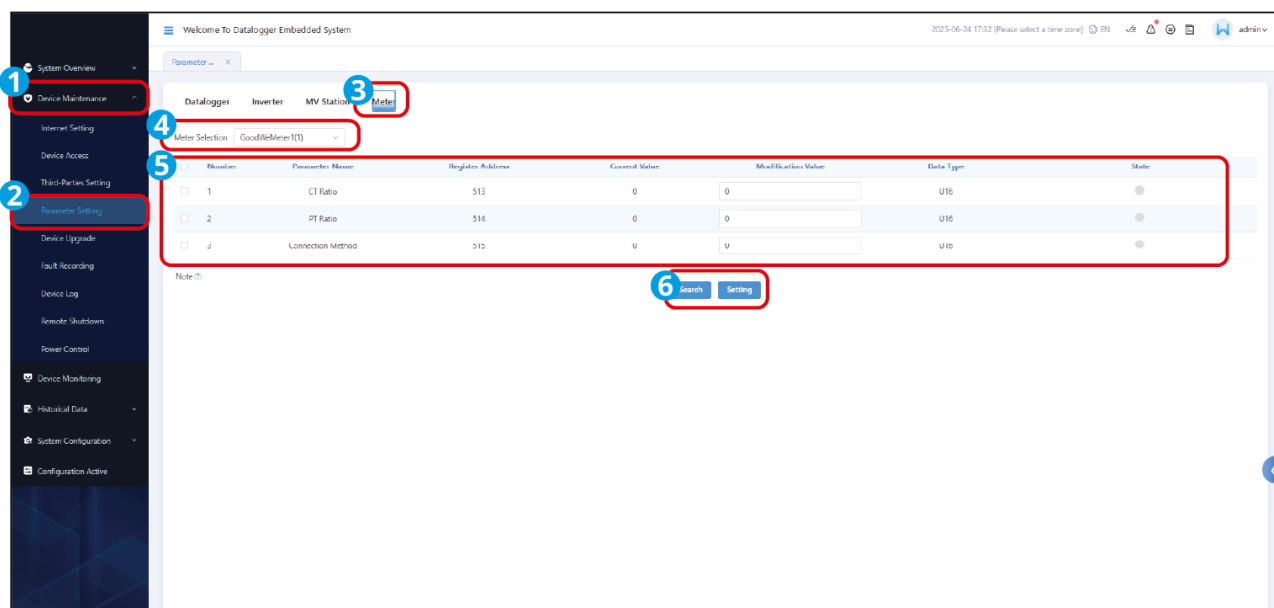
Parameter Name	Description
QUcurve response time parameter	QUcurve first-order response mode's corresponding response time.
Entry curve power(0.1%)	enterQUcurve power percentage.
Exit curve power(0.1%)	ExitQUcurve power percentage.
cos φ (P)curve enable bit	cos φ (P)curve enable switch.
npoint power(0.1%)	cos φ (P)curve's corresponding power percentage.
npointcos φ value(pf,0.001)	cos φ (P)curve's correspondingcos φ value.
cos φ (P)curve response time constant	cos φ (P)curve's corresponding response time in first-order response mode.
Entry curve voltage(0.1%)	entercos φ (P)curve.
Curve exit voltage(0.1%)	Exitcos φ (P)curve.
QPcurve enable bit	QPcurve enable switch.
QPcurvePn	QPcurve's corresponding active power percentage.
QPcurveQn	QPcurve's corresponding reactive power percentage.
QPcurve output response time constant	QPcurve's corresponding response time in first-order response mode.

7.2.9.3 Set Meter Parameters

Operation Steps

1. Go to "Device Maintenance" > "Parameter Settings" > "Meter" to enter the parameter settings screen.
2. Select the meter to view or set.

3. Select the parameters to view or set, and click "Query" to query the current values of the selected parameters. To modify, enter the new value and click "Set".



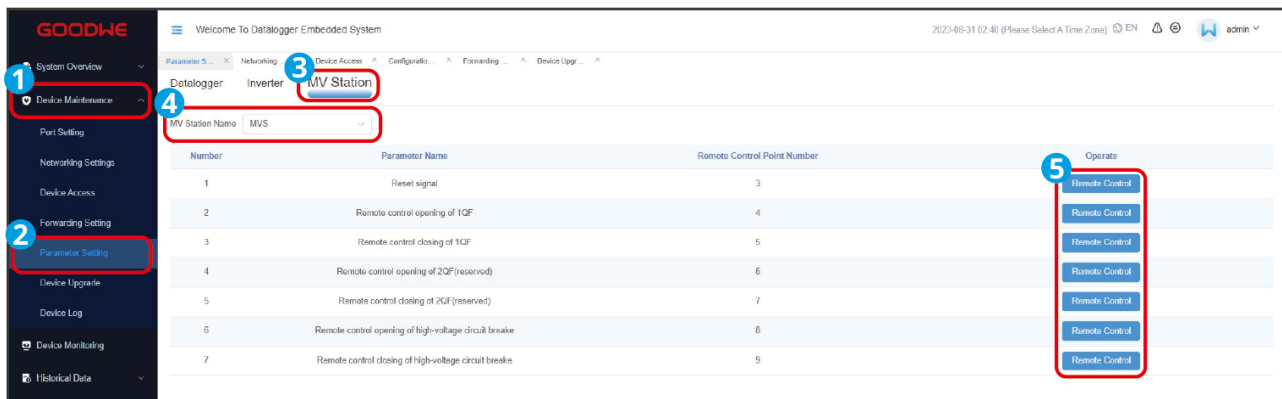
EZU30CON0019

No.	Parameter Name	Description
1	CT Ratio	Set the ratio of the CT primary-side current to the secondary-side current.
2	PT Ratio	Set the ratio of the PT primary voltage to the secondary voltage.
3	Wiring Mode	Set the meter connection method according to actual conditions.

7.2.9.4 Set Box-Type Transformer Parameters

NOTICE

- Before setting box-type transformer parameters, ensure that the box-type transformer communication status is normal.
- Box-type transformer control operations must be performed by professionals. Do not change them without authorization.



EZU30CON0086

7.2.10 Set Remote Shutdown Parameters

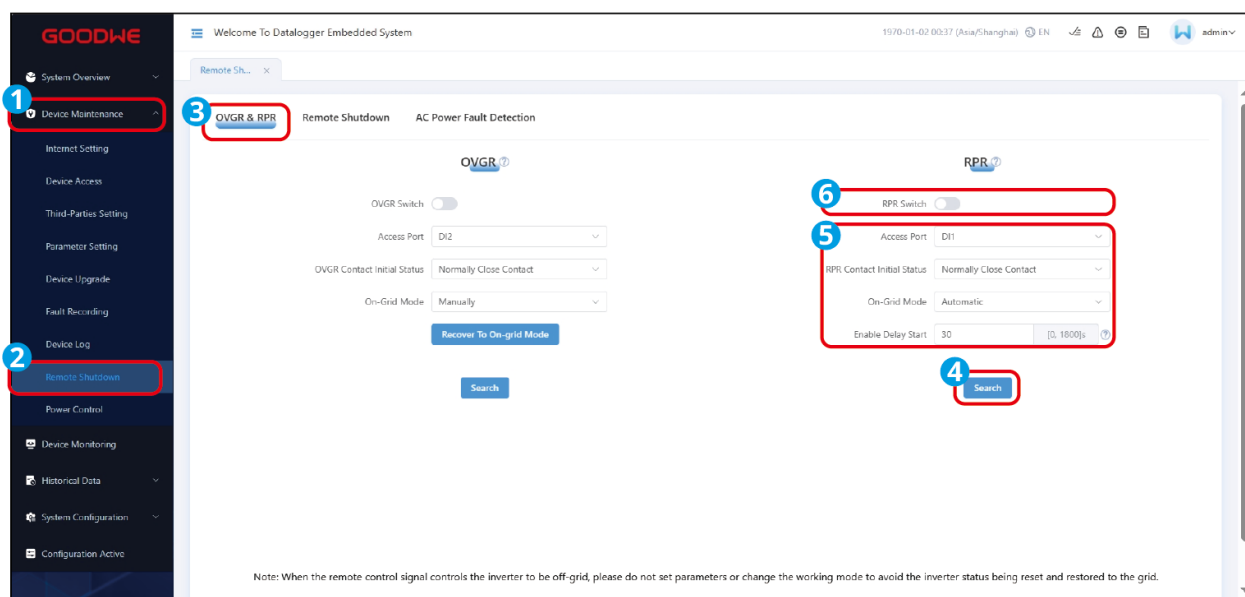
7.2.10.1 Set OVGR&RPR Parameters

7.2.10.1.1 Set OVGR Parameters

In accordance with requirements in Japan and other regions, connect the OVGR device to any DI port of the data logger to implement remote shutdown control of the inverter.

Operation Steps

1. Go to the parameter settings screen via "Device Maintenance" > "Remote Shutdown" > "OVGR&RPR".
2. Click "Query" to query the current OVGR Status.
3. Click "Access Port", and based on the actual wiring, select the port connected to the data logger from the drop-down list.
4. According to power company and electrical requirements, select "OVGR Initial Contact State" and "Grid Connection Mode". OVGR Initial Contact State defaults to Normally Closed; Grid Connection Mode defaults to Manual.
5. Turn on the "OVGR Function Switch".
6. Click "Query" again to query the current OVGR Status and confirm that the modification has taken effect.



EZU30CON0009

Parameter Name	Description
OVGR Function Switch	Enable or disable the OVGR function.
Access Port	Set according to the port actually connected to the data collector. Supported: DI1, DI2, DI3, DI4.
OVGR Initial Contact State	Set the OVGR Initial Contact State. Supports Normally Closed and Normally Open.
Grid-connected Mode	When the inverter starts again after the remote shutdown function is triggered, restore grid connection manually or automatically.
Startup Delay	Configurable when Grid Connection Mode is set to Automatic. After OVGR returns to the state set for the initial contact, the inverter automatically connects to the grid after a delay.

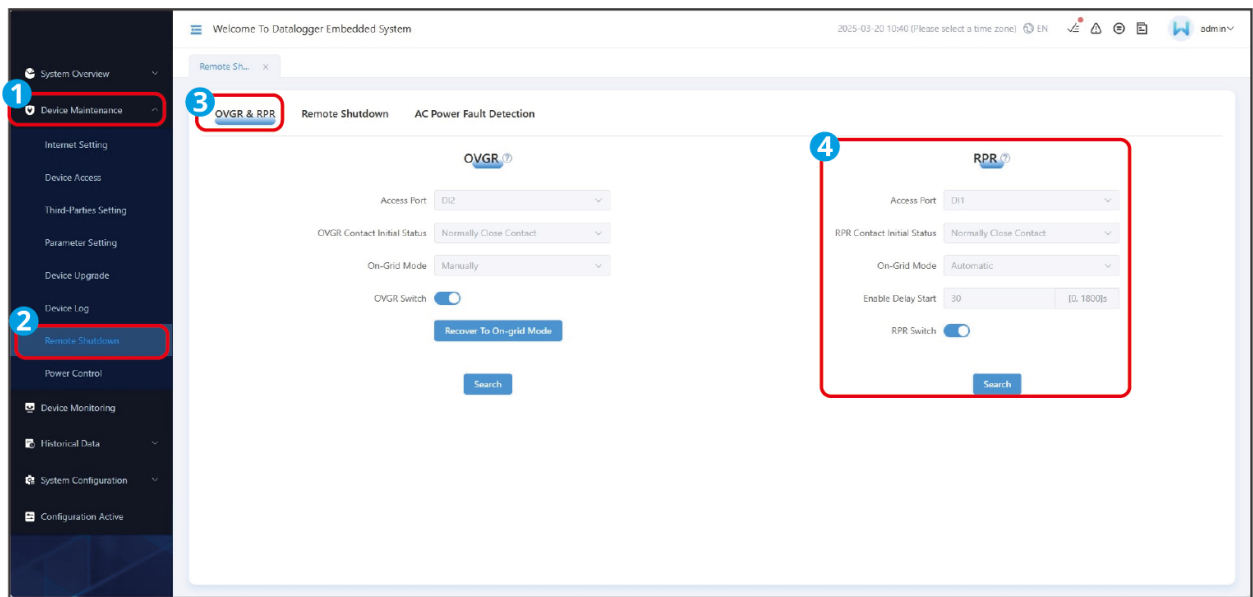
Parameter Name	Description
Restore Grid Connection	- When Grid Connection Mode is set to Manual, if the grid connection state needs to be restored after the inverter disconnects from the grid again, click the Restore Grid Connection button. - When Grid Connection Mode is set to Automatic, after OVGR returns to the state set for the initial contact, the inverter automatically connects to the grid. - When manually restoring grid connection, confirm that the fault has been cleared; otherwise, grid connection cannot be successfully restored.

7.2.10.1.2 Set RPR Parameters

In accordance with requirements in Japan and other regions, connect the RPR device to any DI port of the data logger to implement remote shutdown control of the inverter.

Operation Steps

1. Go to the parameter settings screen via "Device Maintenance" > "Remote Shutdown" > "OVGR&RPR".
2. Click "Query" to query the current RPR Status.
3. Click "Access Port", and based on the actual wiring, select the port connected to the data logger from the drop-down list.
4. According to power company and electrical requirements, select "RPR Initial Contact State" and "Grid Connection Mode". RPR Initial Contact State defaults to Normally Closed; Grid Connection Mode defaults to Manual.
5. Turn on the "RPR Function Switch".
6. Click "Query" again to query the current RPR Status and confirm that the modification has taken effect.



EZU30CON0098

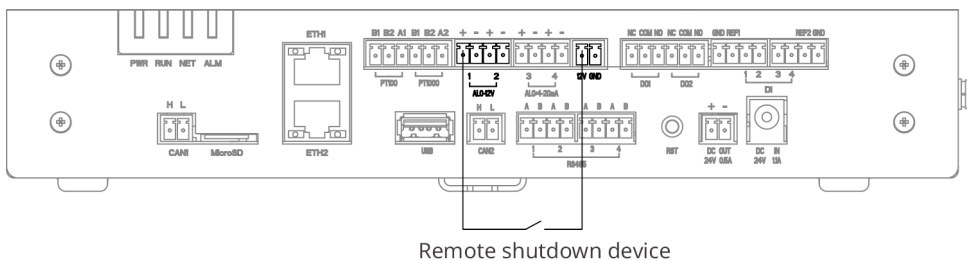
Parameter Name	Description
RPR Function Switch	Enable or disable the RPR function.
Access Port	Set according to the port actually connected to the data collector. Supported: DI1, DI2, DI3, DI4.
RPR Initial Contact State	Set the RPR initial contact state. Supports Normally Closed (NC) and Normally Open (NO).
Grid-connected Mode	When the inverter starts again after the remote shutdown function is triggered, restore grid connection manually or automatically.
Startup Delay	Configurable when the grid connection mode is set to Auto. After the RPR returns to the state set by the initial contact setting, the inverter automatically connects to the grid after a delay. Set according to the utility company's requirements.

Parameter Name	Description
Restore Grid Connection	- When Grid Connection Mode is set to Manual, if the grid connection state needs to be restored after the inverter disconnects from the grid again, click the Restore Grid Connection button. - When the grid connection mode is set to Auto, the RPR returns to the state set by the initial contact setting, and the inverter automatically connects to the grid. - When manually restoring grid connection, confirm that the fault has been cleared; otherwise, grid connection cannot be successfully restored.

7.2.10.2 Set One-Click Shutdown Parameters

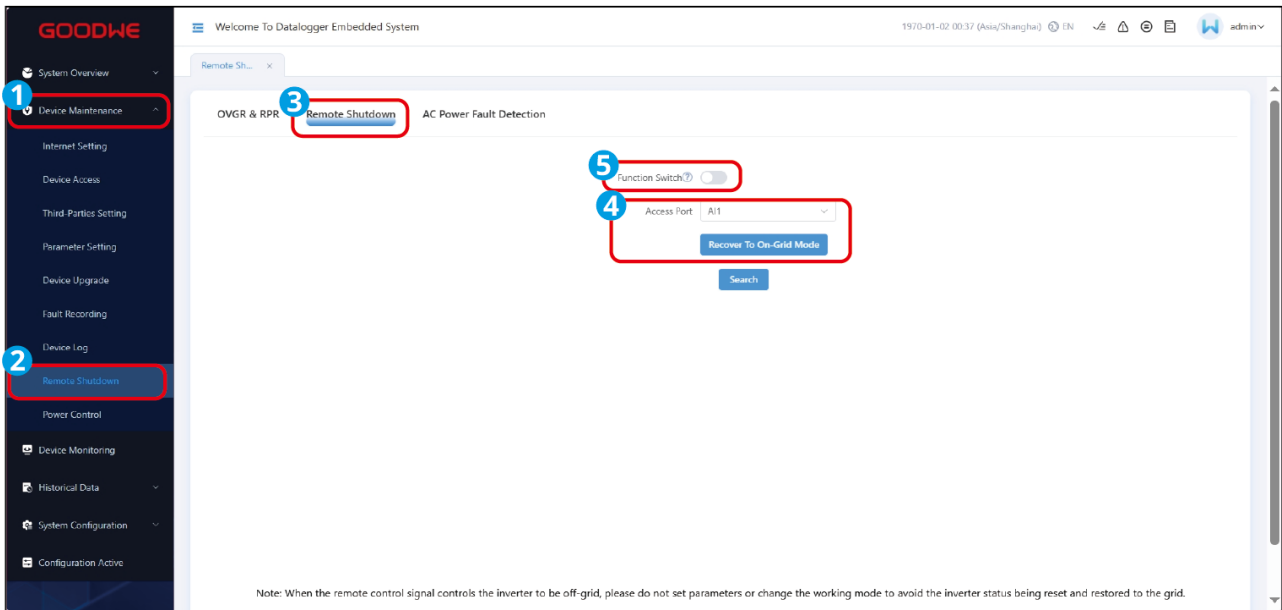
According to the requirements of certain countries or regions, if the Rapid Shutdown function is required, connect the Protection device to the AI1+ or AI2+ port and the 12V power output port of the control box.

When applying the NS Protection Function for Germany, short-circuit the NS Protection Function port on the inverter side; otherwise, this function will not take effect.



Operation Steps

1. Go to "Device Maintenance" > "Remote Shutdown" > "Rapid Shutdown" to enter the parameter setting screen.
2. Set the Rapid Shutdown access port and port status according to actual requirements.



EZU30CON0044

Parameter Name	Description
Function Switch	Enable or disable the Rapid Shutdown function.
Access Port	Set according to the port actually connected to the control box. Supported: AI1 or AI2.
Restore Grid Connection	After the inverter is shut down, if you need to start it and restore the grid-connected state, click the Restore Grid Connection button.

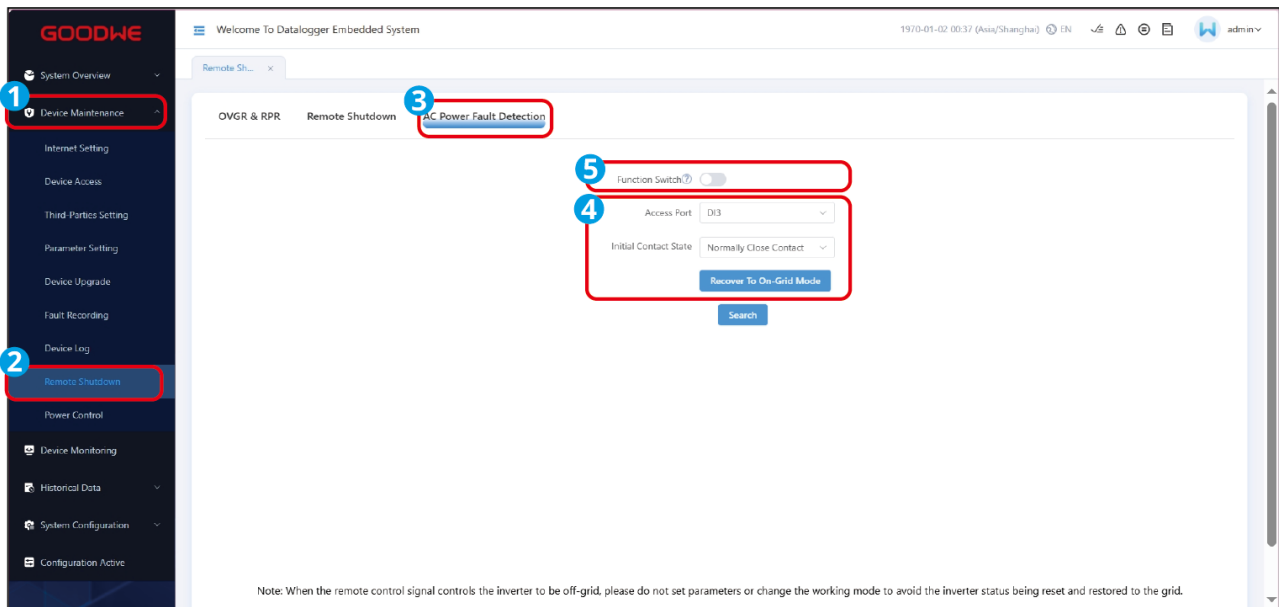
7.2.10.3 Set AC Fault Detection Parameters

According to the requirements of Japan and other regions, when the AC power at the grid-connection point is abnormal, the inverter is prohibited from connecting to the grid. Connect an external AC fault detection device to any DI port of the control box to implement AC power abnormality detection at the grid-connection point.

Operation Steps

1. Go to "Device Maintenance" > "Remote Shutdown" > "AC Fault Detection" to enter the parameter setting screen.
2. Set the AC Fault Detection access port and port status according to actual

requirements.



EZU30CON0015

Parameter Name	Description
Function Switch	Enable or disable the AC Fault Detection function.
Access Port	Set according to the port actually connected to the data collector. Supported: DI1, DI2, DI3, DI4.
Initial Contact State	Set the initial contact state of the port. Supported: Normally Closed, Normally Open.
Restore Grid Connection	After the inverter is disconnected from the grid, if you need to start it and restore the grid-connected state, click the Restore Grid Connection button.

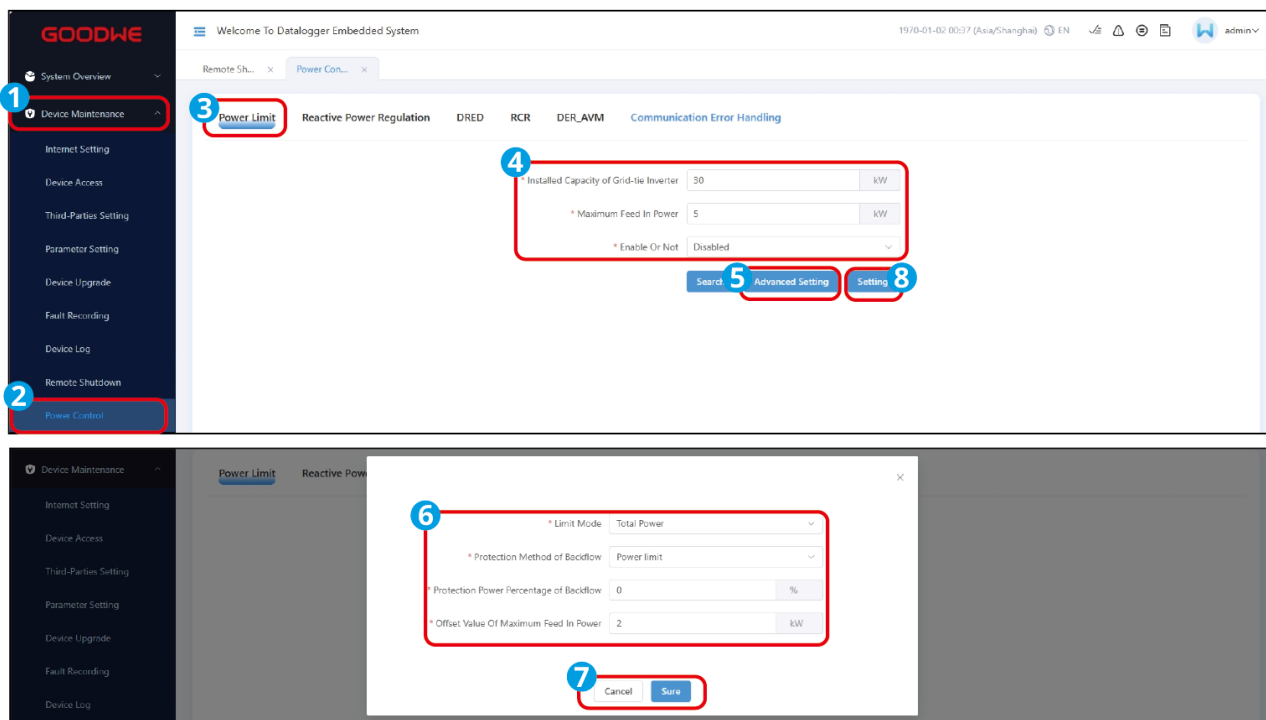
7.2.11 Set Power Regulation Parameters

7.2.11.1 Set Power Limit Parameters

When all loads in the PV system cannot consume the energy generated by the system, the surplus energy will be fed into the grid. By setting the grid-connected power limit parameters, the Energy Generation fed into the grid can be controlled.

Operation Steps

1. Go to the networking screen via "Device Maintenance">"Power Adjustment">"Power Limitation" to enter the parameter settings screen.
2. In the "Grid-Connected Inverter Installed Capacity" input box, enter the sum of the Rated Power of all inverters.
3. In the "Maximum Feed-in Grid Power" input box, enter the maximum power flowing to the grid. For scenarios of complete self-consumption and using RPR, set it to 0.
4. Click "Start Control" to enable the power limit function.
5. Click "Advanced Settings".
6. On the Advanced Settings screen, click "Power Limited Type", and in the drop-down box select the method for controlling the device output power according to actual conditions.
7. Click "Reverse Current Protection Handling Method". In the drop-down box, you can select the Protection method of the inverter when reverse current occurs. If RPR fails and cannot trip, the inverter will also perform Protection within a certain period of time. If "Power Limit" is selected, the power percentage for reverse current Protection handling can be further set.
8. For users with frequent load power consumption fluctuations or a large fluctuation range, an offset value can be set to increase the accuracy of Power Limit. In the "Maximum Feed-in Grid Power Offset" input box, enter the offset value to be adjusted. Example: Set to "-0.2" kW, then it will actively purchase 0.2 kW of electricity from the grid.



EZU30CON0042

Parameter Name	Description
Grid-Connected Inverter Installed Capacity	Total rated capacity of the grid-connected inverters in the system.
Maximum Feed-in Grid Power	According to the requirements of certain countries or regions, set the Max. Power that the device can actually feed into the grid.
Start Control	Enable or disable the power-limited grid connection function.
Power Limited Type	Select the method for controlling the device output power according to actual conditions. • Total Power: Control the total power at the grid connection point so that it does not exceed the output power limit value. • Single-Phase Power: Control the power of each phase at the grid connection point so that none exceeds the output power limit value.

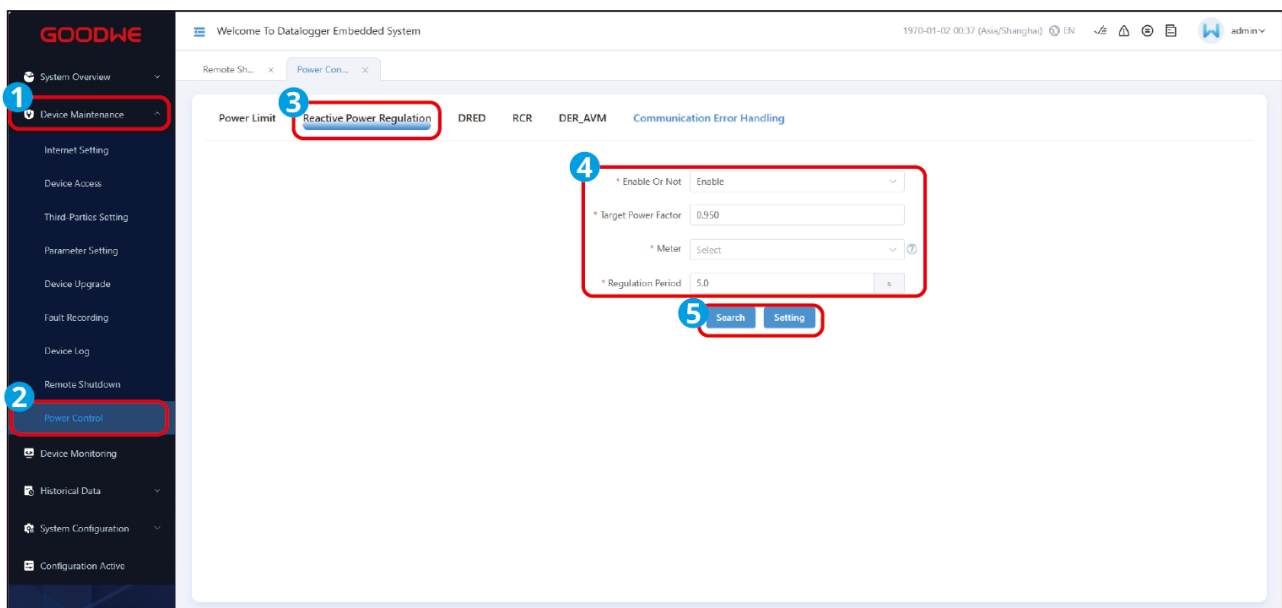
Parameter Name	Description
Reverse Current Protection Handling Method	When reverse current occurs in the system for longer than the maximum Protection time(default5s), the following Protection measures can be taken: • Power Limit: The device continues to operate at a percentage of its Rated Power. • The device disconnects from the grid.
Reverse Current Protection Handling Power Percentage	The device continues to operate at a percentage of its Rated Power.
Maximum Feed-in Grid Power Offset	• Set the adjustable range for the Max. Power that the device can actually feed into the grid. • Max. Power Delivered to Grid = Maximum Feed-in Grid Power + Maximum Feed-in Grid Power Offset.
Meter Communication Exception Handling	Enable this function; when communication between the meter and the data logger is abnormal, Protection measures will be taken.
Meter Abnormality Handling Method	When the system experiences meter communication abnormality, the following Protection measures can be taken: • PowerLimitation: The device continues to operate at a percentage of Rated Power. • Devicedisconnects from grid。
Meter handling power percentage	The device continues to operate at a percentage of its Rated Power.

7.2.11.2 Set Reactive Power Compensation Parameters

- When a PV power plant needs to maximize benefits by adjusting the Power Factor, it can collect the power data at the grid-connection point collected by the meter and adjust the reactive power output of the PV system according to the set value to optimize the Power Factor at the gateway.
- Only applicable to scenarios where a single meter is used in a PV system.

Operation Steps

1. Go to the networking screen via "Device Maintenance">"Power Adjustment">"Reactive Power Compensation" to enter the parameter settings screen.
2. Set the parameters according to actual requirements.



EZU30CON0041

Parameter Name	Description
Start Control	Enable or disable the reactive power compensation function.
Target Power Factor	Set the Power Factor target value according to actual requirements.

Parameter Name	Description
Meter	Select the grid-side meter. The system obtains the power data of the grid-connection point based on the selected meter. Currently, only GoodWe meters are supported.
Regulation period	Set the period for detecting the Power Factor value. Generally set to 5 seconds.

7.2.11.3 Set Output Control Parameters

According to requirements in Japan and other regions, when the device needs to communicate with the power company to implement the output control function, output control parameters must be set.

Operation Steps

1. Go to the parameter setting screen via "Device Maintenance" > "Power Regulation" > "Output Control".
2. Set the output control parameters according to actual conditions.

The screenshot displays the 'Output Power Control' configuration interface. On the left sidebar, the navigation path is: System Overview > Device Maintenance (1) > Remote Shutdown > Power Control (2). The main content area shows the 'Output Power Control' tab (3) with the following settings:

- Remote Output Control Switch: ☒ Open ☐ Close
- Controlled Area: None
- Output Control Time: 5 min
- Power Plant ID: (empty field)
- Remote Output Control Server: (empty field)
- Device Remaining Power Purchase: Disable
- Pv Capacity: 0 kW
- AC Capacity Of Power Station: 0 kW

Below the settings, the status shows 'Recent Connection Status: Network Request Timed Out' and 'Recent Connection Time: 1970-01-01 00:00:00'. At the bottom, there are 'Confirm' and 'Connection server test' buttons (5).

EZU30CON0013

Parameter Name	Description
Remote Output Control Switch	Turn the output control function on or off.
Control Area	Set the output control area. Supported: None, Kyushu, Chubu, Kansai, Hokkaido, Tokyo, Shikoku, Hokuriku, Tohoku, Chugoku, etc.
Output Control Time	Set the output control time, that is, the time required for the inverter output to change from 0% to 100% or from 100% to 0%.
Plant ID	The ID assigned to the plant after connecting to the power company's server.
Remote Output Control Server	After setting the output control area, the remote output control server is automatically generated.
Device Surplus Power Purchase	Turn the surplus power purchase function on or off. When enabled, after the system's generated power meets the load demand, the surplus power can be sold to the grid.
Whether to Enable Certificate Connection to the Output Control Server	Select whether to import and enable the certificate according to actual conditions.
Panel Capacity	Set to the actual PV module capacity connected to the power station.
Plant AC Capacity	Set to the AC capacity of the power station for limited grid feed-in.

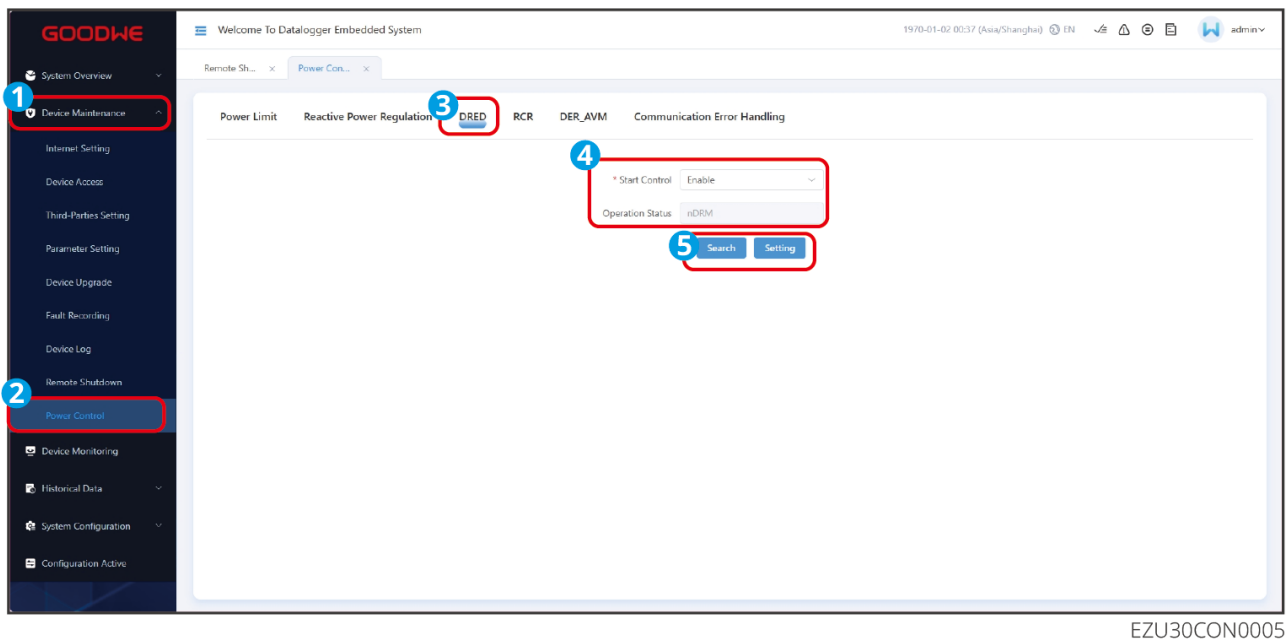
7.2.11.4 Set DRED Parameters

- According to the standard requirements of Australia and other regions, inverters must meet DRM (DEMAND RESPONSE MODES) Certification.
- To implement the DRM function, connect the DRED (Demand Response Enabling

Device) to the DI1/DI2/DI3/DI4/REF1/REF2 ports of the built-in data logger.

Operation Steps

1. Via "Device Maintenance">"Power Adjustment">"DRED " to enter the parameter settings screen.
2. Set the DRED parameters according to actual requirements.

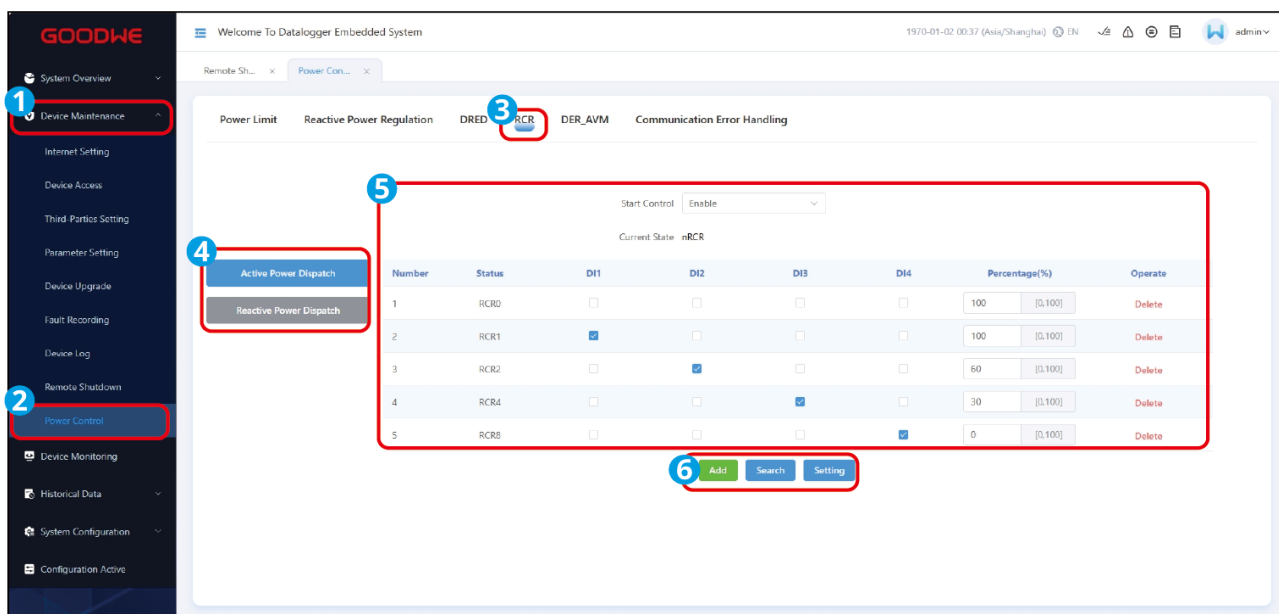


7.2.11.5 Set RCR Parameters

- According to the standard requirements of Germany and other regions, the control box must provide RCR (Ripple Control Receiver) signal control port to meet power grid dispatch requirements.
- To implement RCR function, please connect the RCR device to the DI1/DI2/DI3/DI4/REF1 port of the built-in data collector in the control box to implement active power derating, or connect to DI1/DI2/DI3/DI4/REF2 port to implement reactive power dispatch.

Operation Steps

1. Via "Device Maintenance">"Power Adjustment">"RCR " to enter the parameter settings screen.
2. According to actual requirements, set RCR parameters.



EZU30CON0010

No.	Parameter Name	Description
1	Start Control	Enable or disable RCR function.
2	Current Status	- Display current RCR function operating status. For example: RCR1(100) indicates the operating status is RCR1, the feed-in power is a percentage of Rated Power: 100%. - nRCR indicates the operating status is not effective.
3	Active Dispatch	- According to grid company requirements and RCR fixture type, check one or more DI ports, and set the corresponding percentage. The percentage refers to the percentage of the system output power in Rated Power. - Supports 16 levels of percentage value configuration. Please set according to the actual requirements of the grid company. - Do not repeatedly set DI1-DI4 status combinations, otherwise the function cannot be executed normally. - If the actual connected DI port wiring and web configuration do not match, the operating status will not take effect.

No.	Parameter Name	Description
4	Reactive Dispatch	• According to grid company requirements and RCR fixture type, check one or more DI ports, and set the corresponding PF value. • Supports 16 levels of Power Factor configuration. Please set according to the actual requirements of the grid company. • PF value range requirement: [-100, -80] or [80, 100] , [-100, -80] corresponding power factor lagging -0.99, -0.8] , [80, 100] corresponding power factor leading 0.8, 1] 。 • Do not repeatedly set DI1-DI4 status combinations, otherwise the function cannot be executed normally. • If the actual connected DI port wiring and web configuration do not match, the operating status will not take effect.

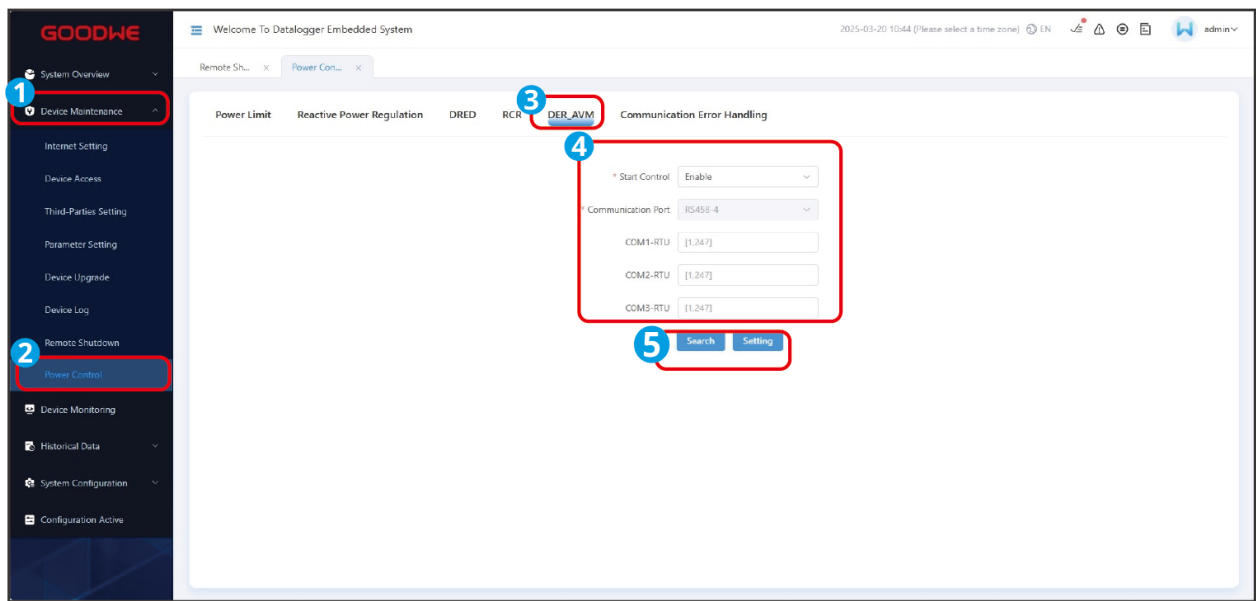
7.2.11.6 Set DER_AVM Parameters

According to the standard requirements of Korea and other regions, the inverter must provide a DER_AVM signal control port to meet power grid dispatch requirements.

To implement the DER_AVM function, connect the third-party KDN device to the RS485-4 port of the data collector.

Operation Steps

1. Via "Device Maintenance">"Power Adjustment">"DER_AVM " to enter the parameter settings screen.
2. Set the parameters according to actual requirements.



EZU30CON0004

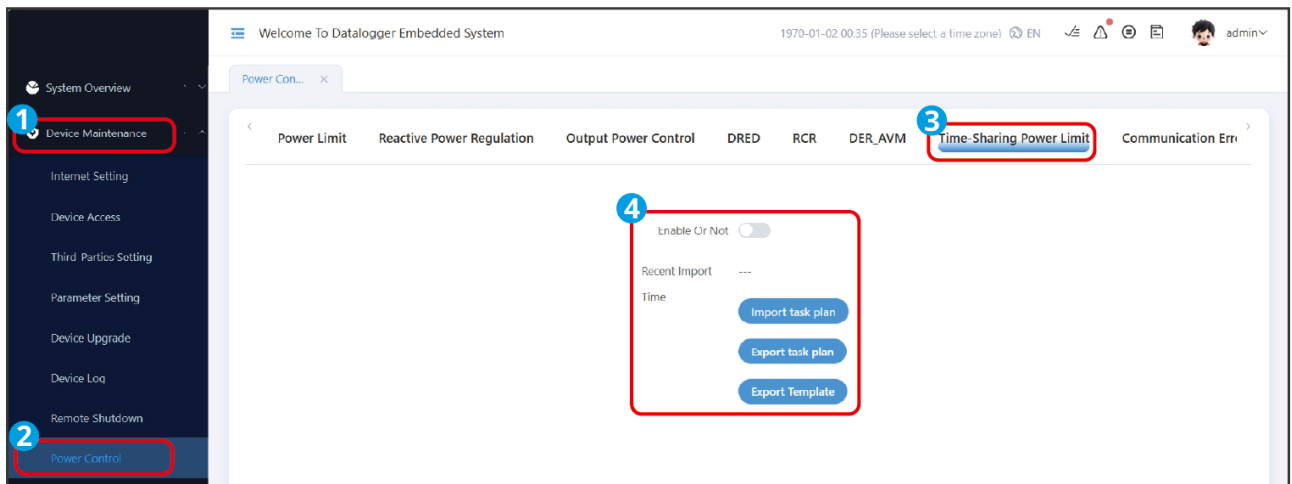
Parameter Name	Description
Start Control	Enable or disable the DER_AVM function.
Communication Interface	Port for connecting the device to the data collector; default is RS485-4.
COM1-RTU	Set the RTU communication address of RS4851/2/3 ports. The KDN device identifies the port address and issues dispatch commands to the inverters under the corresponding port.
COM2-RTU	
COM3-RTU	

7.2.11.7 Set Time-of-Use Power Limit Parameters

In regions such as Brazil, users are allowed to set different power limits in different time periods to meet grid requirements.

Operation Steps

1. Via "Device Maintenance">"Power Adjustment">"Time-of-Use Power Limit " to enter the parameter settings screen.
2. After downloading the template, configure the power limit information for different time periods according to actual requirements. After completing the template, import the schedule to complete the time-of-use power limit.



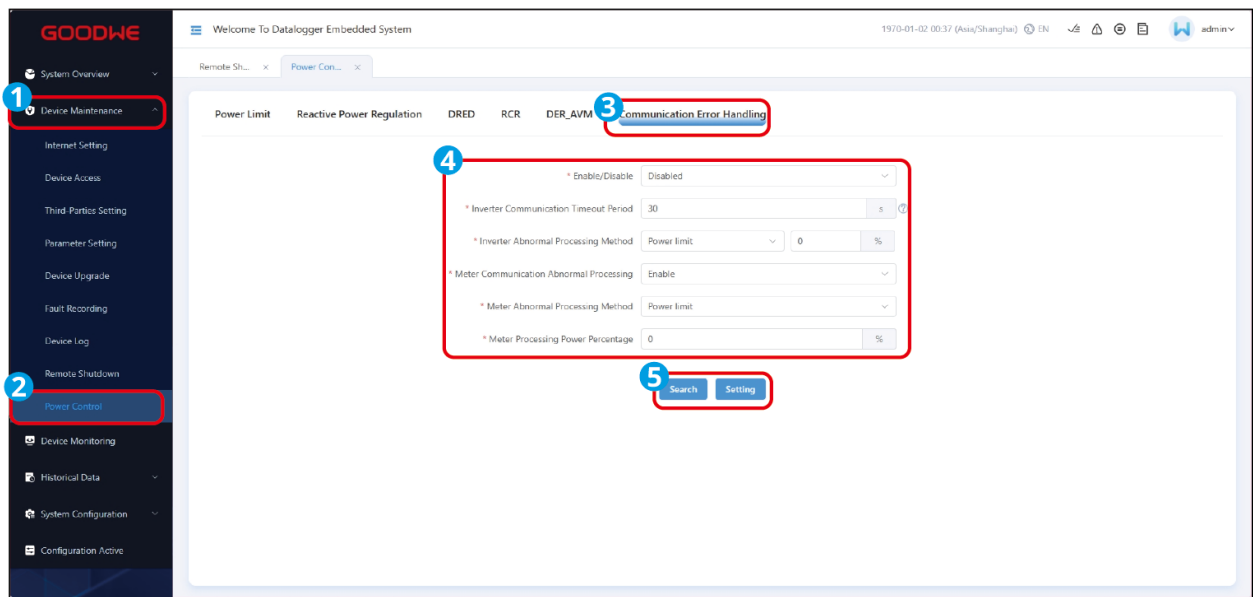
EZU30CON0099

7.2.11.8 Set Communication Abnormality Protection Parameters

When communication between the data logger and the inverter or meter is abnormal, and the abnormal duration reaches the 'Communication Abnormality Timeout', the inverter and meter will execute the corresponding exception handling strategy according to the settings, such as limiting power or disconnecting from the grid.

Operation Steps

1. Go to 'Device Maintenance' > 'Power Adjustment' > 'Communication Abnormality Configuration' to enter the parameter settings screen.
2. Set the handling method for communication abnormalities according to actual requirements.



EZU30CON0039

7.3 Commissioning the System via SEMS+ App

7.3.1 Download and Install SEMS+ App

Phone Requirements

- Phone operating system requirements: Android 7.0 and above, iOS 15.1 and above.
- The phone supports a web browser and Internet access.
- The phone supports WLAN/Bluetooth.

Download Method

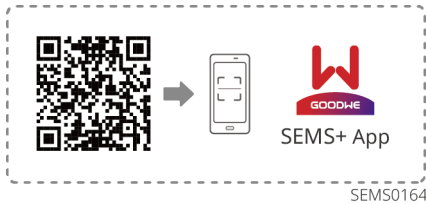
Method 1:

Search for SEMS+ in Google Play, App Store, Huawei, Honor, Xiaomi, OPPO, and vivo app stores to download and install it.



Method 2:

Scan the QR code below to download and install.



Add Desktop Widget

- When the App version is V2.5.2 or later, you can add the SEMS+ App to the phone's home screen.
- Steps to add desktop widgets vary by operating system. Please follow the actual steps.
- After the desktop widget is added, you can quickly view the power plant operating status without opening the App.

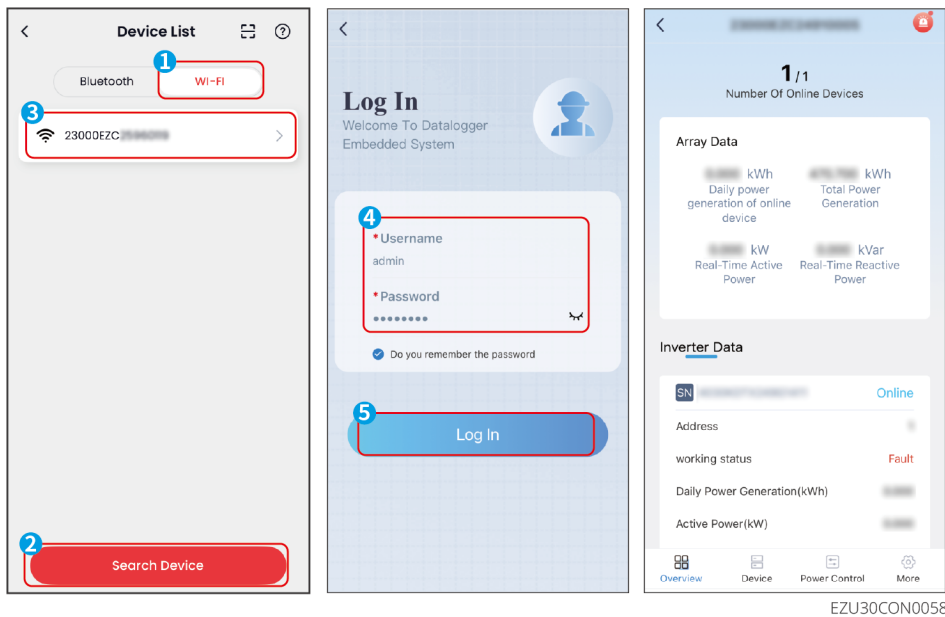
7.3.2 Log in to the App

NOTICE

- Before connecting, please confirm:
 - The mobile phone's WiFi is enabled.
 - All devices in the system are powered on and communicate normally with the data logger.
 - The data logger antenna is connected properly, and the WiFi hotspot signal is stable.
 - SEMS+ App version is V2.6.0 or later.
- To ensure account security, the same account cannot simultaneously log in to the data logger's embedded Web and the App commissioning device.

Operation Steps

1. Open the mobile phone WiFi settings, and connect to the data logger's WiFi hotspot signal. Default WiFi hotspot name: Log-***, *** is the serial number of the data logger. WiFi default password: 12345678.
2. Open SEMS+ App, and go to the "Local Access" screen. On the WiFi tab, search for devices, view the serial numbers of the found devices, and confirm the device to be connected.
3. Enter the username and password to log in to App. Initial username: admin; initial password: 123456.



EZU30CON0058

7.3.3 Device Management

7.3.3.1 Automatically Search and Add Devices

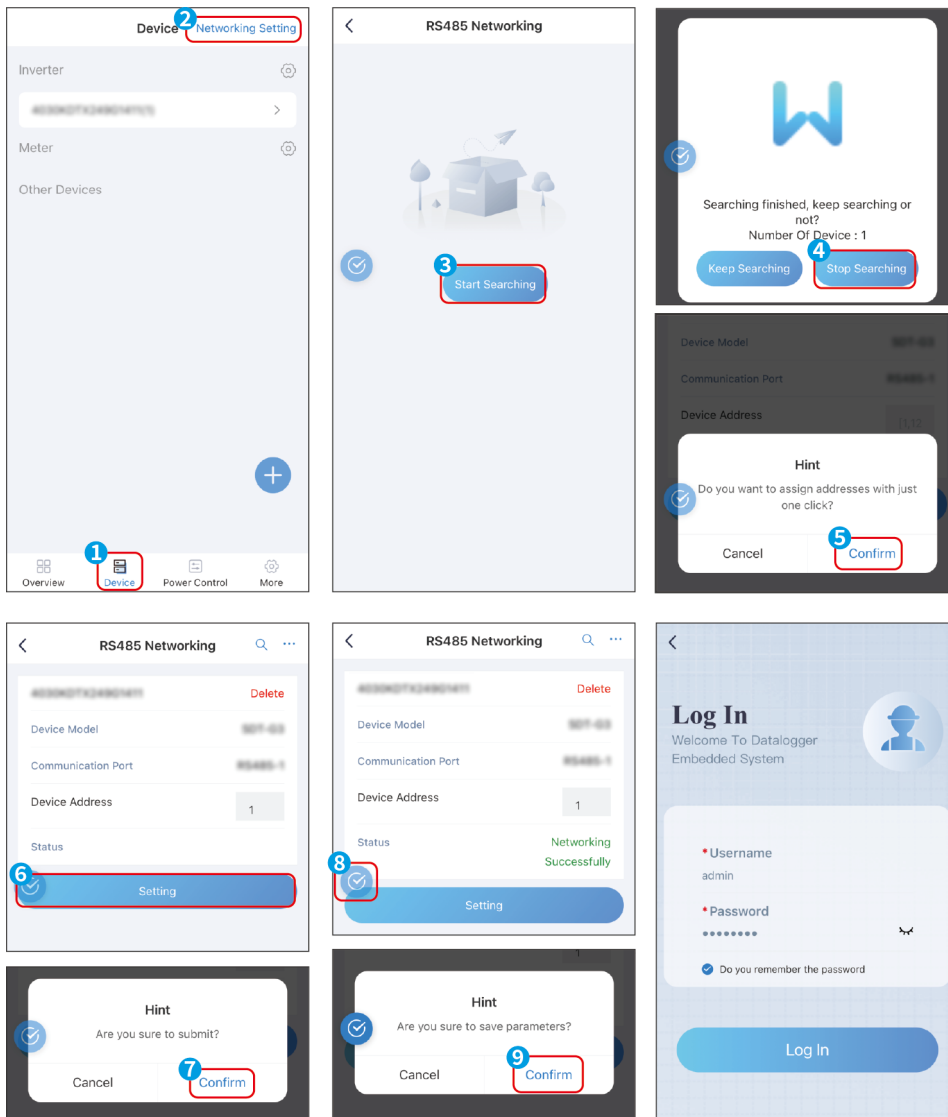
NOTICE

- Before setting up networking, confirm that the inverter's operating status and communication status are normal.
- Auto search cannot find third-party devices, such as third-party meters. If you need to add them, perform a manual addition.

Operation Steps

1. Go to the networking screen via "Device">"Networking Settings".
2. Click "Start Search". When the number of devices in the search prompt box matches the actual number in the system, click "Stop Search". If the number of devices always does not match the actual number, check whether the device RS485 wiring is normal.
3. The interface prompts "Assign addresses with one click?", and select Confirm or Cancel as required. If you click Cancel, you need to set the device terminal addresses manually. Ensure that device terminal addresses are unique.
4. On the RS485 networking screen, confirm the networked device information, and click "Settings">"Confirm" to submit the networking settings.

5. Click , and in the interface prompt box click "Confirm" to complete networking. After the configuration takes effect, the data logger will restart. Please log in again according to the interface prompts.



EZU30CON0060

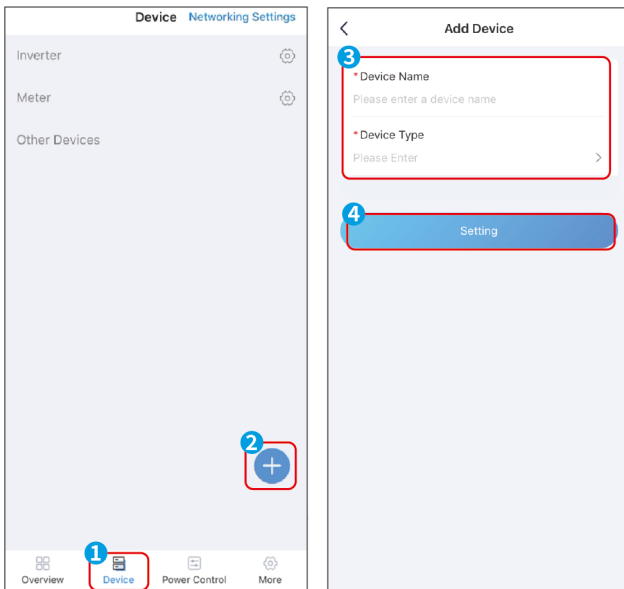
7.3.3.2 Manually Add Devices

NOTICE

- If you need to manually add a device, confirm in advance the device model, device SN, communication port to which the device is connected, and other information. Otherwise, the addition may fail.
- Click Edit or Delete to modify or delete the parameters of the added device.

Operation Steps

1. Via "Device" >  enter Add Devices screen.
2. According to actual requirements, select the device type and set device parameters. Click "Confirm" to complete adding the device.



EZU30CON0067

Add Inverter

Parameter Name	Description
Device Name	Custom device names are supported. Name the device according to actual conditions.
Device Type	Set as inverter.

Parameter Name	Description
Communication Protocol	Set according to the inverter's communication protocol. Supported: Modbus-RTU.
Communication Interface	Set according to the port through which the device is actually connected to the data logger.
Device Model	Set the actual connected inverters. Mixed inverter connections are supported. The same RS485 communication channel can connect UT and HT (225~250kW), or connect GT, HT (100~136kW), SMT (25~60kW), SMT (80kW), SMT-US, SDT-G3, or SDT-G2.
Terminal Address	- Set the inverter terminal address according to actual plant planning. If setting based on actual conditions is not required, you can choose automatic generation. - Ensure that different devices have different addresses.

Add Meter

Parameter Name	Description
Device Name	Custom device names are supported. Name the device according to actual conditions.
Device Type	Set as a meter.
Communication Protocol	Set according to the meter's communication protocol. Supported: Modbus-RTU.
Communication Interface	Set according to the port through which the device is actually connected to the data logger.

Parameter Name	Description
Device Subtype	- This option is displayed when using a meter with Modbus-RTU protocol. Set according to the actually connected meter model. - Supported: GoodWe meter (GM330), Schneider-IEM3255, Janitza-UMG604, PRISMA-310A Lite/310A*, MIKRO-DPM680, Mitsubishi-ME110SS, IRA 2.0-Bf, Acrel-DTSD1352-CT, etc.
Meter Usage	- Select according to the meter's actual usage. Supported: Grid-side meter or Grid connection point meter. - Grid-side meter: used for Power Limit, supports GoodWe meter (GM330). - Grid connection point meter: used for metering, supports Schneider-IEM3255. - When multiple meters are connected in the system for Power Limit, set all Power Limit meters as grid-side meters.
Terminal Address	- The device address of the meter, set according to actual plant planning. If setting based on actual conditions is not required, you can choose automatic generation. - Do not set the meter address and inverter address to the same address.
Access Point Table	Select the access point table according to actual conditions.

Add Other Devices

Parameter Name	Description
Device Name	Custom device names are supported. Name the device according to actual conditions.
Device Type	Set as other device.

Parameter Name	Description
Communication Protocol	Set according to the device's Communication Protocols. Supported: Modbus-RTU, Modbus-TCP, GW-XPB, and 104 master.
When the communication protocol is set to Modbus-RTU, set the following parameters according to actual requirements:	
Communication Interface	Set according to the port on the data logger that the device is actually connected to. Currently supports RS485-1, RS485-2, RS485-3, RS485-4.
Device Model	- Set the device subtype. Supported: Environmental Monitoring Device, Box Transformer, Other. - If you need to add an environmental monitoring device, manually click the Add Environmental Monitoring Device button, and enter the environmental monitoring device address and point table. Supported environmental monitoring device models: IMT Technology Digital Module Temperature Sensors Tm-RS485-MB / Tm-RS485-MB-A, Hukseflux SRO5-D1A3 & SRO5-D2.
Box Transformer Subtype	When the device subtype is selected as Box Transformer, set the Box Transformer subtype to Conventional or Split-type.
Terminal Address	Device address, set according to actual plant planning. Ensure that different devices have different addresses.
Protocol Type	Select the protocol type used according to the device.
Access Point Table	Import the access point table of the connected device.
IEC104 Forwarding	Select according to the imported device forwarding point table.
Modbus-TCP Forwarding	Select according to the imported device forwarding point table.

Parameter Name	Description
When Communication Protocols is set to Modbus-TCP, set the following parameters according to actual requirements:	
Associated Device	When Communication Protocols is selected as Modbus-TCP, set Associated Device to General.
Communication Mode	Set according to the communication mode of the device. UDP, TCPClient, and TCPServer are supported.
Local IP Address	Set to the IP address corresponding to the network port on the data logger to which the other added devices are connected.
Local Port	- Set to the port number of the data logger. The default value is "502". - For GoodWe devices, set the default value; for third-party devices, configure according to actual settings.
Peer IP Address	Set to the IP address of the other added device.
Peer Port	- Set to the port number of the other added device. If it is not a fixed port number, enter "0". - For GoodWe devices, set the default value; for third-party devices, configure according to actual settings.
Terminal Address	- Device Address. Set it according to the actual plant planning. If setting according to actual conditions is not required, Auto Generate can be selected. - Ensure that different devices have different addresses.
When the communication protocol is set to GW-XPB, set the following parameters according to actual requirements:	
Communication Interface	Set according to the actual port on the EzLogger to which the device is connected.

Parameter Name	Description
Terminal Address	Device Address. Set it according to the actual plant planning. If setting according to actual conditions is not required, Auto Generate can be selected.
When Communication Protocols is set to 104master, set the following parameters according to actual requirements:	
Local IP Address	Set to the IP address corresponding to the Ethernet port of the data logger.
Local Port	It is recommended to set it to 0.
Peer IP Address	Set to the IP address of the peer device collected through the 104master protocol.
Peer Port	Set to the port number of the peer device collected through the 104master protocol.
Opposite Side Common Address	Set to the 104 common address of the peer device collected through the 104master protocol.
Originator Address	Set the IEC 60870-5-104 source address of the data logger.
Access Point Table	Set the IEC 60870-5-104 protocol point table used by the peer device.
IEC104 Forwarding	The IEC 60870-5-104 address mapping table used by the data logger to forward peer device data.
Modbus TCP Forwarding	The Modbus TCP address mapping table used by the data logger to forward peer device data.
Box-type Transformer Power Mapping	Power data mapping table of the peer device.

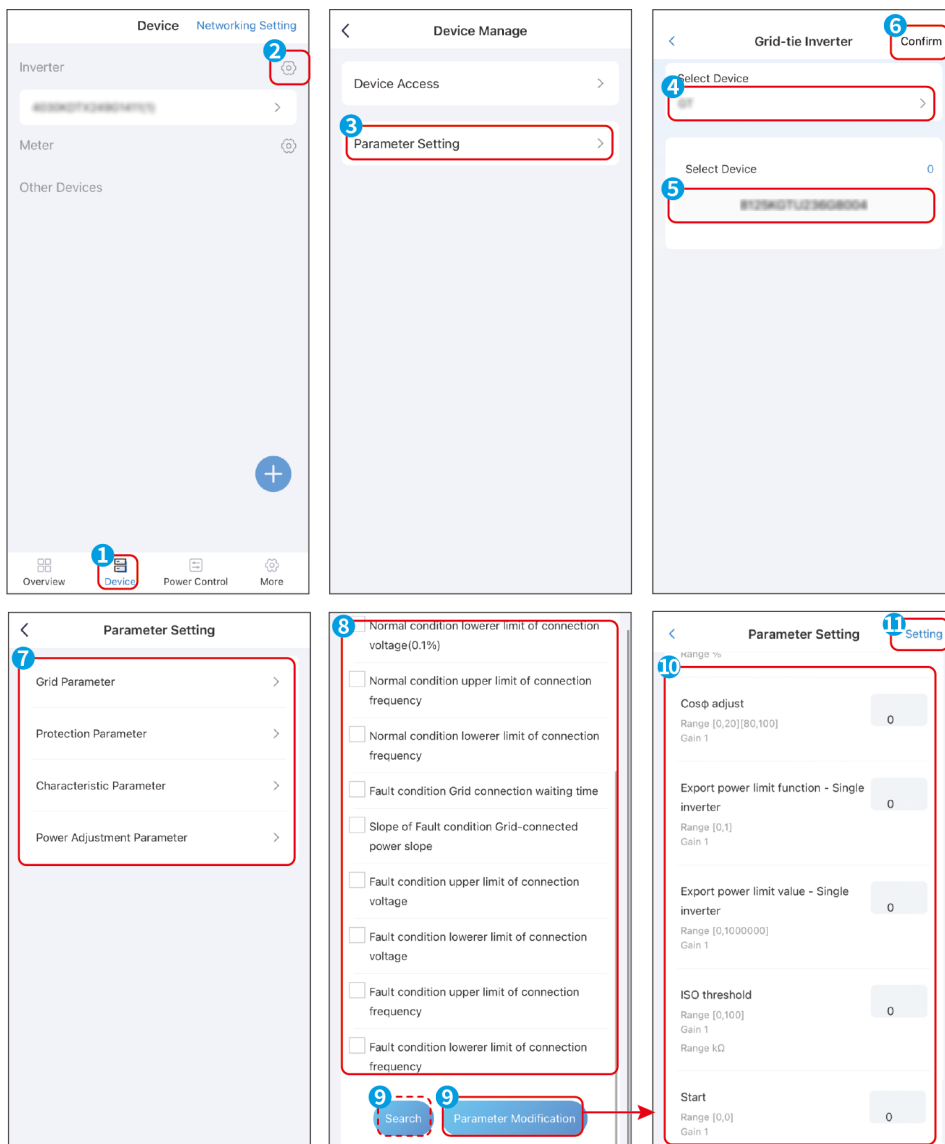
7.3.4 Set Inverter Parameters

NOTICE

- The parameters to be set vary depending on the inverter model. Refer to the actual interface.
- Multiple inverters can be selected, and parameter settings can be performed simultaneously for the selected inverters.
- When you need to enable or disable a function, enter 0 or 1. 0 indicates disabling a function, and 1 indicates enabling a function.
- During initial setup, first determine and set the Safety Code region. Do not change it arbitrarily after setting. After the Safety Code region is set, the inverter's grid parameters, Protection parameters, characteristic parameters, and power regulation parameters will be imported as the device's default settings. If parameters need to be modified, set them in accordance with local regulations.

Operation Steps

1. Go to the networking screen via inverter "Device">>"Parameter Settings" to enter the parameter settings screen.
2. Select device type and inverter SN, click "Confirm".
3. Select one or more parameters to view, and click "Query" to query the current values of the selected parameters.
4. If you need to modify parameters, select one or more parameters, click "Parameter Modification" to enter the parameter settings screen. Enter the modified value and click "Settings".



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Grid Parameters

Parameter Name	Description
Safety Code	Configure according to the country/region grid standard where the inverter is located, as well as the inverter application scenario.
Surge Protection Module Detection Switch	Enable or disable the surge protection module detection function.
Power on (Allow on-grid self-check)	Issue a power-on command to allow on-grid self-check.

Parameter Name	Description
Shutdown (grid-connected self-check not allowed)	Issue a shutdown command and stop the grid-connected self-check.
Output Method	According to the inverter application scenario, set whether the inverter output has anNwire. 0represents a three-phase four-wire system(3W/PE), 1represents a three-phase five-wire system(3W/N/PE)。
Shadow MPPT Function Switch 1	When the inverter is used in scenarios where the PV strings are significantly shaded, enabling this function will cause the inverter to perform a global MPPT scan periodically to find the maximum power point.
Active Power Fixed-Value Derating	Adjust the inverter's active power output according to a fixed value.
Active Power Percentage Derating (0.1%)	Adjust the inverter's active power output according to a percentage of the Rated Power.
Reactive Power Compensation (PF)	Set the inverter's Power Factor.
Reactive Power Compensation (Q/S)	Set the inverter's reactive power output.
Reactive Power Compensation Fixed Value	Adjust the inverter's reactive power output according to a fixed value.
Nighttime Reactive Power Function Switch	Enable or disable the nighttime reactive power function. In certain specific application scenarios, the grid company may require the inverter to perform Reactive Power Compensation at night to ensure that the Power Factor of the local grid can meet the requirements.

Parameter Name	Description
Nighttime Reactive Power Parameters Take Effect	When this setting is enabled, the inverter outputs reactive power according to the fixed value configured for nighttime Reactive Dispatch compensation; otherwise, the inverter follows remote dispatch commands.
Nighttime Reactive Dispatch Percentage (0.1%)	When performing nighttime Reactive Power Compensation, reactive power dispatch is performed in percentage form.
Nighttime Reactive Dispatch Compensation Fixed Value	When performing nighttime Reactive Power Compensation, reactive power dispatch is performed in fixed value form.

Protection Parameters

Parameter Name	Description
Overvoltage TriggerN-stage value(0.1%)	Set the gridN-level overvoltage Protection point.
Overvoltage TriggerN-stage trip time	Set the gridN-level overvoltage Protection time.
Under-voltage TriggerN-stage value(0.1%)	Set the gridN-stage under-voltage Protection point.
Under-voltage TriggerN-stage trip time	Set the gridN-stage under-voltage Protection time.
10minOver-voltage Trigger Value(0.1%)	Settings10-minute over-voltage Protection point.
10minOver-voltage Trip Time	Settings10-minute over-voltage Protection time.
Over-frequency TriggerN-stage value	Set the gridN-stage over-frequency Protection point.

Over-frequency TriggerN-stage trip time	Set the gridN-stage over-frequency Protection time.
Under-frequency TriggerN-stage value	Set the gridN-stage under-frequency Protection point.
Under-frequency TriggerN-stage trip time	Set the gridN-stage under-frequency Protection time.
Startup On-Grid Voltage Upper Limit	Some countries/regions' standards require that, when the equipment is started up and connected to the grid for the first time, if the grid voltage is higher than the set value of the Startup On-Grid voltage upper limit, the equipment is not allowed to connect to the grid.
Startup On-Grid Voltage Lower Limit	Some countries/regions' standards require that, when the equipment is started up and connected to the grid for the first time, if the grid voltage is lower than the set value of the Startup On-Grid voltage lower limit, the equipment is not allowed to connect to the grid.
Startup On-Grid Frequency Upper Limit	Some countries/regions' standards require that, when the equipment is started up and connected to the grid for the first time, if the grid frequency is higher than the set value of the Startup On-Grid frequency upper limit, the equipment is not allowed to connect to the grid.
Startup On-Grid Frequency Lower Limit	Some countries/regions' standards require that, when the equipment is started up and connected to the grid for the first time, if the grid frequency is lower than the set value of the Startup On-Grid frequency lower limit, the equipment is not allowed to connect to the grid.
Startup On-Grid Waiting Time	Set the waiting time for device startup during the first startup and grid connection.
Startup On-Grid Power Loading Rate (0.1%Pn/min)	Set the loading rate for the gradual power increase during device startup at the first startup and grid connection.

Reconnection On-Grid Voltage Upper Limit	Some countries/regions' standards require that, after the inverter shuts down under fault Protection, if the grid voltage is higher than the set value of the Reconnection On-Grid voltage upper limit, the inverter is not allowed to reconnect to the grid.
Reconnection Grid-Connection Voltage Lower Limit	Some countries/regions' standards require that after the inverter shuts down due to fault Protection, when the grid voltage is lower than the set value of the reconnection grid-connection voltage lower limit, the inverter is not allowed to reconnect to the grid.
Reconnection Grid-Connection Frequency Upper Limit	Some countries/regions' standards require that after the inverter shuts down due to fault Protection, when the grid voltage is higher than the set value of the reconnection grid-connection frequency upper limit, the inverter is not allowed to reconnect to the grid.
Reconnection Grid-Connection Frequency Lower Limit	Some countries/regions' standards require that after the inverter shuts down due to fault Protection, when the grid frequency is lower than the set value of the reconnection grid-connection frequency lower limit, the inverter is not allowed to reconnect to the grid.
Reconnection Grid-Connection Wait Time	The time interval for the inverter to reconnect to the grid after the grid voltage and frequency return to normal.
Reconnection Grid-Connection Power Ramp Rate (0.1%Pn/min)	According to the standards of certain countries or regions, when the inverter is not connected to the grid for the first time, the percentage of power increment that can be output per minute. For example: set to10, indicating that the reconnection ramp rate is:10%P/Srated%%。
LVRT Enable Bit	Low Voltage Ride Through, i.e., when a short-term Low Voltage occurs due to grid abnormality, the inverter cannot immediately disconnect from the grid and needs to support for a period of time. Enable this function to turn on the inverter's Low Voltage Ride Through function.

LVRT Depthn	Set the voltage percentage of the characteristic point of the LVRT curve.
Hold Timen	Set the Duration of the characteristic point of the LVRT curve.
LVRT Entry Threshold	Set the threshold for triggering Low Voltage Ride Through. The threshold setting must comply with local grid code requirements.
LVRT Exit Threshold	Set the threshold for exiting Low Voltage Ride Through. The threshold setting must comply with local grid code requirements.
LVRT Positive Sequence Reactive PowerKFactor	During Low Voltage Ride Through, the inverter needs to output positive-sequence reactive power to support the grid. This parameter is used to set the amount of positive-sequence reactive power output by the inverter.
Zero Current Mode for LVRT Enable Bit	Some countries/regions' standards have requirements for the output current during Low Voltage Ride Through. This parameter needs to be enabled; after setting, the output current during Low Voltage Ride Through will be less than the Rated Current's 10%.
Zero Current Mode for LVRT Entry Voltage Threshold	After enabling Zero Current Mode for LVRT, during LVRT, if the grid voltage is less than the Zero Current Mode for LVRT Entry Voltage Threshold, execute according to Zero Current Mode.
HVRT Enable Bit	High Voltage Ride Through (HVRT): when a short-term high voltage occurs due to grid abnormality, the equipment cannot immediately disconnect from the grid and needs to support for a period of time. Enable this function to turn on the inverter's High Voltage Ride Through function.
HVRT Depthn	Set the voltage percentage of the HVRT curve characteristic point.
Hold Timen	Set the Duration of the HVRT curve characteristic point.

HVRT Entry Detection Threshold	Set the threshold for triggering high voltage ride-through. The threshold setting must comply with local grid code requirements.
HVRT Exit Detection Threshold	Set the threshold for exiting high voltage ride-through. The threshold setting must comply with local grid code requirements.
HVRT Positive-Sequence Reactive PowerKFactor	During high voltage ride-through, the device needs to output positive-sequence reactive power to support the grid. This parameter is used to set the magnitude of the positive-sequence reactive power output by the device.
HVRT Zero-Current Mode Enable	Some countries/regions, standards have requirements for the output current during high voltage ride-through. This parameter must be enabled. After setting, the output current during high voltage ride-through will be less than10%。
HVRT Zero-Current Mode Entry Voltage Threshold	After the HVRT Zero-Current Mode is enabled, during HVRT, if the grid voltage is higher than the HVRT Zero-Current Mode entry voltage threshold, the Zero Current Mode is executed.
Current Distribution Mode	Set the distribution mode for reactive current and active current. 0represents reactive power priority;1represents active power priority;2represents constant current mode.
Active Power Recovery Mode After Ride-Through	During fault ride-through recovery, the active current recovery mode supports slope recovery, first-order low-pass filter recovery, no requirement, etc. 0 represents off; 1 represents slope response; 2 represents time constant; 3 represents response time
Active Power Recovery Rate After Ride-Through	During fault ride-through recovery, the rate at which active current recovers to the active current value immediately before fault ride-through.

First-Order Low-Pass Filter for Active Power Recovery After Ride-Through	After fault ride-through ends, the active current recovers with a first-order low-pass filter response characteristic.
Reactive Power Recovery Mode After Ride-Through	After fault ride-through ends, the reactive current recovery method supports slope recovery, first-order low-pass filter recovery, no requirement, etc. 0 represents off; 1 represents slope response; 2 represents time constant; 3 represents response time
Reactive Power Recovery Rate After Ride-Through	After fault ride-through ends, the reactive current recovers according to the slope value.
First-Order Low-Pass Filter for Reactive Power Recovery After Ride-Through	After fault ride-through ends, the reactive current recovers with a first-order low-pass filter response characteristic.
Frequency Ride-Through Enable Bit	After frequency ride-through is enabled, when Grid Frequency Abnormal occurs, the inverter can continue generating power within the required time.
N-stage under-frequency ride-through frequency point_UFn	Under-frequency ride-through trigger frequency point.
N-stage under-frequency ride-through time_UTn	Under-frequency ride-through duration.
N-stage over-frequency ride-through frequency point_OFn	Over-frequency ride-through trigger frequency point.
N-stage over-frequency ride-through time_OTn	Over-frequency ride-through duration

Characteristic Parameters

Parameter Name	Description
European One-Key Shutdown Enable	Enable or disable the European one-key shutdown function.
PIDFunction Switch	Enable or disable the Anti-PID function.
PID Recovery Function Switch	Enable or disablePIDRecovery function.
ISOThreshold Setting	To provide Protection for equipment safety, the inverter detects the insulation resistance between the input side and ground during startup self-check. If the detected value is lower than theISOthreshold setting, the inverter will not connect to the grid.
NPE Overvoltage Fault Detection Switch	Enable or disableN-PEovervoltage fault detection.
N-PEAlarm Threshold	N-PEOvervoltage Fault Threshold.
Active Power Dispatch Response Mode	• Set the Active Power Dispatch Response mode. Supports: slope mode or first-order low-pass filter mode. • 0:Disabled;1represents slope mode;2represents first-order low-pass time constant;3represents first-order low-pass response time.
Active Power Change Gradient	Set the inverter active power change speed.
Active Dispatch Low-Pass Filter Time Parameter	Set the Active Dispatch low-pass filter time parameter.

Parameter Name	Description
Reactive Power Dispatch Response Mode	- Set the Reactive Power Dispatch Response mode. Supports: slope mode or first-order low-pass filter mode. 0:Disabled;1represents slope mode;2represents first-order low-pass time constant;3represents first-order low-pass response time.
Reactive power ramp rate	Set the inverter reactive power ramp rate.
Reactive Dispatch Low-Pass Filter Time Parameter	Set the Reactive Dispatch low-pass filter time parameter.

Power regulation parameters

Parameter Name	Description
Over-frequency start point	Some countries/regions, standards require that when the grid frequency exceeds the over-frequency point, the active power output by the inverter shall be derated.
Over-frequency power slope(Slope)	In Slope mode, when the grid frequency exceeds the over-frequency point, this is the slope of the inverter's active power derating change.
P(F) curve enable	Enable or disable over-frequency Derating.
Under-frequency start point	Standards in some countries/regions require that when the grid frequency falls below the under-frequency point, the active power output by the inverter shall be increased.
Recovery power slope	Set the power recovery slope for exiting over-frequency Derating.
Frequency hysteresis point	Frequency point corresponding to the over-frequency hysteresis function.

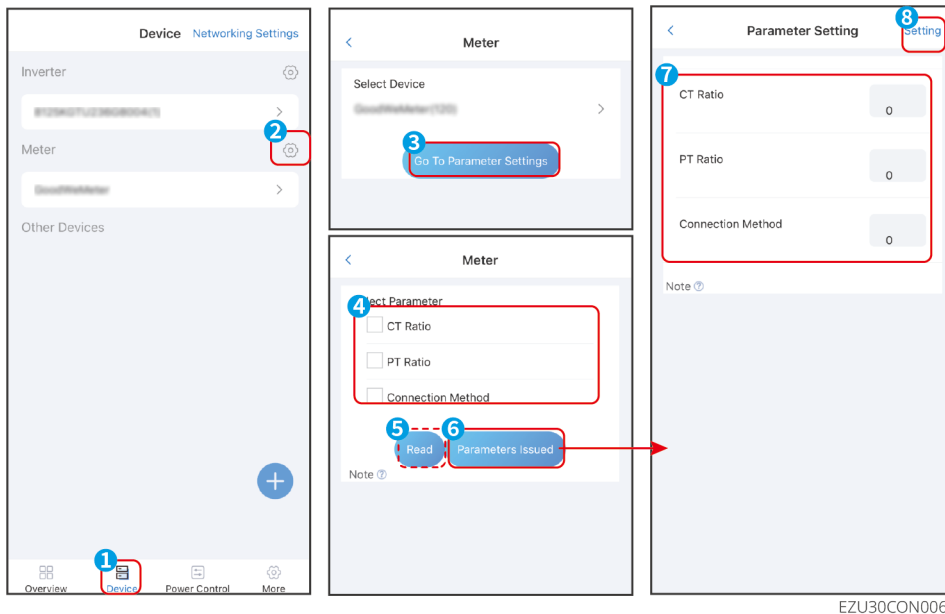
Parameter Name	Description
Silence time	Silence wait time for the over-frequency hysteresis function.
Over-frequency end point	Set the exit frequency for over-frequency Derating.
Reference power (Slope)	Slopemode, when the grid frequency exceeds the over-frequency point, the power reference value for the slope of the inverter's active power derating change.
Frequency hysteresis point	Frequency point corresponding to the under-frequency hysteresis function.
Recovery power slope	Set the power recovery slope for exiting under-frequency Derating.
Under-frequency end point	Set the exit frequency for under-frequency power increase.
Reference power (Slope)	Slopemode, when the grid frequency is lower than the under-frequency point, the power reference value for the slope of the inverter's output active power derating change.
Under-frequency power slope (Slope)	Slopemode, when the grid frequency is lower than the under-frequency point, the slope of the inverter's output active power derating change.
Silence time	Underfrequency hysteresis function silent waiting time.
PU curve enable	PUcurve enable switch.
Vn voltage value (0.1%)	SettingsPUcurve's corresponding voltage percentage.
Vn active power value (0.1%)	SettingsPUcurve's corresponding power percentage.
PUcurve output response mode	SettingsPUcurve output response mode. Supported: slope mode or first-order response mode.
PUcurve output power change rate	PUcurve output response mode is slope mode, set the corresponding power change slope.

Parameter Name	Description
PUcurve response time parameter	PUcurve output response mode is first-order response mode, set the corresponding response time.
QUcurve enable bit	QUcurve enable switch.
Vn voltage value (0.1%)	SettingsQUcurve's corresponding voltage percentage.
Vn active power value (0.1%)	SettingsQUcurve's corresponding reactive power percentage.
QUcurve response time parameter	QUcurve first-order response mode's corresponding response time.
Entry curve power(0.1%)	enterQUcurve power percentage.
Exit curve power(0.1%)	ExitQUcurve power percentage.
cos φ (P)curve enable bit	cos φ (P)curve enable switch.
npoin power(0.1%)	cos φ (P)curve's corresponding power percentage.
npoincos φ value(pf,0.001)	cos φ (P)curve's correspondingcos φ value.
cos φ (P)curve response time constant	cos φ (P)curve's corresponding response time in first-order response mode.
Entry curve voltage(0.1%)	entercos φ (P)curve.
Curve exit voltage(0.1%)	Exitcos φ (P)curve.
QPcurve enable bit	QPcurve enable switch.
QPcurvePn	QPcurve's corresponding active power percentage.
QPcurveQn	QPcurve's corresponding reactive power percentage.
QPcurve output response time constant	QPcurve's corresponding response time in first-order response mode.

7.3.5 Set Meter Parameters

Operation Steps

1. Go to the networking screen via Meter "Device" > .
2. Select the meter to view or configure, and click "Go to Parameter Item Settings".
3. Select one or more parameters to view, and click "Query" to query the current values of the selected parameters.
4. If you need to modify parameters, select one or more parameters, and click "Parameter Delivery" to enter the parameter setting screen. Enter the modified value and click "Settings".



No.	Parameter Name	Description
1	CT Ratio	Set the ratio of the CT primary-side current to the secondary-side current.
2	PT Ratio	Set the ratio of the PT primary voltage to the secondary voltage.
3	Wiring Mode	Set the meter connection method according to actual conditions.

7.3.6 Set Power Regulation Parameters

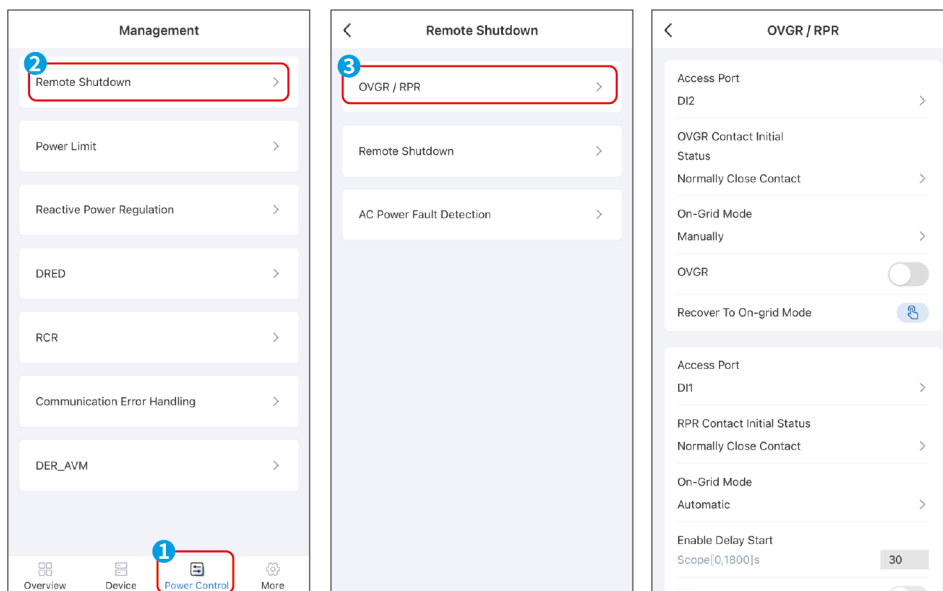
7.3.6.1 Set OVGR&RPR Parameters

7.3.6.1.1 Set OVGR Parameters

In accordance with requirements in Japan and other regions, connect the OVGR device to any DI port of the data logger to implement remote shutdown control of the inverter.

Operation Steps

1. Go to the networking screen via "Power Adjustment" > "Remote Shutdown" > "OVGR&RPR" to enter the parameter settings screen.
2. Click "AccessPort" and select the port connected to the data logger from the drop-down list according to the actual wiring.
3. According to power company and electrical requirements, select "OVGRInitial Contact State" and "Grid Connection Mode". OVGRInitial Contact State defaults to Normally Closed; Grid Connection Mode defaults to Manual.
4. Turn on the "OVGR" Function Switch.



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Parameter Name	Description
OVGR Function Switch	Enable or disable the OVGR function.
Access Port	Set according to the port actually connected to the data collector. Supported: DI1, DI2, DI3, DI4.
OVGR Initial Contact State	Set the OVGR Initial Contact State. Supports Normally Closed and Normally Open.
Grid-connected Mode	When the inverter starts again after the remote shutdown function is triggered, restore grid connection manually or automatically.
Startup Delay	Configurable when Grid Connection Mode is set to Automatic. After OVGR returns to the state set for the initial contact, the inverter automatically connects to the grid after a delay.
Restore Grid Connection	• When Grid Connection Mode is set to Manual, if the grid connection state needs to be restored after the inverter disconnects from the grid again, click the Restore Grid Connection button. • When Grid Connection Mode is set to Automatic, after OVGR returns to the state set for the initial contact, the inverter automatically connects to the grid. • When manually restoring grid connection, confirm that the fault has been cleared; otherwise, grid connection cannot be successfully restored.

7.3.6.1.2 Set RPR Parameters

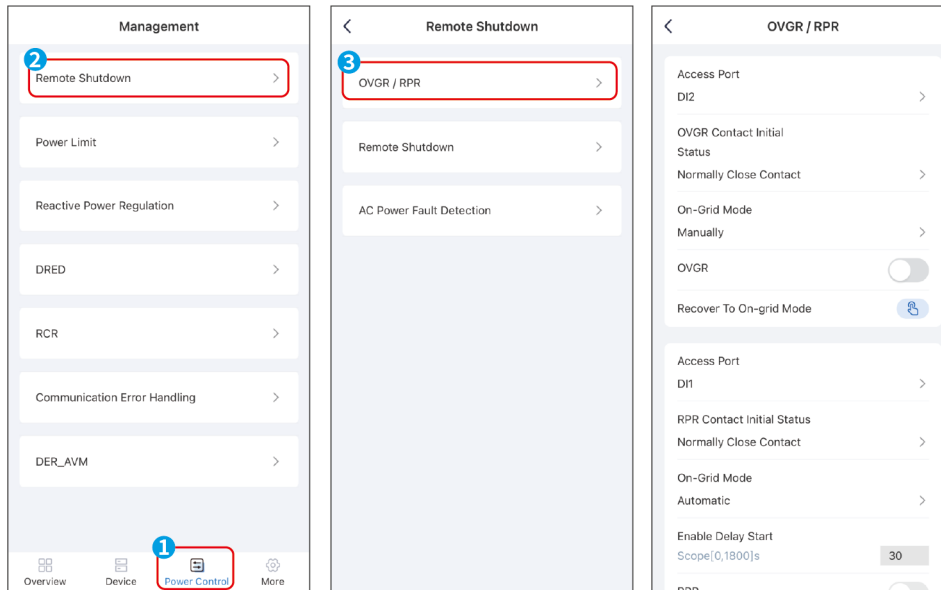
In accordance with requirements in Japan and other regions, connect the RPR device to any DI port of the data logger to implement remote shutdown control of the inverter.

Operation Steps

1. Go to the networking screen via "Power Adjustment" > "Remote

Shutdown" > "OVGR&RPR" to enter the parameter settings screen.

2. Click "AccessPort" and select the port connected to the data logger from the drop-down list according to the actual wiring.
3. According to power company and electrical requirements, select "RPRInitial Contact State" and "Grid Connection Mode".RPRInitial Contact State defaults to Normally Closed; Grid Connection Mode defaults to Manual.
4. Turn on the "RPR" Function Switch.



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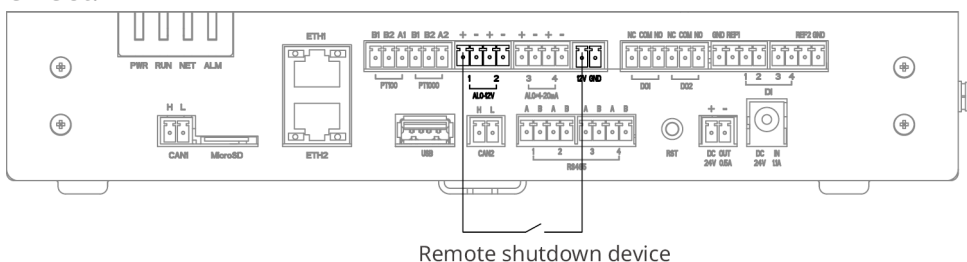
Parameter Name	Description
RPR Function Switch	Enable or disable the RPR function.
Access Port	Set according to the port actually connected to the data collector. Supported: DI1, DI2, DI3, DI4.
RPR Initial Contact State	Set the RPR initial contact state. Supports Normally Closed (NC) and Normally Open (NO).
Grid-connected Mode	When the inverter starts again after the remote shutdown function is triggered, restore grid connection manually or automatically.

Parameter Name	Description
Startup Delay	Configurable when the grid connection mode is set to Auto. After the RPR returns to the state set by the initial contact setting, the inverter automatically connects to the grid after a delay. Set according to the utility company's requirements.
Restore Grid Connection	- When Grid Connection Mode is set to Manual, if the grid connection state needs to be restored after the inverter disconnects from the grid again, click the Restore Grid Connection button. - When the grid connection mode is set to Auto, the RPR returns to the state set by the initial contact setting, and the inverter automatically connects to the grid. - When manually restoring grid connection, confirm that the fault has been cleared; otherwise, grid connection cannot be successfully restored.

7.3.6.2 Set One-Click Shutdown Parameters

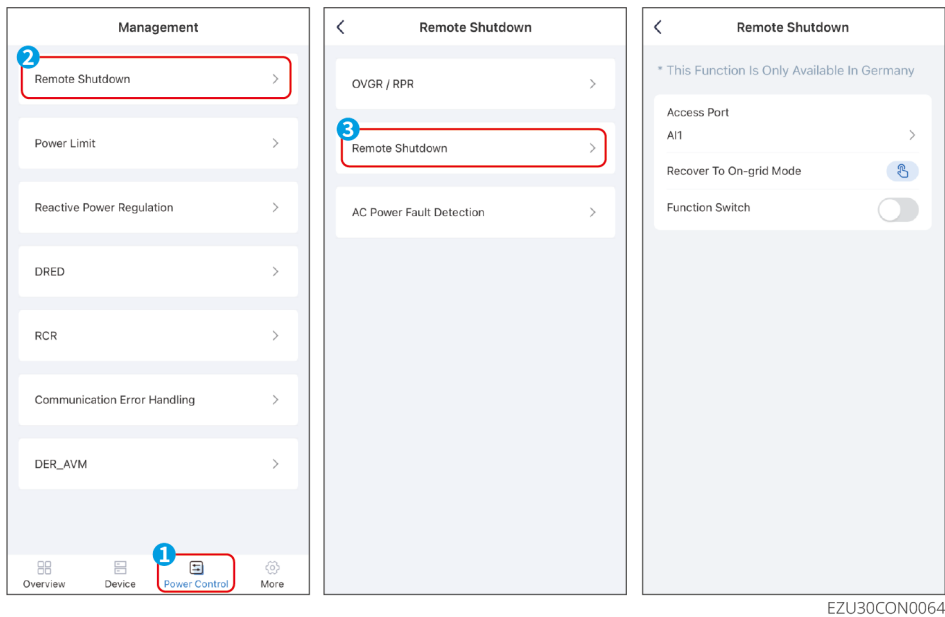
According to the requirements of certain countries or regions, if the Rapid Shutdown function is required, connect the Protection device to the AI1+ or AI2+ port and the 12V power output port of the control box.

When applying the NS Protection Function for Germany, short-circuit the NS Protection Function port on the inverter side; otherwise, this function will not take effect.



Operation Steps

1. Go to the networking screen via "Power Adjustment"> "Remote Shutdown"> "One-click Shutdown" to enter the parameter settings screen.
2. Set the Rapid Shutdown access port and port status according to actual requirements, after setting, click "Function Switch" to enable this function.



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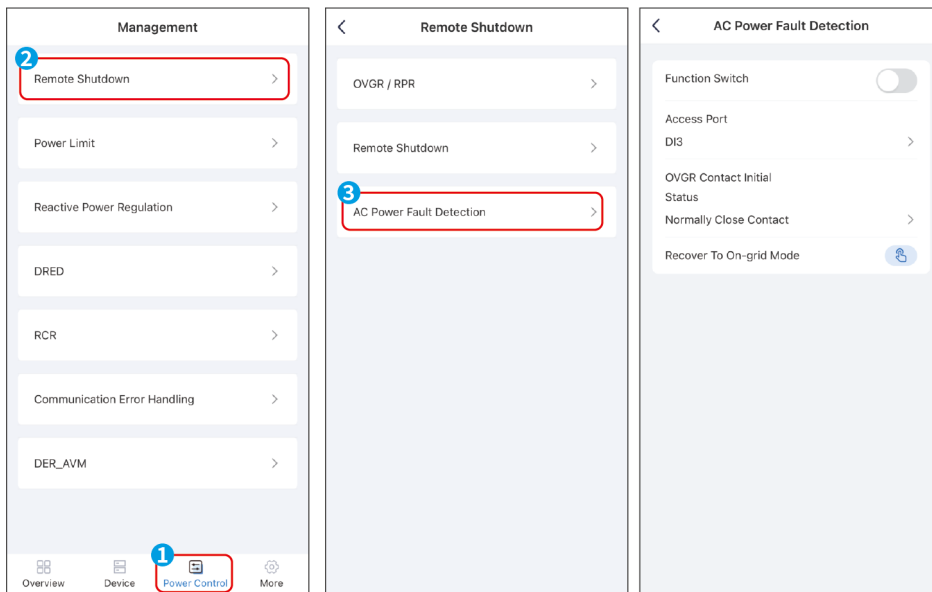
Parameter Name	Description
Function Switch	Enable or disable the Rapid Shutdown function.
Access Port	Set according to the port actually connected to the control box. Supported: AI1 or AI2.
Restore Grid Connection	After the inverter is shut down, if you need to start it and restore the grid-connected state, click the Restore Grid Connection button.

7.3.6.3 Set AC Fault Detection Parameters

According to the requirements of Japan and other regions, when the AC power at the grid-connection point is abnormal, the inverter is prohibited from connecting to the grid. Connect an external AC fault detection device to any DI port of the control box to implement AC power abnormality detection at the grid-connection point.

Operation Steps

1. Go to "Power Adjustment"> "Remote Shutdown" > "AC Fault Detection" to enter the parameter settings screen.
2. Set the AC Fault Detection access port and port status according to actual requirements, after setting, click "Function Switch" to enable this function.



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Parameter Name	Description
Function Switch	Enable or disable the AC Fault Detection function.
Access Port	Set according to the port actually connected to the data collector. Supported: DI1, DI2, DI3, DI4.
Initial Contact State	Set the initial contact state of the port. Supported: Normally Closed, Normally Open.
Restore Grid Connection	After the inverter is disconnected from the grid, if you need to start it and restore the grid-connected state, click the Restore Grid Connection button.

7.3.6.4 Set Power Limit Parameters

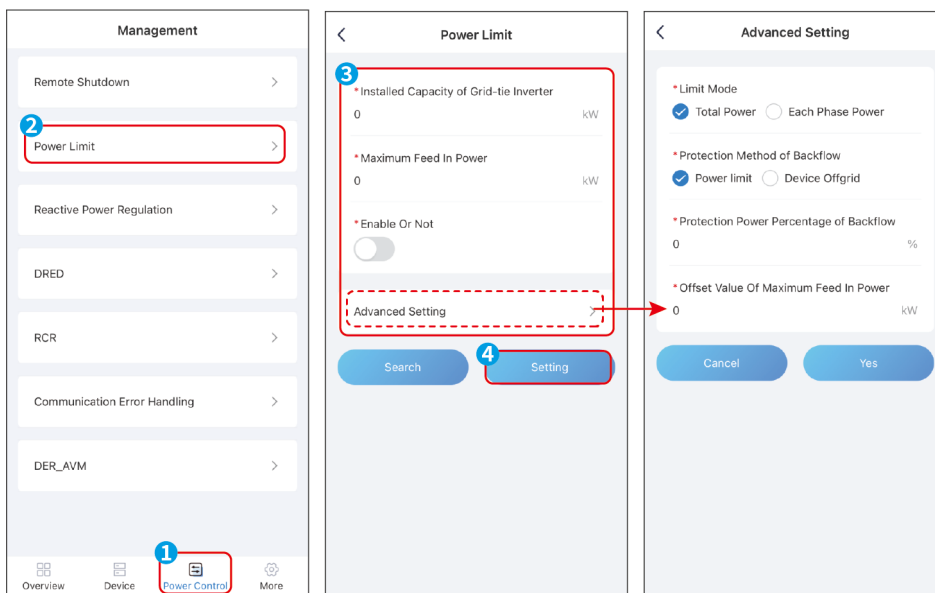
When all loads in the PV system cannot consume the energy generated by the system, the surplus energy will be fed into the grid. By setting the grid-connected power limit parameters, the Energy Generation fed into the grid can be controlled.

Operation Steps

1. Go to the networking screen via "Power Adjustment">"Power Limitation"to enter the parameter settings screen.
2. In the "Grid-Connected Inverter Installed Capacity" input box, enter the sum of the

Rated Power of all inverters.

3. In the "Maximum Feed-in Grid Power" input box, enter the maximum power flowing to the grid. For scenarios of complete self-consumption and using RPR, set it to 0.
4. Click "Start Control" to enable the power limit function.
5. Click "Advanced Settings".
6. On the Advanced Settings screen, click "Power Limited Type", and in the drop-down box select the method for controlling the device output power according to actual conditions.
7. Click "Reverse Current Protection Handling Method", select the inverter's Protection method when reverse current occurs. If RPR fails and cannot trip, the inverter will also perform Protection within a certain period of time. If "Power Limit" is selected, the power percentage for reverse current Protection handling can be further set.
8. For users with frequent load power consumption fluctuations or a large fluctuation range, an offset value can be set to increase the accuracy of Power Limit. In the "Maximum Feed-in Grid Power Offset" input box, enter the offset value to be adjusted. Example: Set to "-0.2" kW, then it will actively purchase 0.2 kW of electricity from the grid.



EZU30CON0068

Parameter Name	Description
Grid-Connected Inverter Installed Capacity	Total rated capacity of the grid-connected inverters in the system.
Maximum Feed-in Grid Power	According to the requirements of certain countries or regions, set the Max. Power that the device can actually feed into the grid.
Start Control	Enable or disable the power-limited grid connection function.
Power Limited Type	Select the method for controlling the device output power according to actual conditions. • Total Power: Control the total power at the grid connection point so that it does not exceed the output power limit value. • Single-Phase Power: Control the power of each phase at the grid connection point so that none exceeds the output power limit value.
Reverse Current Protection Handling Method	When reverse current occurs in the system for longer than the maximum Protection time(default5s), the following Protection measures can be taken: • Power Limit: The device continues to operate at a percentage of its Rated Power. • The device disconnects from the grid.
Reverse Current Protection Handling Power Percentage	The device continues to operate at a percentage of its Rated Power.

Parameter Name	Description
Maximum Feed-in Grid Power Offset	- Set the adjustable range for the Max. Power that the device can actually feed into the grid. - Max. Power Delivered to Grid = Maximum Feed-in Grid Power + Maximum Feed-in Grid Power Offset.
Meter Communication Exception Handling	Enable this function; when communication between the meter and the data logger is abnormal, Protection measures will be taken.
Meter Abnormality Handling Method	When the system experiences meter communication abnormality, the following Protection measures can be taken: - PowerLimitation: The device continues to operate at a percentage of Rated Power. - Devicedisconnects from grid.
Meter handling power percentage	The device continues to operate at a percentage of its Rated Power.

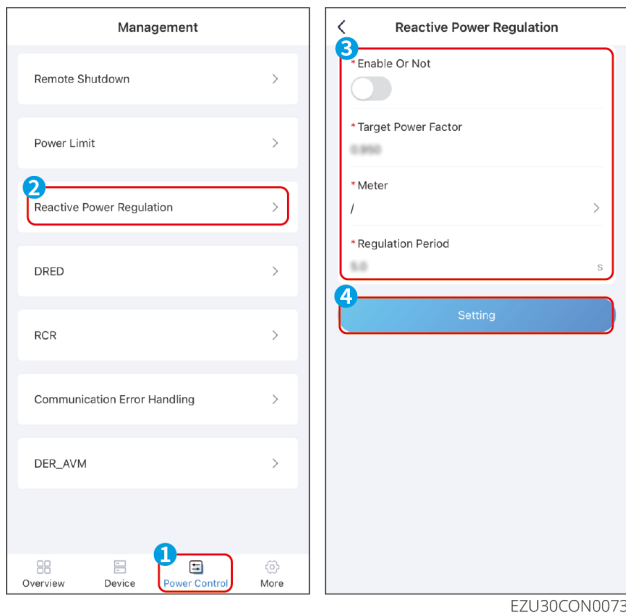
7.3.6.5 Set Reactive Power Compensation Parameters

- When a PV power plant needs to maximize benefits by adjusting the Power Factor, it can collect the power data at the grid-connection point collected by the meter and adjust the reactive power output of the PV system according to the set value to optimize the Power Factor at the gateway.
- Only applicable to scenarios where a single meter is used in a PV system.

Operation Steps

- Go to "Power Adjustment"> "Reactive Power Compensation"to enter the parameter settings screen.

2. According to actual requirements, set reactive power compensation parameters, and click "Set".



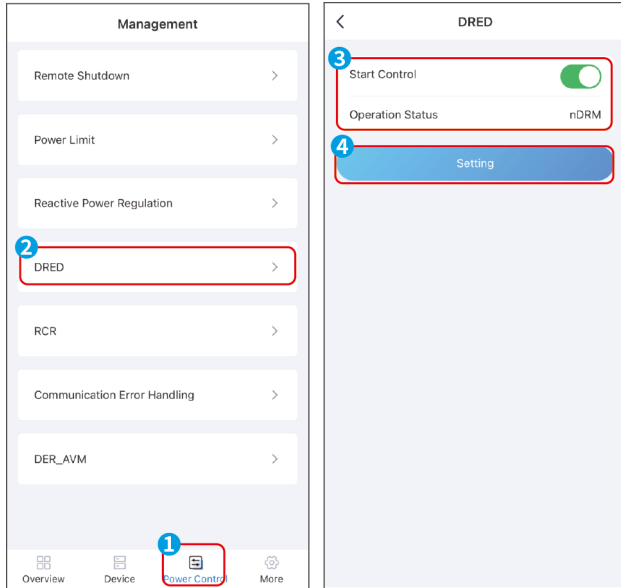
Parameter Name	Description
Start Control	Enable or disable the reactive power compensation function.
Target Power Factor	Set the Power Factor target value according to actual requirements.
Meter	Select the grid-side meter. The system obtains the power data of the grid-connection point based on the selected meter. Currently, only GoodWe meters are supported.
Regulation period	Set the period for detecting the Power Factor value. Generally set to 5 seconds.

7.3.6.6 Set DRED Parameters

- According to the standard requirements of Australia and other regions, inverters must meet DRM (DEMAND RESPONSE MODES) Certification.
- To implement the DRM function, connect the DRED (Demand Response Enabling Device) to the DI1/DI2/DI3/DI4/REF1/REF2 ports of the built-in data logger.

Operation Steps

1. Go to "Power Adjustment"> 'DRED' to enter the parameter settings screen.
2. According to actual requirements, set DREDparameters, and click 'Set'.



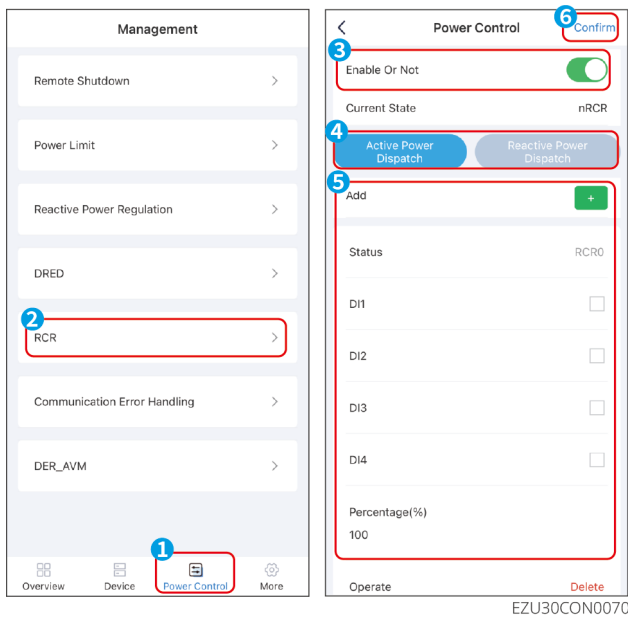
EZU30CON0069

7.3.6.7 Set RCR Parameters

- According to the standard requirements of Germany and other regions, the control box must provide RCR (Ripple Control Receiver) signal control port to meet power grid dispatch requirements.
- To implement RCR function, please connect the RCR device to the DI1/DI2/DI3/DI4/REF1 port of the built-in data collector in the control box to implement active power derating, or connect to DI1/DI2/DI3/DI4/REF2 port to implement reactive power dispatch.

Operation Steps

1. Through "Power Regulation" > "RCR" to enter the parameter settings screen.
2. Set RCR parameters according to actual requirements, and click "Confirm" to complete the setting.



No.	Parameter Name	Description
1	Start Control	Enable or disable RCR function.
2	Current Status	- Display current RCR function operating status. For example: RCR1(100) indicates the operating status is RCR1, the feed-in power is a percentage of Rated Power: 100%. - nRCR indicates the operating status is not effective.
3	Active Dispatch	- According to grid company requirements and RCR fixture type, check one or more DI ports, and set the corresponding percentage. The percentage refers to the percentage of the system output power in Rated Power. - Supports 16 levels of percentage value configuration. Please set according to the actual requirements of the grid company. - Do not repeatedly set DI1-DI4 status combinations, otherwise the function cannot be executed normally. - If the actual connected DI port wiring and web configuration do not match, the operating status will not take effect.

No.	Parameter Name	Description
4	Reactive Dispatch	• According to grid company requirements and RCR fixture type, check one or more DI ports, and set the corresponding PF value. • Supports 16 levels of Power Factor configuration. Please set according to the actual requirements of the grid company. • PF value range requirement: [-100, -80] or [80, 100] , [-100, -80] corresponding power factor lagging -0.99, -0.8] , [80, 100] corresponding power factor leading 0.8, 1] 。 • Do not repeatedly set DI1-DI4 status combinations, otherwise the function cannot be executed normally. • If the actual connected DI port wiring and web configuration do not match, the operating status will not take effect.

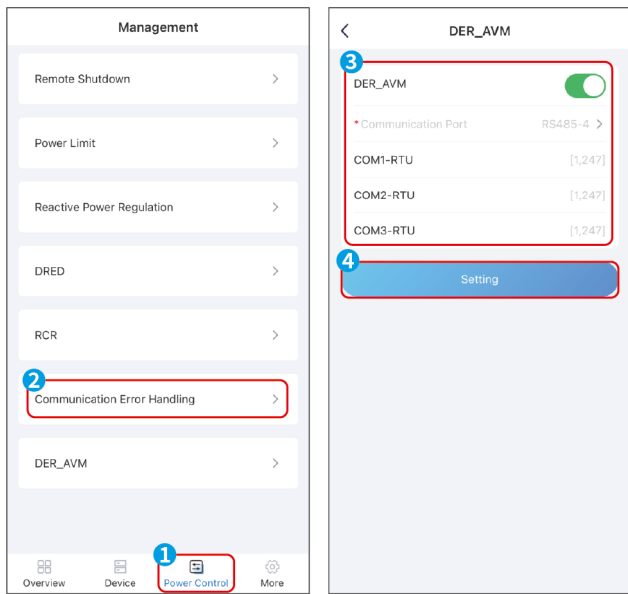
7.3.6.8 Set DER_AVM Parameters

According to the standard requirements of Korea and other regions, the inverter must provide a DER_AVM signal control port to meet power grid dispatch requirements.

To implement the DER_AVM function, connect the third-party KDN device to the RS485-4 port of the data collector.

Operation Steps

1. Go to "Power Adjustment"> "DER_AVM" to enter the parameter settings screen.
2. According to actual requirements, set reactive power compensation parameters, and click "Set".



EZU30CON0072

Parameter Name	Description
Start Control	Enable or disable the DER_AVM function.
Communication Interface	Port for connecting the device to the data collector; default is RS485-4.
COM1-RTU	Set the RTU communication address of RS4851/2/3 ports. The KDN device identifies the port address and issues dispatch commands to the inverters under the corresponding port.
COM2-RTU	
COM3-RTU	

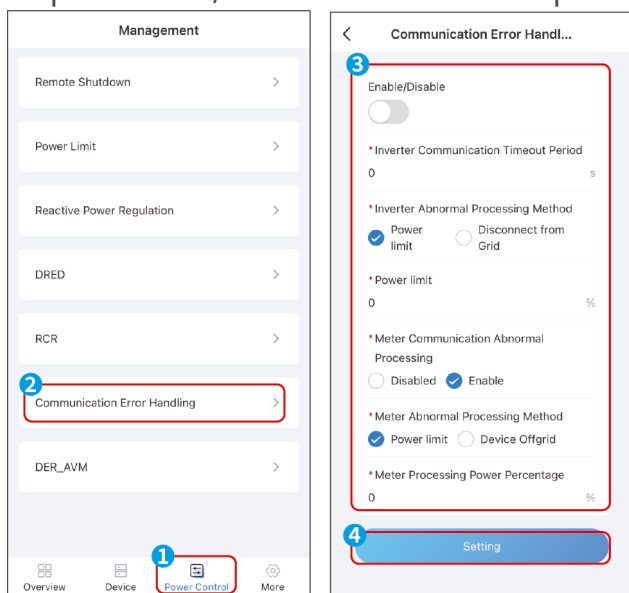
7.3.6.9 Set Communication Abnormality Protection Parameters

When communication between the data logger and the inverter or meter is abnormal, and the abnormal duration reaches the 'Communication Abnormality Timeout', the inverter and meter will execute the corresponding exception handling strategy according to the settings, such as limiting power or disconnecting from the grid.

Operation Steps

1. Go to "Power Adjustment"> "Communication Exception Configuration" to enter the parameter settings screen.

2. Set the handling method for communication exceptions according to actual requirements, and click "Set" to complete the setting.



EZU30CON0071

Parameter Name	Description
Enable/Disable	When this function is enabled, Protection measures will be taken if a communication exception occurs between the inverter and the data logger.
Inverter Communication Timeout	When the duration of a communication exception between the inverter and the data logger exceeds the set time, corresponding Protection measures will be taken.
Inverter Fault Handling Method	When a communication exception occurs between the inverter and the data logger, the following Protection measures can be taken: • Power Limit: The device continues to operate at a percentage of its Rated Power. • The device disconnects from the grid.
Meter Communication Exception Handling	After this function is enabled, Protection measures will be taken when a communication exception occurs between the meter and the data logger.

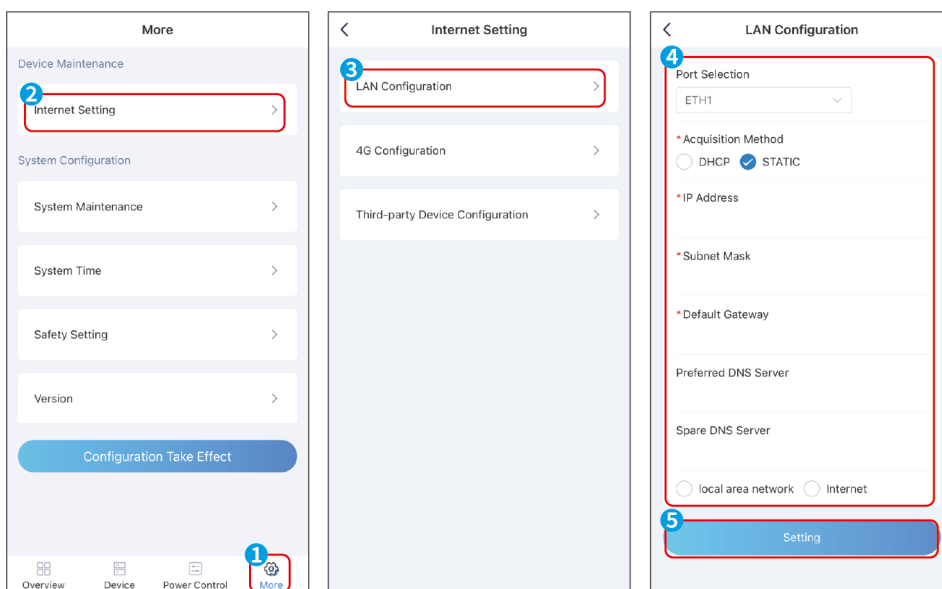
Parameter Name	Description
Meter Abnormality Handling Method	When a meter communication exception occurs, the following Protection measures can be taken: • Power Limit: The device continues to operate at a percentage of its Rated Power. • The device disconnects from the grid.
Meter handling power percentage	The device continues to operate at a percentage of its Rated Power.

7.3.7 Set Port Parameters

7.3.7.1 Set LAN Communication Parameters

Operation Steps

1. Go to "More">"NetworkSettings">"LAN Configuration" to enter the parameter settings screen.
2. Set the ETH port parameters according to actual requirements.



Parameter Name	Description
Port Selection	Set the network port actually connected to the data logger. Supported: ETH1, ETH2.
Source	• When using STATIC mode, the relevant network parameters are fixed and must be set manually. • When using DHCP mode, an IP address can be obtained automatically, and registration is completed automatically.
IP address	Configure according to the power station plan. If the IP address is modified, you need to log in again using the new IP address.
Subnet mask	Configure according to the actual subnet mask of the LAN where the data logger is located.
Default gateway	Configure according to the actual gateway of the LAN where the data logger is located.
Preferred DNS server	This parameter setting can be ignored when connecting to a LAN. Configure this when connecting to a public network (e.g., connecting to a hosted cloud, Email, third-party FTP, etc., where the server address uses a domain name); set it to the IP address of the LAN router.
Alternate DNS server	Under normal circumstances, this parameter setting can be ignored. When the preferred DNS server cannot resolve a domain name, the alternate DNS server is used.
LAN/Internet	• If you need to connect to a server to transmit data to the GoodWe Cloud, select Internet. • If you need to set forwarding parameters to connect to a third-party monitoring platform, etc., select LAN.

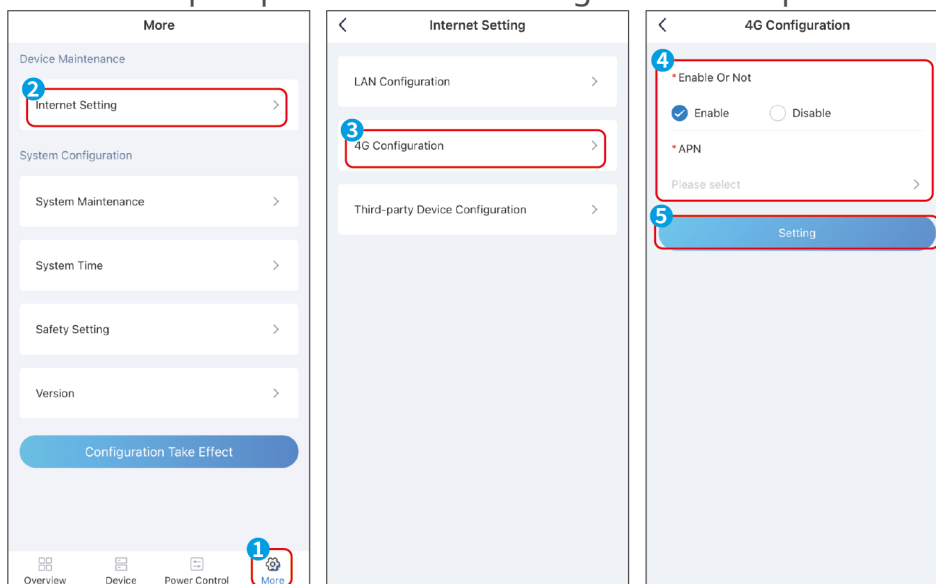
7.3.7.2 Set 4G Parameters

NOTICE

- The 4G function is available in some regions. For details, consult your local dealer.
- When communicating via 4G, disconnect the network cable between the data logger and the router; otherwise, communication may fail.

Operation Steps

1. Go to "More">"NetworkSettings" > "LAN Configuration" to access the parameter setting screen.
2. Set the ETH port parameters according to actual requirements.



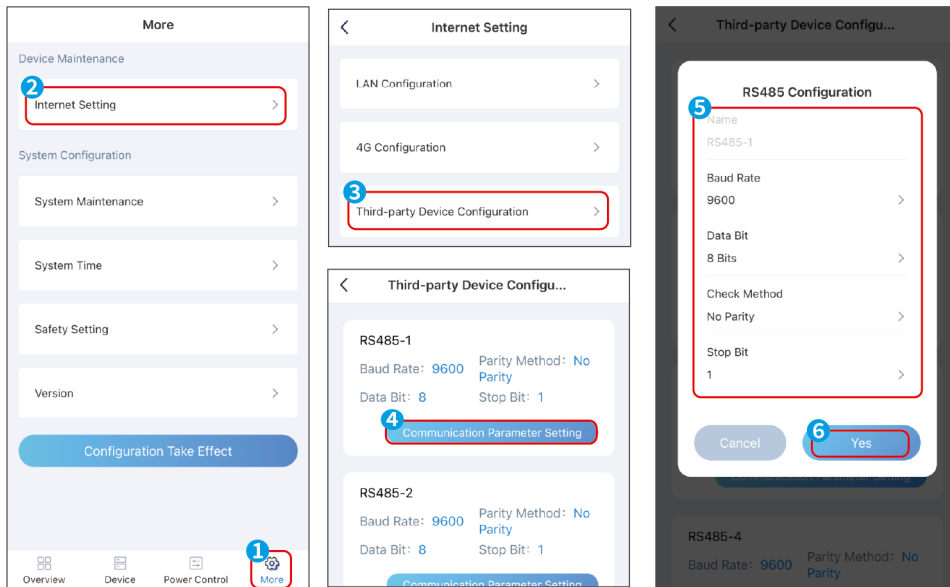
EZU30CON0076

Parameter Name	Description
Whether to Enable	Enable or disable the 4G setting. This applies only when the data logger is connected to the system via a 4G network.
APN	Select the carrier according to actual conditions.

7.3.7.3 Set RS485 Communication Parameters

Operation Steps

1. Go to "More">"NetworkSettings" > "RS485 Configuration" to enter the parameter settings screen.
2. Set the RS485 port parameters based on actual requirements.



EZU30CON0075

Parameter Name	Description
Name	Select according to the RS485 port to which the device is actually connected.
Baud Rate	Set according to the baud rate of the connected device. Currently supported: 300, 1200, 2400, 9600, 19200, and 115200.
Data Bits	Currently supported: 7 bits and 8 bits.
Parity Mode	Set according to the parity mode of the connected device. Currently supported: No parity, odd parity, even parity, 0 parity, and 1 parity.
Stop Bits	Set according to the stop bits of the connected device. Currently supported: 1, 1.5, and 2.

8 System Maintenance

8.1 System Power-Off

DANGER

When performing operation and maintenance on the equipment, please power off. Operating the equipment with power on may cause equipment damage or electric shock hazard.

Operating steps:

1. Unplug the power adapter from the socket.
2. Disconnect the power adapter from the device.

8.2 Equipment Removal

DANGER

- Ensure the device is powered off.
- When operating the device, please wear personal protective equipment.

Step1: Disconnect all electrical connections of the device, including power cables and communication cables.

Step2: Remove the device.

Step3: Store the device properly. If it will be used again later, ensure the storage conditions meet the requirements.

8.3 Equipment Disposal

When the device can no longer be used and needs to be scrapped, dispose of the device according to the electrical waste disposal requirements of the laws and regulations of the country/region where the device is located. Do not dispose of the device as household waste.

8.4 Periodic Maintenance

DANGER

When performing operation and maintenance on the equipment, please power off. Operating the equipment with power on may cause equipment damage or electric shock hazard.

Maintenance Content	Maintenance Method	Maintenance Cycle
Electrical Connections	Check whether the electrical connections are loose, whether the cables are damaged, and whether there is exposed copper.	Once per half-year to once per year
Environmental Check	Check whether there are strong electromagnetic interference devices or heat sources around the EzLogger.	Once per half-year to once per year

8.5 System Maintenance (WEB)

8.5.1 Upgrade Devices

USB flash drive upgrade procedure: (only applicable to data logger upgrade)

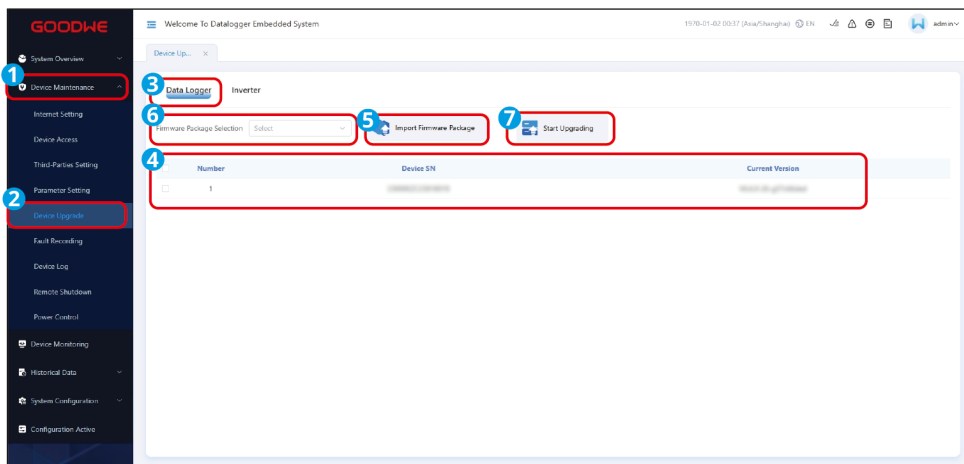
1. Contact after-sales to obtain the device upgrade package, and prepare a FAT32-formatted USB flash drive with a capacity not exceeding 32 GB.
2. Create a new folder named collector in the root directory of the USB flash drive, and place the device upgrade package in the collector folder.
3. Insert the USB flash drive into the USB port of the data logger. After the data logger detects the device upgrade package and starts the upgrade, the fault indicator turns to fast flashing. If the fault indicator does not turn to fast flashing, the upgrade has not started; check the upgrade package and USB flash drive status. After the upgrade is complete, the fault indicator turns steady on or off.
4. After the upgrade is complete, the data logger automatically restarts.

Web upgrade procedure:

1. Contact after-sales to obtain the device upgrade package.
2. Store the device upgrade package locally on the computer, and upgrade the device according to the following operation prompts.
3. After the upgrade is complete, the interface automatically redirects to the login page. Please log in to the web again.

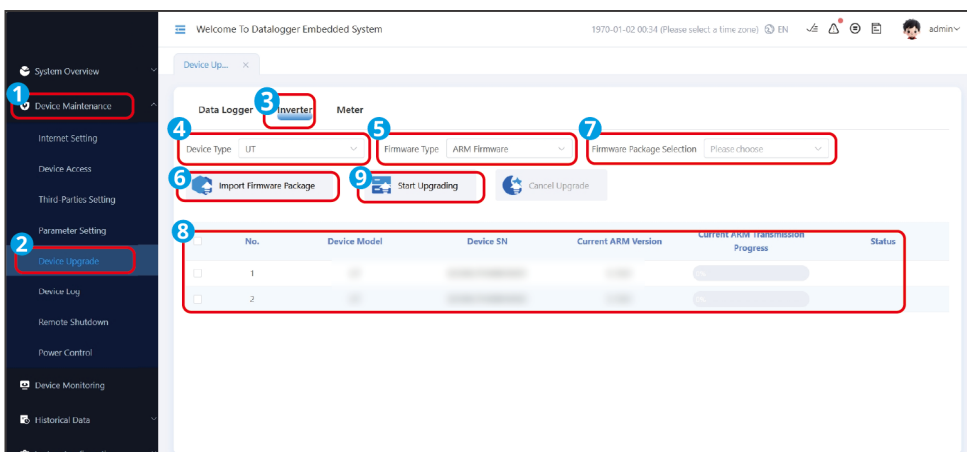
Refer to the figure below for the operation interface:

- Upgrade Data Logger



EZU30CON0037

- Upgrade Inverter



EZU30CON0036

8.5.2 Maintain the System



EZU30CON0040

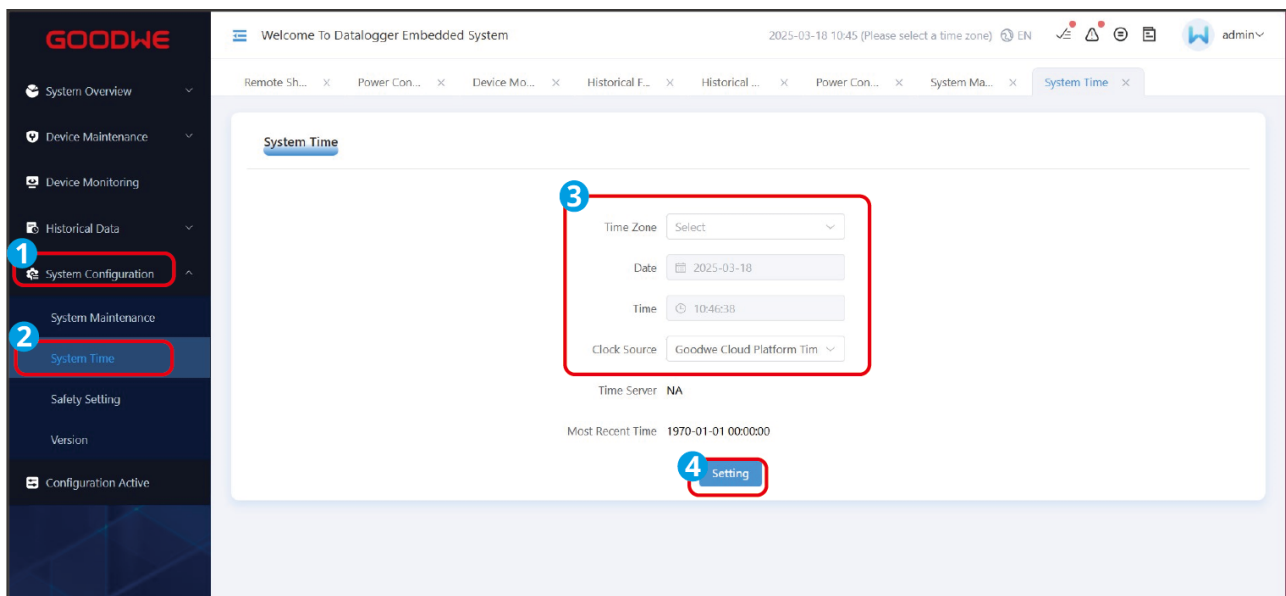
Parameter Name	Description
Restart Data Logger	The data logger will automatically shut down and restart, and will clear cached data, such as imported firmware packages.
Restore Factory Settings	- Restore factory settings: clears device access information, forwarding configuration, login password, and other information. - Restore communication configuration: (optional) restore network card configuration. - Restore data logger data: (optional) clear logs, historical alarms, historical data, and other information.
Data Clearing	Clear the data logger's historical data, temporary files, runtime logs, operation logs, and other data, and restart the data logger.
Import Full Configuration File	- After replacing the data logger, you can import the locally exported configuration file to the new data logger. After successful import, the data logger restarts and the configuration file takes effect. Confirm that the device parameters have been correctly configured. - Only applicable to data loggers of the same version.

Parameter Name	Description
Export Full Configuration File	- Before replacing the data logger, export the configuration file locally. - Only applicable to data loggers of the same version.
Remote Access Permission	Once enabled, it supports redirection to the embedded web via SEMS+ web.

8.5.3 Set System Time

NOTICE

- Modifying the date and time will affect the system Energy Generation and the integrity of performance data records. Do not change the time zone or system time arbitrarily.
- When the clock source is set to IEC104 or ModbusTCP, enable the corresponding time synchronization function on the forwarding configuration screen.



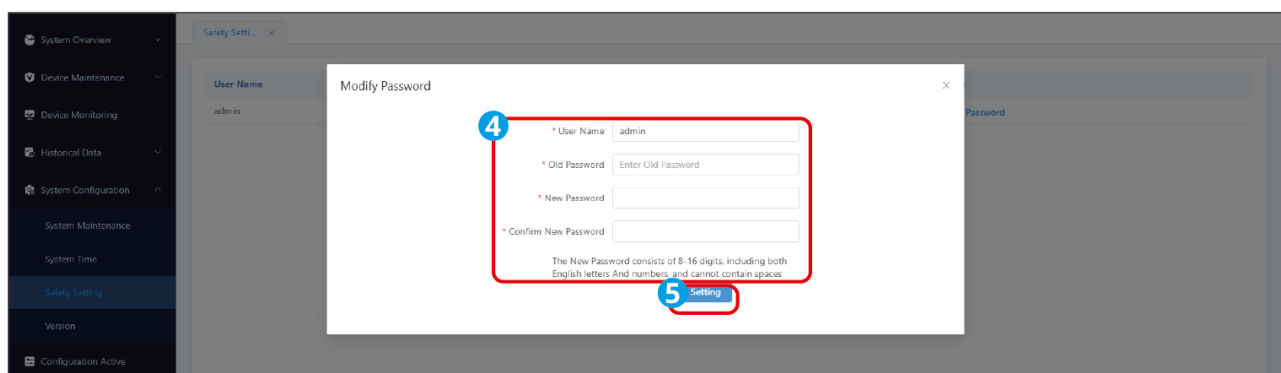
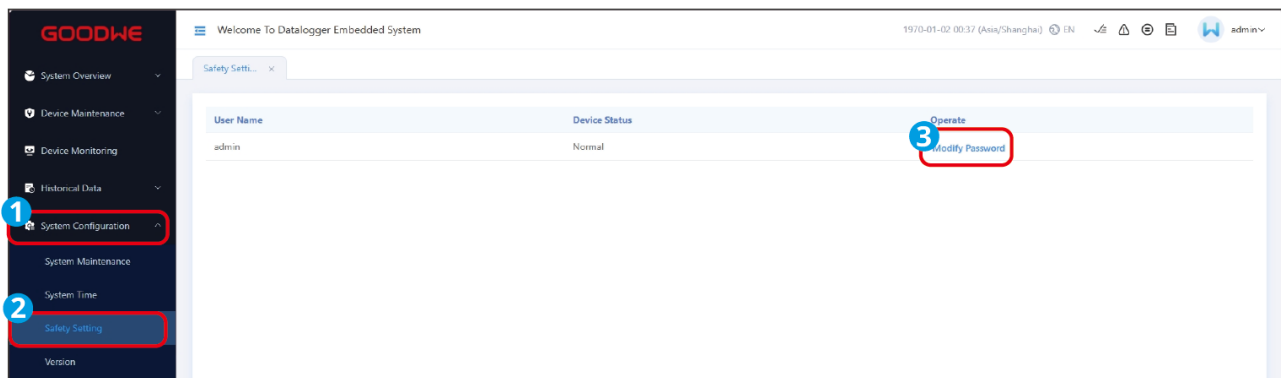
EZU30CON0024

No.	Parameter Name	Description
1	Time Zone	It can be modified manually only when the clock source is set to Manual Time Synchronization.
2	Date	
3	Time	
4	Clock Source	Set the clock source. Supported: NTP、Modbus-TCP, Manual Time Synchronization, GoodWe Cloud Platform Time Synchronization.

8.5.4 Change Login Password

Operating steps:

1. Go to "Data Logger Configuration" > "Security Settings" to enter the Change Password screen.
2. Click "Change Password", enter the old and new passwords as required, and click "Save".



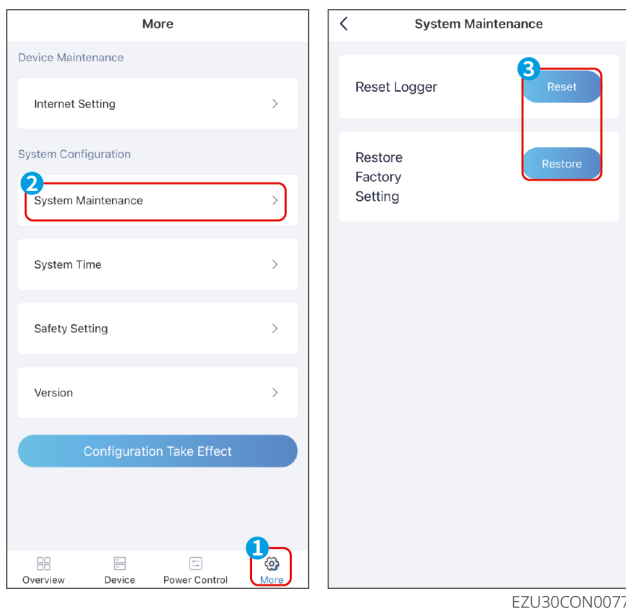
EZU30CON0043

8.6 System Maintenance (App)

8.6.1 Maintain the System

Operation Steps

1. Click "More" > "System Maintenance" to enter the System Maintenance interface.
2. Restart the data logger or restore factory settings according to actual needs.



Parameter Name	Description
Restart Data Logger	The data logger will automatically shut down and restart, and will clear cached data, such as imported firmware packages.
Restore Factory Settings	• Restore factory settings: clears device access information, forwarding configuration, login password, and other information. • Restore communication configuration: (optional) restore network card configuration. • Restore data logger data: (optional) clear logs, historical alarms, historical data, and other information.

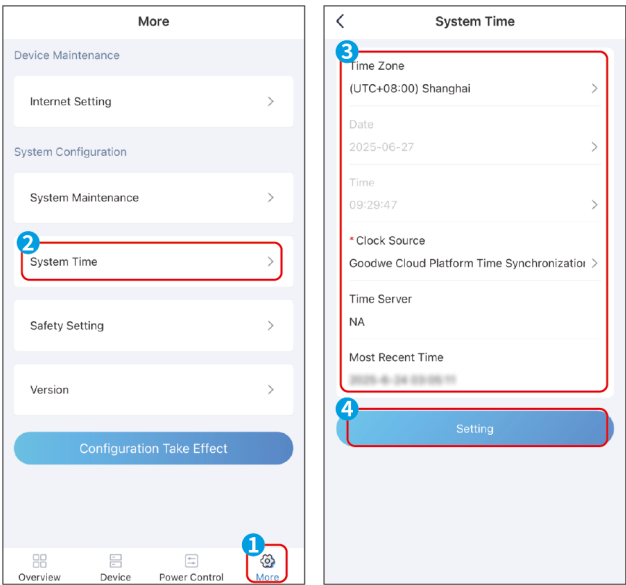
8.6.2 Set System Time

NOTICE

Modifying the date and time will affect the system Energy Generation and the integrity of performance data records. Do not change the time zone or system time arbitrarily.

Operation Steps

- 1. Go to "More" > "System Time"enter System Time Settings
- 2. Select the "Clock Source" according to actual requirements, set the system time, and click "Set".



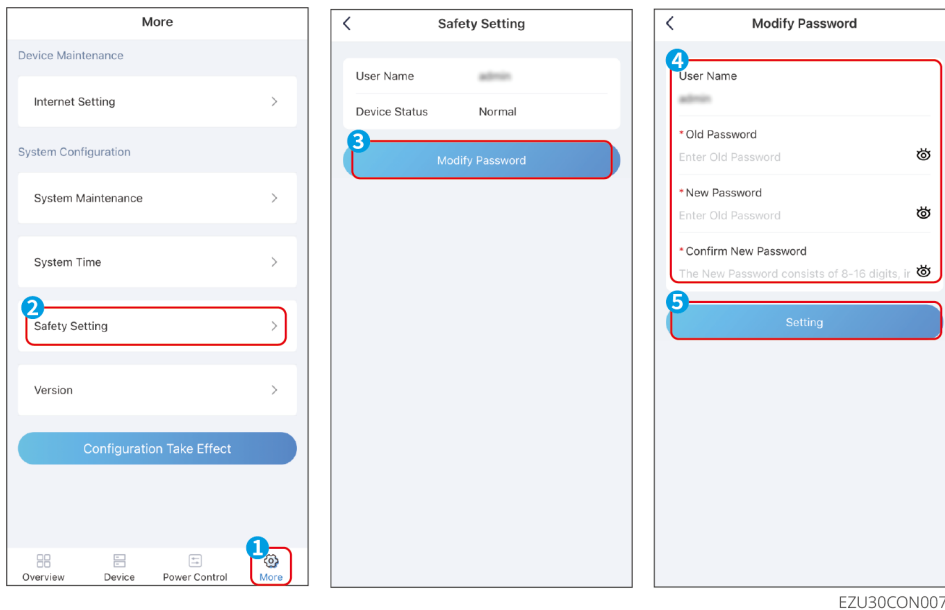
EZU30CON0078

No.	Parameter Name	Description
1	Time Zone	It can be modified manually only when the clock source is set to Manual Time Synchronization.
2	Date	
3	Time	
4	Clock Source	Set the clock source. Supported:NTP、Modbus-TCP, Manual Time Synchronization, GoodWe Cloud Platform Time Synchronization.

8.6.3 Change Login Password

Operating steps:

- 1. Go to "More" > "Security Settings" to enter the Change Password screen.
- 2. Click "Change Password", enter the old and new passwords as required, and click "Submit".

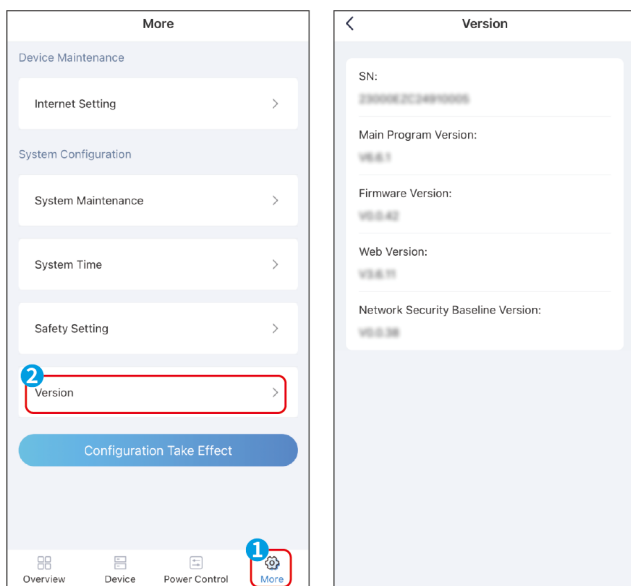


EZU30CON0079

8.6.4 View Version Information

Operation Steps

1. Click "More" > "Version Information" to view the current version of the data logger.



EZU30CON0080

8.7 Fault

Perform troubleshooting according to the following methods. If the troubleshooting methods cannot help you, please contact the after-sales service center.

When contacting the after-sales service center, please collect the following information to help resolve the issue quickly.

1. Product information, such as serial number, software version, device installation time, fault occurrence time, fault occurrence frequency, etc.
2. Device installation environment, such as weather conditions, whether the modules are obstructed or shaded, etc. For the installation environment, it is recommended to provide photos, videos, and other files to assist in problem analysis.
3. Grid conditions.

No.	Fault Symptom	Fault Cause	Solutions
1	Device Cannot Be Powered On	• The DC output of the power adapter is not correctly connected to the device port. • The power adapter is not correctly connected to the socket. • Power adapter fault. • Device fault.	• Check the power adapter to ensure it is correctly connected to the data logger. • Check the power adapter and confirm that it is properly connected to the power outlet. • Replace the power adapter. • If the problem persists, contact your dealer or after-sales service center.

No.	Fault Symptom	Fault Cause	Solutions
2	Unable to log in to the embedded Web via wired network	• The operating system or browser version is too old. • The Ethernet cable is connected to the wrong port. • The computer's IP address is incorrectly configured • Incorrect Web login address. • Browser error. • Device fault.	• Confirm that the operating system version is Windows 7 or later; the browser version is Chrome 52, Firefox 58 or later. • When logging in with a static IP, confirm that the Ethernet cable is connected to the ETH2 port. • Check whether the IP addresses of the computer and the data logger are in the same subnet. • Enter https://172.18.0.12:443 in the browser to log in to the Web. • Clear browser history or cache. • Power cycle the device, wait 2 minutes, and log in again. If login still fails after 3 restarts, contact your dealer or after-sales service center.

No.	Fault Symptom	Fault Cause	Solutions
3	Unable to log in to the embedded Web via WiFi	• The operating system or browser version is old. • Weak wireless signal. • Incorrect Web login address in the browser. • Browser error. • Device fault.	• Use Windows 7 or later operating system, and use Chrome 52, Firefox 58 or later browser versions. • Under unobstructed conditions, the recommended distance between the PC or mobile phone and the data logger is 15 m. Check whether the distance is too far. • Enter https://172.18.0.12:443 in the browser to log in to the Web. • Clear browser history or cache. • Power cycle the device, wait 2 minutes, and log in again. If login still fails after 3 restarts, contact your dealer or after-sales service center.

No.	Fault Symptom	Fault Cause	Solutions
4	Unable to connect to the data logger's WiFi hotspot	• The data logger's WiFi hotspot is not enabled • The WiFi antenna is not installed or is installed incorrectly • The data logger is beyond the WiFi communication range • Device failure	• Log in to the Web via wired network, enable the WiFi hotspot function, and then reconnect to the hotspot. • Check whether the WiFi antenna in the accessory pack is correctly installed. • Under unobstructed conditions, the recommended distance between the PC or mobile phone and the data logger is 15 m. Check whether the distance is too far. • Power cycle the device, wait 2 minutes, and log in again. If login still fails after 3 restarts, contact your dealer or after-sales service center.
5	Unable to use the automatic search function to search for devices	• This is not the first network setup; the automatic device search function is only applicable to the first network setup. • The inverter is not powered on. • RS485 wiring error, such as reverse connection, missing connection, loose connection, etc. • Device failure	• If you need to add devices, please add them via Device Access. • Check whether the inverter is powered on. • Check the RS485 wiring to ensure it is correct, secure, and free from missing connections. • Power cycle the device, wait 2 minutes, and log in again. If login still fails after 3 restarts, contact your dealer or after-sales service center.

No.	Fault Symptom	Fault Cause	Solutions
6	Unable to upload data to the cloud platform via wired network	• The router or switch connected to the data logger cannot connect to the external network. • Network parameters are incorrectly configured, such as IP assignment method, IP address, etc. • Device fault. • The router has a firewall enabled.	• Check the network status of the router or switch. • Check the network parameter settings. • Power cycle the device, wait 2 minutes, and log in again. If login still fails after 3 restarts, contact your dealer or after-sales service center.
7	The 4G module cannot upload data to the cloud platform	• The 4G antenna is not installed or is installed incorrectly. • Poor contact of the SIM card or no data allowance on the SIM card. • The 4G function is not enabled. • The network cable between the data logger and the router is not disconnected. • Device fault.	• Check whether the 4G antenna in the accessory package is correctly installed. Check whether the SIM card is intact and has data allowance. Enable the 4G function on the Web settings page. • When communicating via 4G, disconnect the network cable between the data logger and the router. • Power cycle the device, wait 2 minutes, and log in again. If login still fails after 3 restarts, contact your dealer or after-sales service center.

No.	Fault Symptom	Fault Cause	Solutions
8	Unable to upgrade the system via USB flash drive	• Incorrect USB flash drive format. • The upgrade package is not placed in the specified directory. • Device fault.	• Check whether the USB flash drive format is FAT32. • Create a new folder in the root directory of the USB flash drive and name it collector. • Place the device upgrade package in the collector folder. Please contact your dealer or after-sales service center.
9	Unable to upgrade the inverter system through the Web interface	• The inverter does not support the remote upgrade function. • The upgrade file is incorrect or corrupted. • The upgrade file does not match the inverter version. • Abnormal RS485 communication cable connection. • Device fault.	• Confirm whether the inverter supports remote upgrade. • Contact your dealer or after-sales service center for the correct upgrade file. • Check that the RS485 communication wiring is correct and reliable. • Please contact your dealer or after-sales service center.

No.	Fault Symptom	Fault Cause	Solutions
10	Power Limit function abnormal	• The RS485 communication cable between the data logger and the inverter or meter is loose or disconnected. • The Power Limit function is not enabled, or the configuration did not take effect after the function was enabled. • The inverter software version does not support the Power Limit function. • Device fault.	• Check whether the RS485 communication cable is connected correctly and securely. • Check whether the Power Limit function is enabled in the Web interface. • Please contact your dealer or after-sales service center to determine whether the inverter model and software version support the Power Limit function.

No.	Fault Symptom	Fault Cause	Solutions
11	One-click shutdown or OVGR&RPR function abnormal	• The RS485 communication cable between the data logger and the inverter is loose or disconnected. • External Protection device wiring error. • Web parameter configuration error. • Device fault.	• Check whether the RS485 communication cable is connected correctly and securely. • Check whether the external Protection device wiring is correct and secure. • Check whether the parameter configuration is correct. • Power cycle the device, wait 2 minutes, and log in again. If login still fails after 3 restarts, contact your dealer or after-sales service center.
12	DRED/RCR function abnormal	• The RS485 communication cable between the data logger and the inverter is loose or disconnected. External Protection device wiring error. • The DRED/RCR function is not enabled. Device fault.	• Check whether the RS485 communication cable is connected correctly and securely. • Check whether the external Protection device wiring is correct and secure. • Enable the DRED/RCR function through the Web. • Power cycle the device, wait 2 minutes, and log in again. If login still fails after 3 restarts, contact your dealer or after-sales service center.

No.	Fault Symptom	Fault Cause	Solutions
13	Data logger forwarding IEC104, Modbus-TCP, IEEE2030.5, FTP failed or no data in Email backend	• Network problem between the data logger and the monitoring platform. • Forwarding configuration parameter error. • Device fault. • The automatically searched inverter does not support the forwarding function.	• Check whether the network between the data logger and the monitoring platform is normal. • Confirm whether the forwarding parameter configuration is correct. • Please contact your dealer or after-sales service center. • Upgrade the ARM version of the corresponding inverter, or delete the inverter from the data logger subarray.
14	After device search is complete, the address cannot be configured	The inverter ARM version is too low.	Please contact your dealer or after-sales service center.

9 Technical Specifications

Technical Specifications	EzLogger3000C
Device Management	
Maximum Number of Connected Devices	100
Power Supply	
Power Adapter	AC Input: 100–240 V, 50/60 Hz; DC Output: 24 V
DC Input (V)	24
Power Consumption (W)	<15
Communication Interface	
Ethernet	2
RS485	COM x 4
WiFi (Local Configuration)	IEEE 802.11 b/g/n @2.4 GHz
4G	Optional
Digital/Analog Input/Output	DI×4, DO×2, AI×4
PT100/PT1000	PT100×1, PT1000×1
Power Output Port	12V, 100mA
Communication Protocols	
Ethernet	Modbus-TCP, IEC 60870-5-104

Technical Specifications	EzLogger3000C
RS485	Modbus-RTU
User Interface	
LED	LED×4
Web	Embedded Web
USB	USB 2.0 x 1
Mechanical Parameters	
Dimensions (W × H × D mm)	255*47.5*173
Weight (kg)	0.8
Mounting Method	Wall mounting, DIN rail, desktop
Environmental Parameters	
Operating Temperature Range (°C)	-30~+60
Storage Temperature Range (°C)	-40~+70
Relative Humidity	5~95%
Max. Operating Altitude (m)	5000
Ingress Protection Rating	IP20
Compliant Standards	
Certification	CE-RED (EN18031) 、RCM、Anatel、KC、MIC、VCCI、WPC、FCC、ISED

10 Appendix

10.1 FAQ

10.1.1 How to Set Power Limit via WEB

Prerequisites:

- Refer to the device user manual to correctly complete the installation and power-on of the inverters, data loggers, meters, and other devices in the system.
- Refer to [7.2.4. Logging In to the Web Interface \(Page 54\)](#) chapter to log in to the Web interface.
- Ensure the system networking is successful and all inverters are online.

Operation Steps

1. On the home page of the Web interface, click "Device Maintenance" > "Device Access" > "Auto Search" > "Networking Settings" to add devices.
2. (Optional) If the meter is a third-party meter, return to the Device Access screen and click "Manual Add" to enter the Add Device screen.
3. (Optional) "Device Type" is selected as "Meter", and enter the actual device information according to the screen, then click "Confirm" to complete the information entry.
4. Click "Configuration Effective" to enter the Configuration Take Effect screen. Click Apply to complete adding the inverter and meter.
5. Click "Device Maintenance" > "Power Regulation" > "Power Limitation" to enter the Power Limit settings screen.
6. Enter the relevant information according to the on-screen instructions and actual Power Limit requirements.

If you have any questions about the steps for adding devices, refer to [7.2.7. Device Management \(Page 120\)](#) chapter. If you have any questions about Power Limit settings, refer to [7.2.12.1. Set Power Limit Parameters \(Page 106\)](#) chapter.

10.1.2 How to Set IEC104 via WEB

Prerequisites:

- Refer to the device user manual to correctly complete the installation and power-

on of the inverters, data loggers, meters, and other devices in the system.

- Refer to [7.2.4. Logging In to the Web Interface \(Page 54\)](#) chapter to log in to the Web interface.
- Ensure the system networking is successful and all inverters are online.

Operation Steps

1. Click "Device Maintenance" > "Network Settings" to enter the network parameter settings screen.
2. Click "LAN" tab, "Source" set to STATIC, select LAN, and enter the IP information as required.
3. Click "Device Maintenance" > "Forwarding Configuration" to enter the forwarding configuration screen.
4. On the "IEC104" settings screen, click Add Channel, fill in the actual information according to the screen, and click "Confirm" to complete the information entry.
5. Click "Configuration Effective" to enter the configuration take effect screen, and click "Take Effect" to complete the IEC104 function configuration.
Debug the third-party software as required to establish a connection with the data collector.

If you have any questions about IEC104 forwarding settings, please refer to [7.2.9.1. Set IEC104 Parameters \(Page 75\)](#) chapter.

10.1.3 How to Set Modbus-TCP Parameters via WEB

Prerequisites:

- Refer to the device user manual to correctly complete the installation and power-on of the inverters, data loggers, meters, and other devices in the system.
- Refer to [7.2.4. Logging In to the Web Interface \(Page 54\)](#) chapter to log in to the Web interface.
- Ensure the system networking is successful and all inverters are online.

Operation Steps

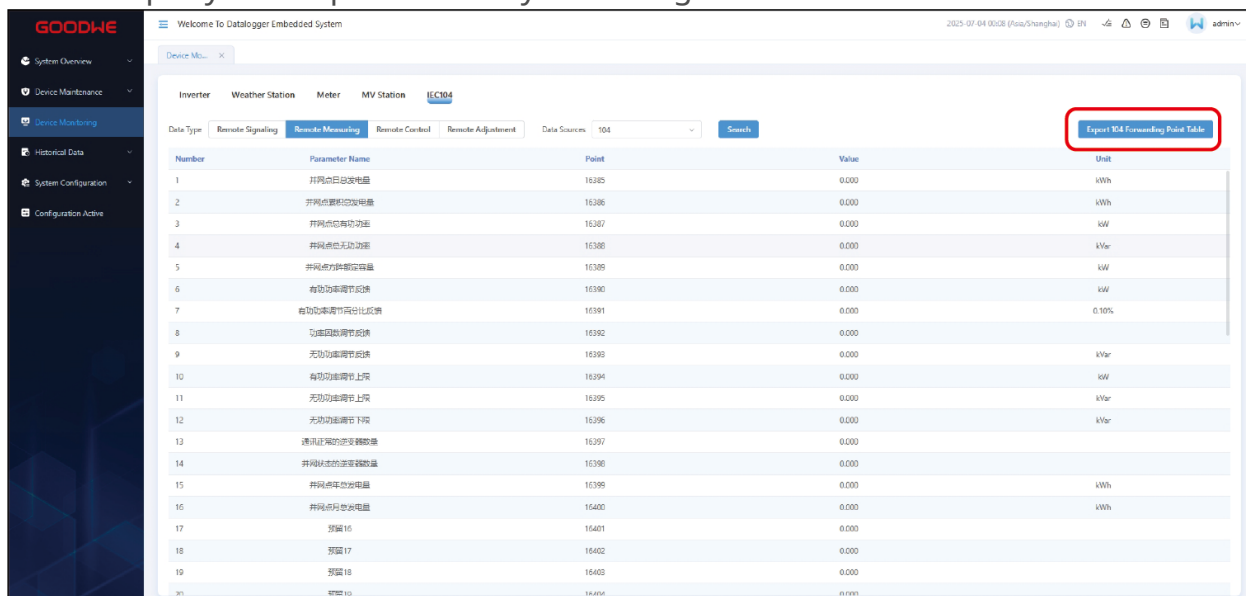
1. Click "Device Maintenance" > "Network Settings" to enter the network parameter settings screen.
2. Click "LAN" tab, "Source" set to STATIC, select LAN, and enter the IP information as required.
3. Click "Device Maintenance" > "Forwarding Configuration" to enter the forwarding configuration screen.

4. On the “Modbus-TCP” settings screen, click “Add Channel”, fill in the actual information according to the screen, and click “Confirm” to complete the information entry.
 5. Click “Configuration Effective” to enter the configuration take effect screen, and click “Take Effect” to complete the Modbus-TCP function configuration.
Debug the third-party software as required to establish a connection with the data collector.
- If you have any questions about Modbus-TCP forwarding settings, please refer to [7.2.9.2. Set Modbus-TCP Parameters \(Page 77\)](#) chapter.

10.1.4 How to Export the 104 Forwarding Point Table via WEB

Operation Steps

1. Click “Device Monitoring” to enter the Device Monitoring screen.
 2. Click “IEC104” tab > “Export 104 Forwarding Point Table”。
 3. Find the exported 104 forwarding point table in the browser download content.
- You can query the required data by searching the inverter serial number.



The screenshot shows the GOODWE web interface. The left sidebar contains navigation options: System Overview, Device Maintenance, Device Monitoring (selected), Historical Data, System Configuration, and Configuration Active. The main content area is titled 'Welcome to Datalogger Embedded System' and shows the 'IEC104' tab selected. Below the tabs, there is a 'Data Type' dropdown set to 'Remote Monitoring' and a 'Data Sources' dropdown set to '104'. A 'Search' button is present. A red box highlights the 'Export 104 Forwarding Point Table' button in the top right corner. Below this, a table displays the forwarding point data.

Number	Parameter Name	Point	Value	Unit
1	并网当日总发电量	16385	0.000	kWh
2	并网点前日发电量	16386	0.000	kWh
3	并网点前有功功率	16387	0.000	kW
4	并网点前无功功率	16388	0.000	kVar
5	并网点前功率因数	16389	0.000	kW
6	有功功率调节反馈	16390	0.000	kW
7	有功功率调节反馈比例	16391	0.000	0.10%
8	无功功率调节反馈	16392	0.000	
9	无功功率调节反馈	16393	0.000	kVar
10	有功功率调节上限	16394	0.000	kW
11	无功功率调节上限	16395	0.000	kVar
12	无功功率调节下限	16396	0.000	kVar
13	通讯正常的逆变器数量	16397	0.000	
14	并网状态的逆变器数量	16398	0.000	
15	并网当年发电量	16399	0.000	kWh
16	并网当月发电量	16400	0.000	kWh
17	报警 16	16401	0.000	
18	报警 17	16402	0.000	
19	报警 18	16403	0.000	
20	报警 19	16404	0.000	

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10.1.5 How to Add New Devices After the Networking Device Search Is Completed

NOTICE

If scenarios other than the following occur, it is recommended to reset the data collector or contact the after-sales service center.

- Scenario 1: Existing devices in the network do not need to be changed, and the networking configuration has not taken effect
 - Web

Step 1: In "Device Access" screen, click "Auto Search" > "Networking Settings" > "Start Search", search for new devices according to the screen prompts.

Step 2: After the new device search is complete, check the new device, and either assign addresses with one click or manually enter the terminal address according to actual needs.

Step 3: Follow the on-screen prompts to complete the configuration take effect. After the settings are complete, return to the Device Access screen and confirm whether the networking information is complete and correct.

- App

Step 1: Via "Device" > "Networking Settings" > "Start Search", search for new devices according to the screen prompts.

Step 2: After the new device search is complete, assign an address to the new device or manually enter the terminal address according to actual needs.

Step 3: Follow the on-screen prompts to complete the configuration take effect. After the settings are complete, return to the Device Access screen and confirm whether the networking information is complete and correct.

- Scenario 2: Existing devices in the network do not need to be changed, and the networking configuration has taken effect
 - Web

Step 1: In "Device Access" screen, click "Auto Search" > "Networking Settings" > "Re-network". Follow the on-screen prompts to log in again, and on the "Device Access" screen, click "Auto Search" > "Networking Settings" > "Start Search" to complete searching for new devices.

Step 2: After the new device search is complete, check the new device, and either assign addresses with one click or manually enter the terminal address according to actual needs.

Step 3: Follow the on-screen prompts to complete the configuration take effect. After the settings are complete, return to the Device Access screen and confirm whether the networking information is complete and correct.

- App

Step 1: Go to Device > Networking Settings > Re-network. Follow the on-screen prompts to log in again, then go to Device > Networking Settings > Start Search to complete searching for the new device.

Step 2: After the new device search is complete, assign an address to the new device or manually enter the terminal address according to actual needs.

Step 3: Follow the on-screen prompts to complete the configuration take effect. After the settings are complete, return to the DeviceAccesssscreen and confirm whether the networking information is complete and correct.

- Scenario 3: Existing devices in the network need to be changed, and the networking configuration has not taken effect
 - Web

Step 1: On the Device Access screen, click“Auto Search”>“Delete History”。

Step 2: After waiting 10 minutes or restarting the inverter, on the Device Access screen, click“Auto Search”>“Networking Settings”>“Start Search”, and complete the search according to the on-screen prompts.

Step 3: Follow the on-screen prompts to complete the configuration take effect. After the settings are complete, return to the Device Access screen and confirm whether the networking information is complete and correct.

- App

Step 1: Via“Device”>“Networking Settings”>“Delete History”。

Step 2: After waiting 10 minutes or restarting the inverter, go to“Device”>“Networking Settings”>“Start Search”to complete the search.

Step 3: Follow the on-screen prompts to complete the configuration take effect. After the settings are complete, return to the DeviceAccesssscreen and confirm whether the networking information is complete and correct.

- Scenario 4: Existing devices in the network need to be changed, and the networking configuration has taken effect
 - Web

Step 1: On the Device Access screen, click "Auto Search" > "Networking Settings" > "Re-network". Follow the on-screen prompts to log in again, and on the Device Access screen go to "Device" > "Networking Settings" > "Start Search" to complete searching for new devices.

Step 2: After the new device search is complete, check the new device, and either assign addresses with one click or manually enter the terminal address according to actual needs.

Step 3: Follow the on-screen prompts to complete the configuration take effect. After the settings are complete, return to the Device Access screen and confirm whether the networking information is complete and correct.

- **App**

Step 1: Via "Device" > "Networking Settings" > "Re-network". Re-log in as prompted by the UI, then go to "Device" > "Networking Settings" > "Start Search" to complete searching for new devices.

Step 2: After the new device search is complete, assign an address to the new device or manually enter the terminal address according to actual needs.

Step 3: Follow the UI prompts to complete and apply the configuration. After the settings are complete, return to the Device screen and check whether the networking information is complete and correct.

10.1.6 How to Batch Set Inverter Startup/Shutdown via WEB

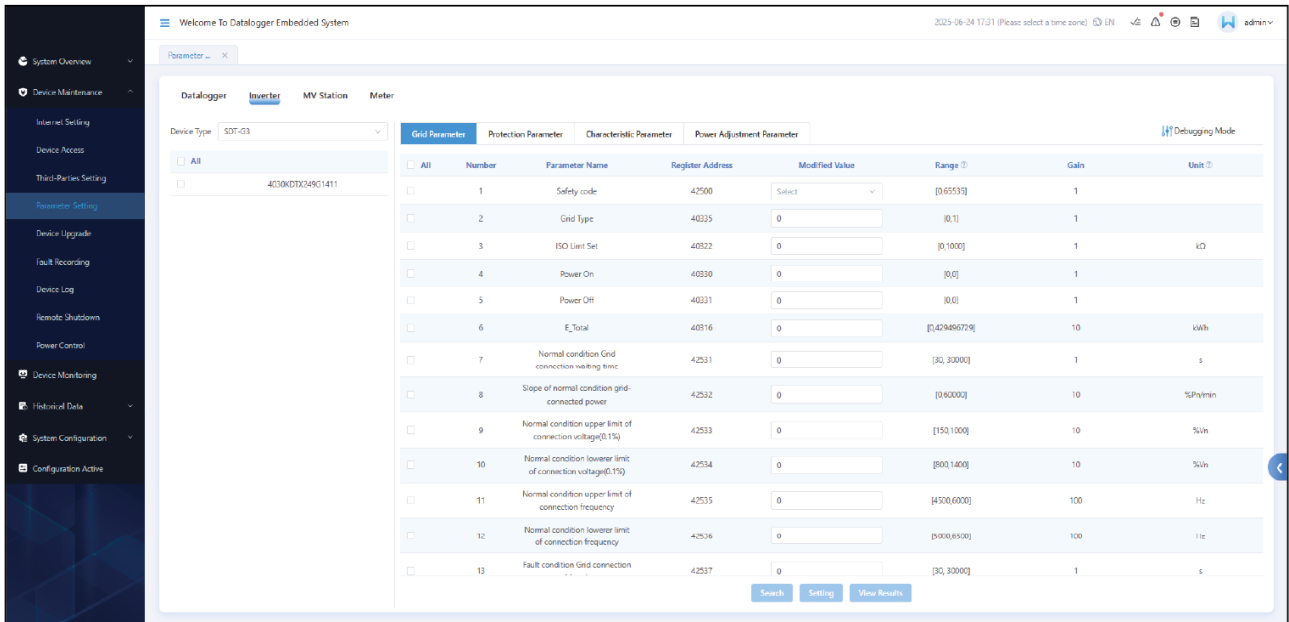
Prerequisites:

- Refer to the device user manual to correctly complete the installation and power-on of the inverters, data loggers, meters, and other devices in the system.
- Refer to [7.2.4. Logging In to the Web Interface \(Page 54\)](#) chapter to log in to the Web interface.
- Ensure the system networking is successful and all inverters are online.

Operation Steps

1. On the home page of the Web interface, click "Device Maintenance" > "Parameter Settings" > "Inverter", to view the currently online inverters.
2. On the "Device Type" drop-down box, select the inverter model and check the corresponding inverter(s) based on the serial number.

3. Select “Shutdown” or “Startup”, and set the modified value to 1.
4. Click “Settings” button. After a moment, you will be prompted with the modification result.
5. Return to the homepage and view the inverter operating status.



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10.2 Glossary

Overvoltage Category Definitions

- Overvoltage Category I: Equipment connected to circuits with measures that limit transient Overvoltage to a relatively low level.
- Overvoltage Category II: Energy-consuming equipment supplied from a fixed distribution installation. Such equipment includes appliances, portable tools, and other household and similar loads. If special requirements are placed on the reliability and availability of such equipment, Overvoltage Category III shall be used.
- Overvoltage Category III: Equipment in fixed distribution installations, for which reliability and availability must meet special requirements. Includes switchgear and controlgear in fixed distribution installations and industrial equipment permanently connected to fixed distribution installations.
- Overvoltage Category IV: Equipment used on the supply side of the distribution installation, including measuring instruments and upstream overcurrent Protection devices, etc.

Explanation of Wet Location Categories

Environmental Parameters	Level		
	3K3	4K2	4K4H
Humidity Range	0~+40°C	-33~+40°C	-33~+40°C
Temperature Range	5% to 85%	15% to 100%	4% to 100%

Environmental Category Definitions

Outdoor inverter: ambient air temperature range is -25 to +60°C, suitable for environments with Pollution Degree 3;

Indoor Type II inverter: ambient air temperature range is -25 to +40°C, suitable for environments with Pollution Degree 3;

Indoor Type I inverter: ambient air temperature range is 0 to +40°C, suitable for environments with Pollution Degree 2;

Pollution Degree Category Definitions

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

Pollution Degree 2: Normally, only non-conductive pollution occurs, but temporary conductive pollution caused by condensation must be considered;

Pollution Degree 3: Conductive pollution occurs, or non-conductive pollution becomes conductive due to condensation;

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

11 Contact Information

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