GOODWE

User Manual

Smart DataLogger

EzLogger3000U&EzLogger3000U-A

V1.2-2024-10-10

Trademarks

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NOTICE

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

CONTENT

01 About This Manual

This document describes the product information, installation, electrical connection, commissioning, troubleshooting, and maintenance. Read through this document before installing and operating the product. All the installers and users have to be familiar with the product features, functions, and safety precautions. This document is subject to update without notice. For more product details and latest documents, please visit https://en.goodwe.com.

1.1 Applicable Model

This document applies to the Smart DataLogger: EzLogger3000U and EzLogger3000U-A (EzLogger for short).

1.2 Target Audience

This document applies to trained and knowledgeable technical professionals only. The technical personnel has to be familiar with the product, local standards, and electric systems.

1.3 Symbol Definition

Different levels of warning messages in this document are defined as follows:

⚠ DANGER
Indicates a high-level hazard that, if not avoided, will result in death or serious injury.
⚠ WARNING
Indicates a medium-level hazard that, if not avoided, could result in death or serious injury.
⚠ CAUTION
Indicates a low-level hazard that, if not avoided, could result in minor or moderate injury.
NOTICE
Highlight and supplement the texts. Or some skills and methods to solve product-related problems to save time.

2 Safety Precaution

NOTICE

The equipment is designed and tested strictly in compliance with related safety rules. Read and follow all the safety instructions and cautions before any operations. Improper operation might cause personal injury or property damage as the equipments are electrical equipment.

2.1 General Safety

NOTICE

- The information in this document is subject to change due to product updates or other reasons. This document cannot replace the product labels or the safety precaution unless otherwise specified. All descriptions in the document are for guidance only.
- Before installations, read through this document to learn about the product and the precautions.
- All installations should be performed by trained and knowledgeable technicians who are familiar with local standards and safety regulations.
- Strictly follow the installation, operation, and configuration instructions in this document. The manufacturer shall not be liable for equipment damage or personal injury if you do not follow the instructions. For more warranty details, visit https://www.goodwe.com/support-service/warranty-related.

2.2 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

- Connect a PE cable to the nearest grounding point of the equipment.
- Before operation, make sure the device is reliably grounded.

2.3 Personal Safety

⚠DANGER

- Use insulating tools and wear personal protective equipment (PPE) when operating the equipment to ensure personal safety.
- Do not touch the equipment when it is short-circuited. Keep away from the equipment, and turn off the power immediately.
- Before wiring, disconnect all upstream switches to ensure the device is not powered on.

2.4 Equipment Safety

⚠ DANGER

Make sure the installation place is solid enough to bear the equipment weight before installation.

⚠WARNING

- Use appropriate tools for proper installation, maintenance, etc.
- Observe local standards and safety regulations when operating the equipment.
- Unauthorized disassembly or modification may cause damage to the equipment, which is not covered within the warranty scope.

2.5 Definition of Warning Labels

DANGER

- All labels and warning marks must be clear and distinct after the installation. Do not block, alter, or damage any label.
- Warning labels on the equipment are as follows.

	HIGH VOLTAGE HAZARD Power off the equipment before any operations.		Potential risks exist. Wear proper PPE before any operations.
	Read through the document before any operations.		Grounding point.
CE	CE marking		Do not dispose of the equipment as household waste. Discard the product in compliance with local laws and regulations, or send it back to the manufacturer.

2.6 Personnel Requirements

NOTICE

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

2.7 EU Declaration of Conformity

The equipment without wireless communication modules sold in the European market meets the requirements of the following directives:

- 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)

You can download the EU Declaration of Conformity on: https://en.goodwe.com.

2.8 Cyber Security Declaration of Conformity

Remote Data Collection Statement

Equipment manufacturers will regularly and remotely collect limited non sensitive data generated during product use, including abnormal event information and indicator information, such as system alarm information, illegal operation records, abnormal scalar measurement, etc. This can help the backend technical team of equipment manufacturers timely discover problems in the system and respond, reducing customer losses.

GW Security Vulnerabilities Management

The GOODWE Product Network Security Processing Team (PNSPT) is dedicated to addressing security vulnerabilities in GOODWE products. These vulnerabilities, unlike quality defects, must be exploited by an attacker to cause harm. PNSPT commits to managing security issues according to relevant standards, reducing vulnerabilities, and providing timely risk mitigations to minimize harm to customers.

Key Commitments:

1. Vulnerability Management:
   - Reduce and eliminate security risks for customers.

- Provide prompt risk mitigations after discovering vulnerabilities.
- Identify and manage responsibilities, including legal, contractual, and public standards.
- Continuously improve processes and standards based on industry best practices.

2. Reporting Vulnerabilities:
   - Encourages reporting from security researchers, organizations, customers, and suppliers.
   - Reports should include a description, product model, software version, and contact information via email to service@goodwe.com.
   - Maintain confidentiality until a solution is available.
3. Vulnerability Response:
   - Analyze, validate, and assess the severity of reported vulnerabilities. After receiving the vulnerability report, we will analyze it and reply to the customer within 7 days.
   - Develop and prioritize remediation strategies, including patches and risk mitigations. When the vulnerability is confirmed, we will provide a fixing plan within 30 days. After the plan is confirmed, we will fix the vulnerability and verify it, and issue updates within 90 days.
   - Work with suppliers for vulnerability remediation when necessary.
4. Confidentiality and Data Protection:
   - Ensure information is shared only among relevant handlers.
   - Protect data and maintain confidentiality until solutions are provided.
   - Comply with legal requirements and protect obtained data.
5. Service Term Statement

The equipment manufacturer commit to providing ongoing updates and maintenance of software and security features for five years after product release, ending on September 30, 2029. After the security update support period is extended, it will be updated in time later; after the security update support period is released, it will not be shortened later.

PNSPT ensures a proactive and responsible approach to managing security vulnerabilities, aiming to maintain the integrity, availability, and confidentiality of GOODWE products and services.

3 Product Introduction

3.1 Functions

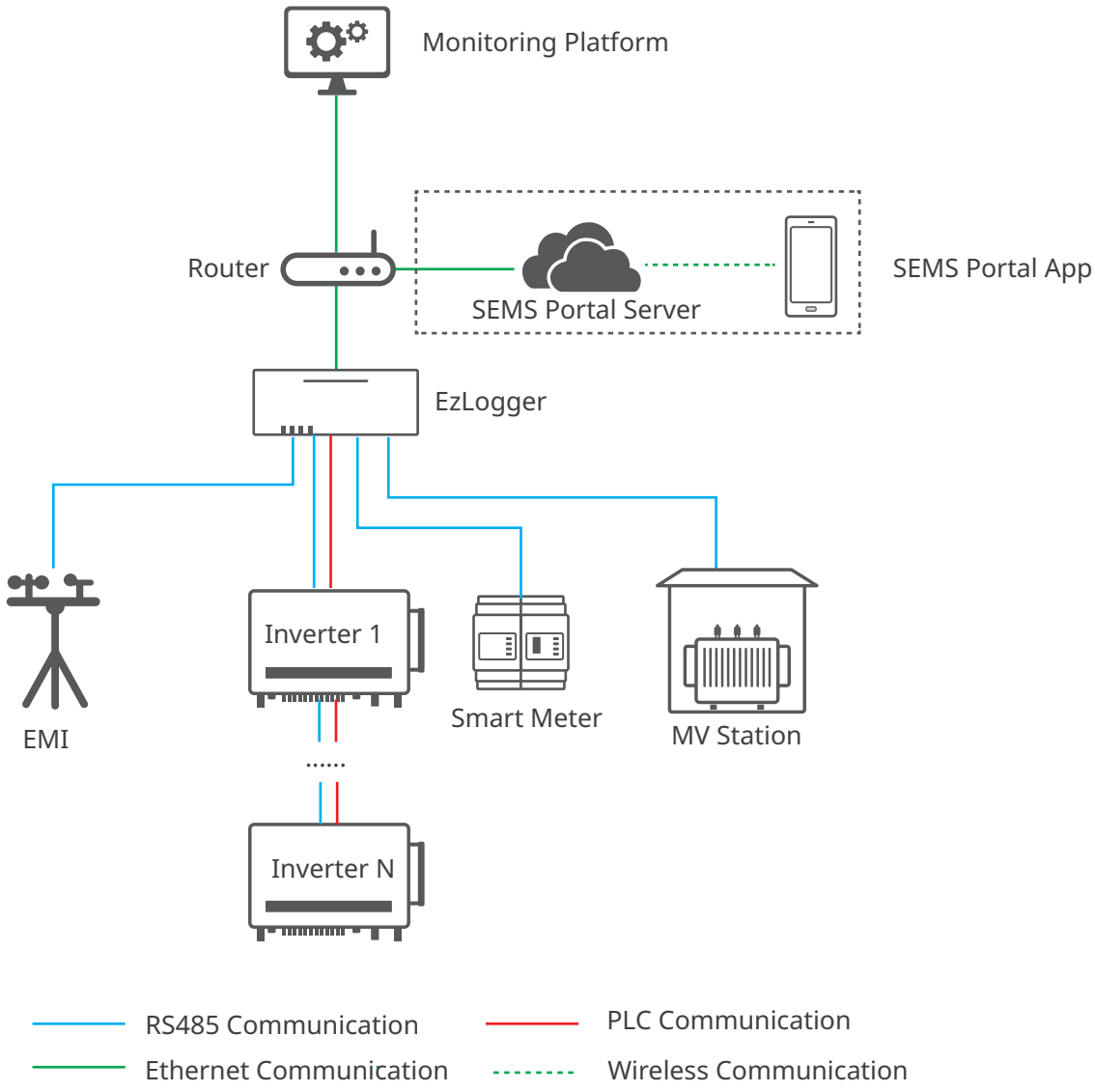
EzLogger is an exclusive equipment to connect with the monitoring platform in PV power generation system. It integrates the ports to connect with the inverter, the environmental monitoring instrument (EMI), the smart meter and other devices. It owns the functionalities of data logging, log storage, centralized monitoring and maintenance in PV power generation system.

3.2 Networking

EzLogger is applicable to the PV power generation system:

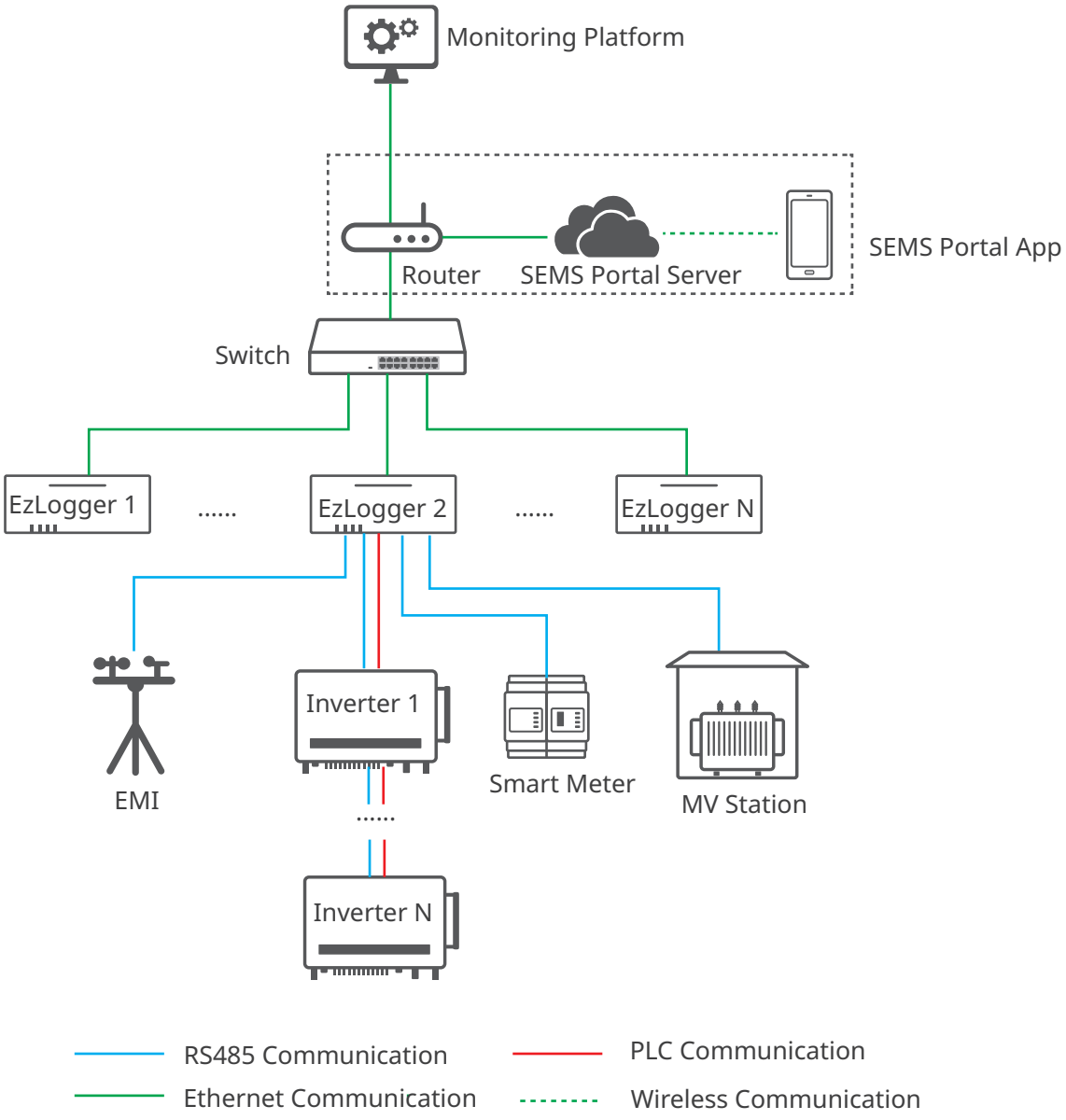
- Via RS485 communication to connect: RS485 devices such as the inverter, the smart meter, and EMI;
- Via Ethernet communication to connect: the router, the switch, PC and power plant monitoring system;
- Via PLC communication to connect: the inverters with PLC functionality.

Networking of Single EzLogger

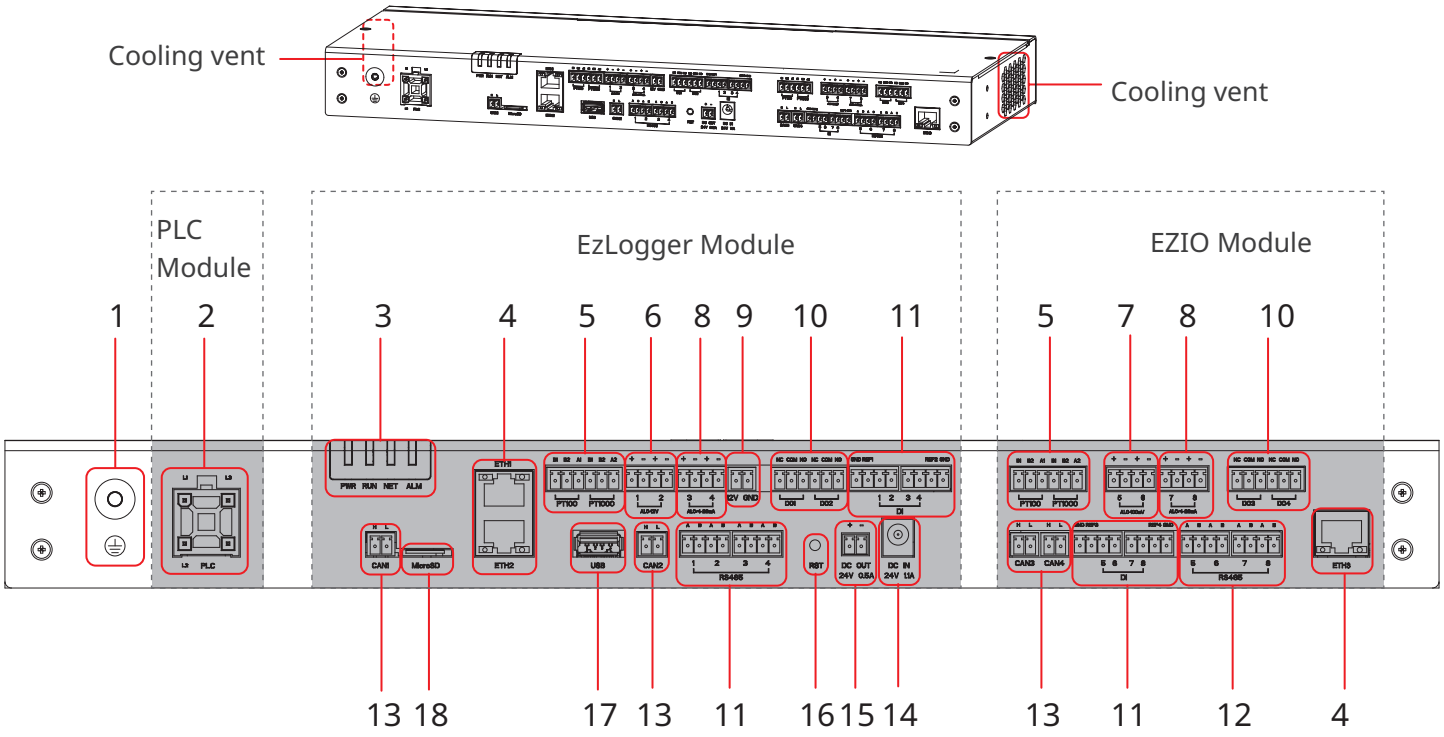


- A single RS485 communication channel in EzLogger3000U can support a maximum of 20 inverters' connections.
- A single PLC communication channel in EzLogger3000U can support a maximum of 60 inverters' connections.
- An external protection device like breaker or surge protection module is recommended when PLC communication is applied. Recommended specifications:
  - Surge protection module: 1000VAC/20KA
  - Breaker: 1000VAC/32A

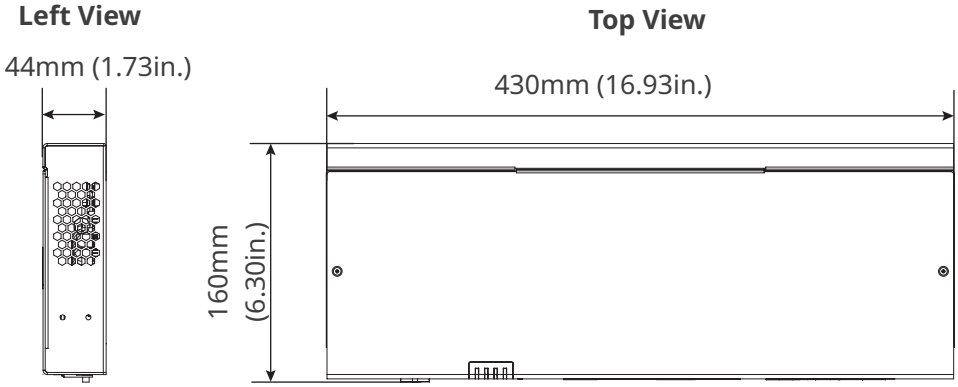
Networking of Multiple EzLoggers



3.3 Parts and Dimension



No.	Silkscreen	Description
1	⏚	Grounding point
2	PLC	Port connected for PLC communication
3	Indicator	Indicate the equipment's working status.
4	ETH1~ ETH3	Port connected with the Ethernet cable. ETH3 is reserved.
5	PT100 PT1000	Port connected with the thermo sensor.
6	AI_0-12V 1-2	AI signal input port: 0-12V
7	AI_0-100mV 5-6	AI signal input port: 0-100mV
8	AI_0/4-20mA 3-4/7-8	AI signal input port: 4-20mA
9	12V GND	12V power output port
10	DO 1~ DO 4	DO signal output port
11	DI 1~ DI 8	DI signal input port, to connect to Passive and Active contact signal.
12	RS485 1~ RS485 8	RS485 communication port
13	CAN1~ CAN4	CAN communication port
14	DC IN 24V 1.1A	24V DC power input port
15	DC OUT 24V 0.5A	24V DC power output port
16	RST	Reset button. Long press 3-10S: EzLogger reboots and restores factory default network settings; short press 1-3S: EzLogger reboots
17	USB	U disk connection port for system software version update
18	MicroSD	MicroSD card interface to store EzLogger operation log, operation log and maintenance log information

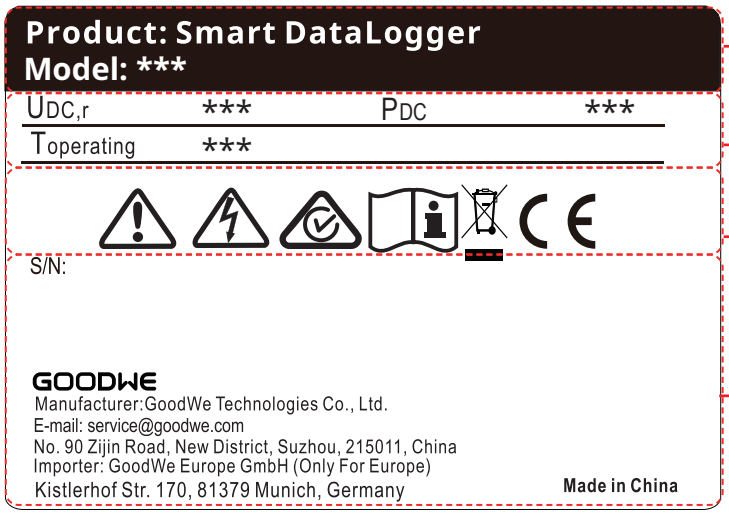


3.4 Indicators

Silkscreen	Status	Description
PWR		Steady green: The device is powered on.
		Green off: The device power supply is abnormal.
RUN		Steady green/Green off: The device fails to work.
		Slow blinking green: The device is working properly.
NET		Steady green: Communication between the device and the server is normal.
		Fast blinking green: Communication between the device and the router is normal, but communication between the device and the server fails.
		Slow blinking green: Communication between the device and the router fails.
ALM		Steady red: All the connected inverters are in fault status.
		Red off: At least one inverter in the system is working properly.

3.5 Nameplate

The nameplate is for reference only.



4 Check and Storage

4.1 Check before Receiving

Check the following items before receiving the product.

1. Check the outer packing box for damage, such as holes, cracks, deformation, and others signs of equipment damage. Do not unpack the package and contact the supplier as soon as possible if any damage is found.
2. Check the product model. If the product model is not what you requested, do not unpack the product and contact the supplier.
3. Check the deliverables for correct model, complete contents, and intact appearance. Contact the supplier as soon as possible if any damage is found.

4.2 Storage

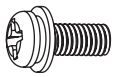
If the equipment is not to be installed or used immediately, please ensure that the storage environment meets the following requirements:

1. Do not unpack the outer package or throw the desiccant away.
2. Store the equipment in a clean place. Make sure the temperature and humidity are appropriate and no condensation.
3. If the equipment has been long term stored, it should be checked by professionals before being put into use.

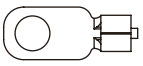
4.3 Deliverables

NOTICE
Use the delivered terminals and screws. The manufacturer shall not be liable for the equipment damage if other connectors or terminals are used.

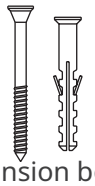
EzLogger *1



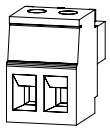
M4 screw *5



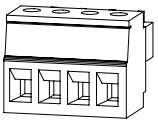
Grounding OT terminal *1



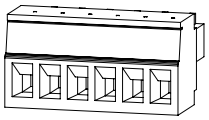
Expansion bolts *4



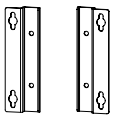
2PIN communication terminal *6



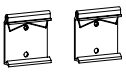
4PIN communication terminal *12



6PIN communication terminal *4

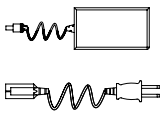


Mounting ear *2



Rail clamp *2

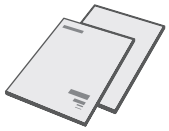
Rail *1



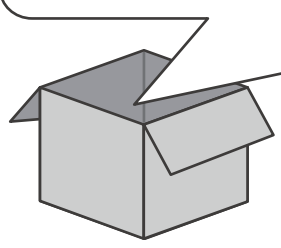
Power adapter *1

PLC communication terminal *1

M3 screw *4



Document *1



5 Installation

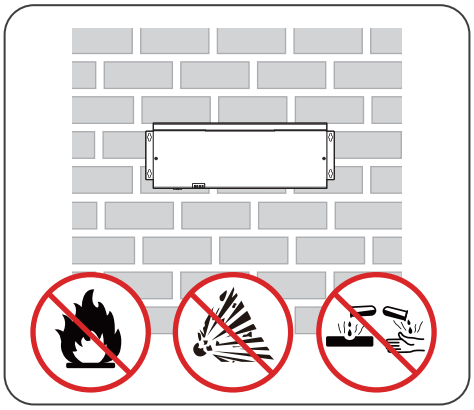
5.1 Installation Requirements

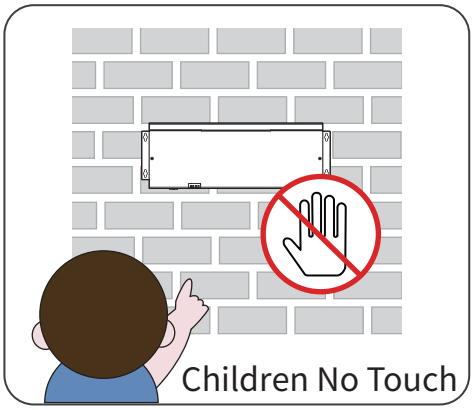
Installation Environment Requirements

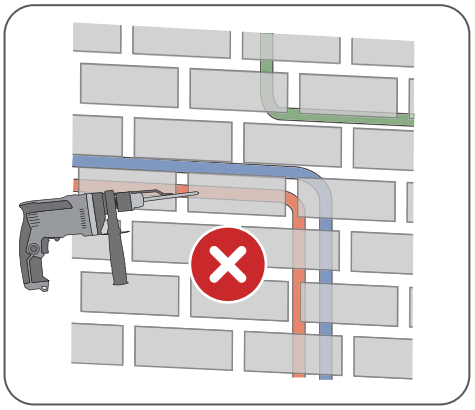
1. Do not install the equipment in a place near flammable, explosive, or corrosive materials.
2. Install the equipment on a surface that is solid enough to bear its weight.
3. The place to install the equipment shall be well-ventilated for heat radiation and large enough for operations.
4. The equipment with a high ingress protection rating can be installed outdoors.The temperature and humidity at the installation site should be within the appropriate range.
5. Do not install the equipment in a place that is easy to touch, especially within children's reach.
6. Install the equipment at a height that is convenient for operation and maintenance, electrical connections, and checking indicators and labels.
7. Install the equipment away from electromagnetic interference.

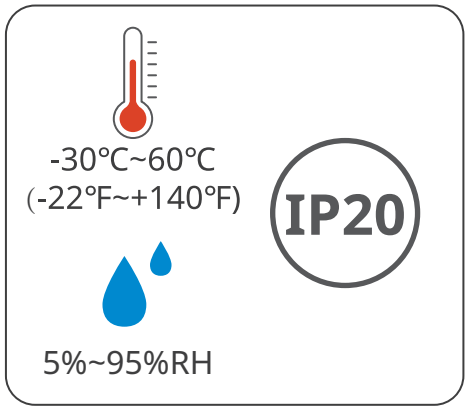
Mounting Support Requirements

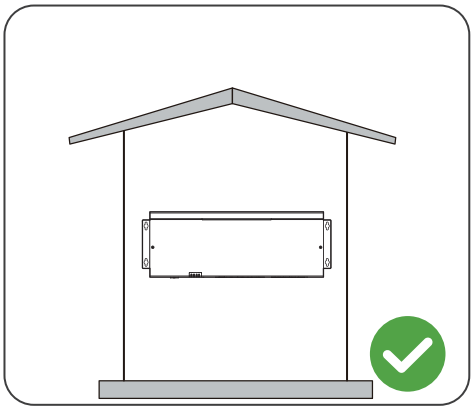
- The mounting support shall be nonflammable and fireproof.
- Install the equipment on a surface that is solid enough to bear its weight.

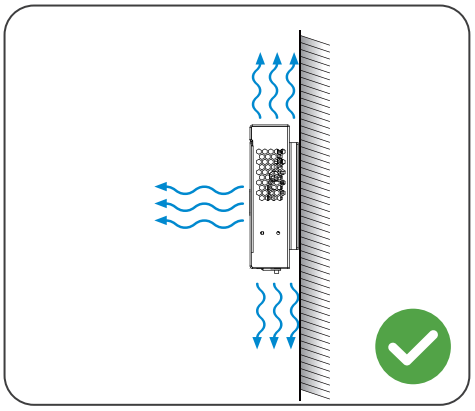


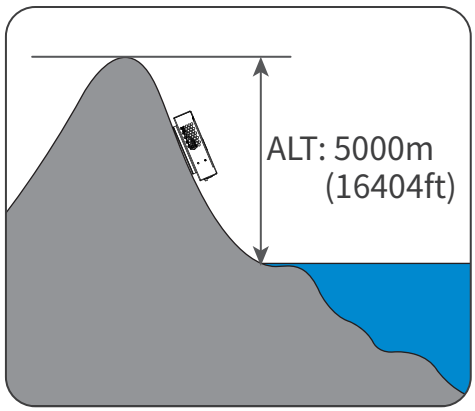










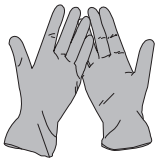


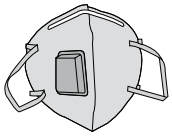
Installation Tool Requirements

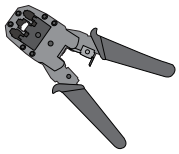
The following tools are recommended when installing the equipment. Use other auxiliary tools on site if necessary.


Goggles


Safety shoes

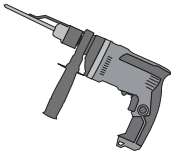

Safety gloves

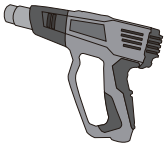

Dust mask

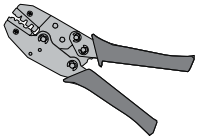

RJ45 crimping tool


Diagonal pliers


Wire stripper

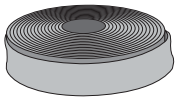

Hammer drill


Heat gun

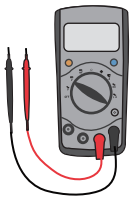

Crimping tool


Marker

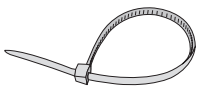

Level

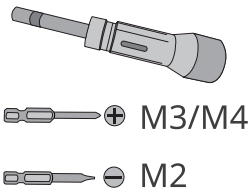

Heat shrink tube


Rubber hammer


Multimeter


Vacuum cleaner


Cable tie



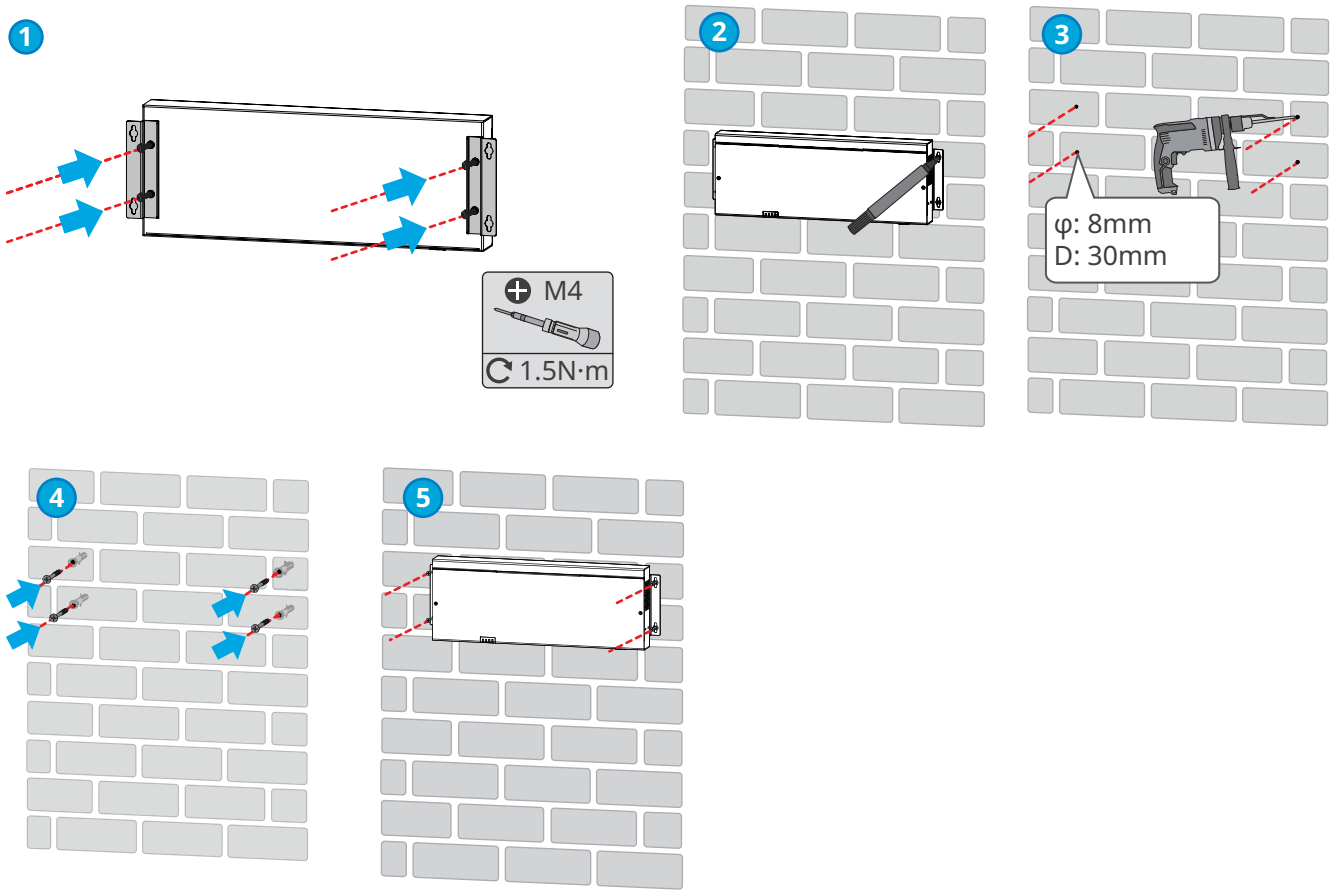
Torque wrench

5.2 EzLogger Installation

5.2.1 Wall-Mounting

NOTICE
• Avoid the water pipes and cables buried in the wall when drilling holes. • Wear goggles and a dust mask to prevent the dust from being inhaled or contacting eyes when drilling holes.

Step 1 Install the mounting plate on EzLogger with M4 screws.
Step 2 Put the EzLogger on the wall horizontally and mark positions for drilling holes.
Step 3 Drill holes to a depth of 30mm with the hammer drill. The diameter of the drill bit should be 8mm. Install the exposition bolts.
Step 4 Tighten the expansion bolts.



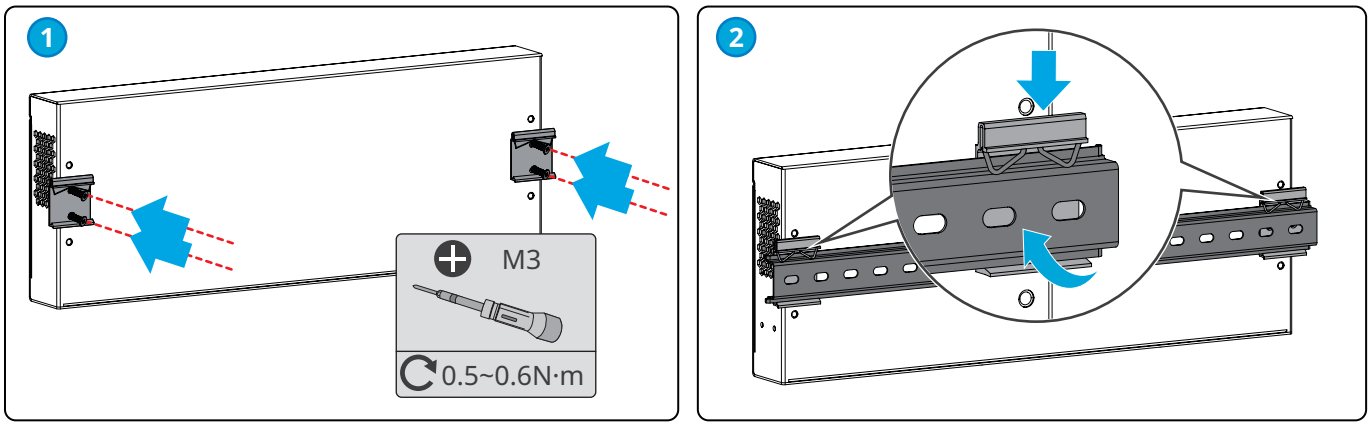
5.2.2 Rail-Mounting

NOTICE

- Install the mounting plate of the rail on the EzLogger for rail-mounting.
- The rail shall be installed on a sturdy and stable support.

Step 1 Install the mounting plate on EzLogger with M3 screws.

Step 2 Install the EzLogger onto the rail.



5.2.3 Table-Mounting

The EzLogger supports desktop installation.

NOTICE

- Install the EzLogger on a flat desktop to prevent it from sliding and getting damaged.
- Do not place the EzLogger in locations where cables can be easily accessed, as this may result in signal interruption.

6 Electrical Connection

6.1 Safety Precaution

⚠ DANGER

- Before wiring, disconnect all upstream switches of the EzLogger to ensure it is not powered on. Do not work with power on. Otherwise, an electric shock may occur.
- All operations, cables and parts specification during the electrical connection shall be in compliance with local laws and regulations.
- If the tension is too large, the cable may be poorly connected. Reserve a certain length of the cable before connecting it to the wiring port of the EzLogger.

NOTICE

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

No.	Cable	Silkscreen	Specification
1	PE cable	⏚	• Outdoor copper cable • Conductor cross-sectional area: 4mm²-6mm² (12AWG-10AWG)
2	DC output cable (12V/24V)	DC OUT 24V 0.5A / 12V GND	• Armoured copper cable • Conductor cross-sectional area: 0.2mm²-1.5mm² (24AWG-16AWG)
3	DO signal cable	DO 1-4	
4	DI signal cable	DI 1-8	
5	AI signal cable	AI_0-12V AI_0/4-20mA AI_0-100mV	
6	PT signal cable	PT100 PT1000	
7	RS485 signal cable	RS485 1-8	• Outdoor shielded twisted pair. • Conductor cross-sectional area: 0.2mm²-1.5mm² (24AWG-16AWG)
8	CAN signal cable	CAN 1-4	
9	Ethernet cable	ETH 1-3	• CAT 5E or higher specifications • Shielded RJ45 connectors
10	Three-phase AC cable	PLC	• Delivered with the device. • Cable length: 1500mm (59.06in.)

6.2 Connecting the PE Cable

⚠ WARNING

- Connect the grounding points of the equipment nearer.
- Before operation, make sure the equipment is reliably grounded.
- To improve the corrosion resistance of the terminal, it is recommended to apply silica gel or paint on the grounding terminal after installing the PE cable.

NOTICE

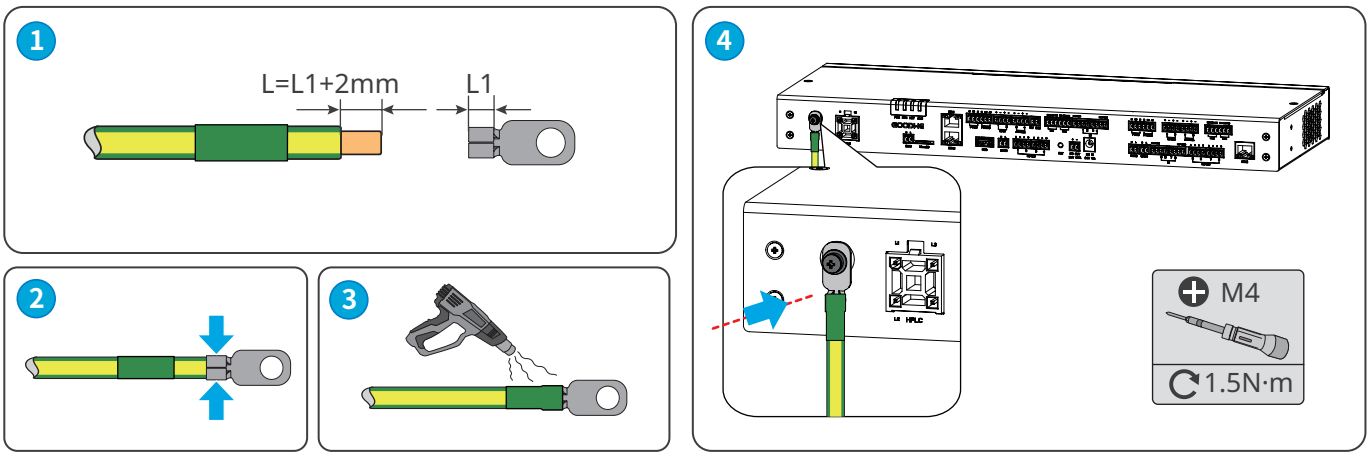
- Use the OT grounding terminals and screws delivered.
- Prepare the PE cable.

Step 1 Strip an appropriate length of insulation from the cable.

Step 2 Crimp the cables to the grounding OT terminals.

Step 3 Wrap the crimping area with insulation tube.

Step 4 Secure the PE cable to the grounding point of the EzLogger with the M4 screw.



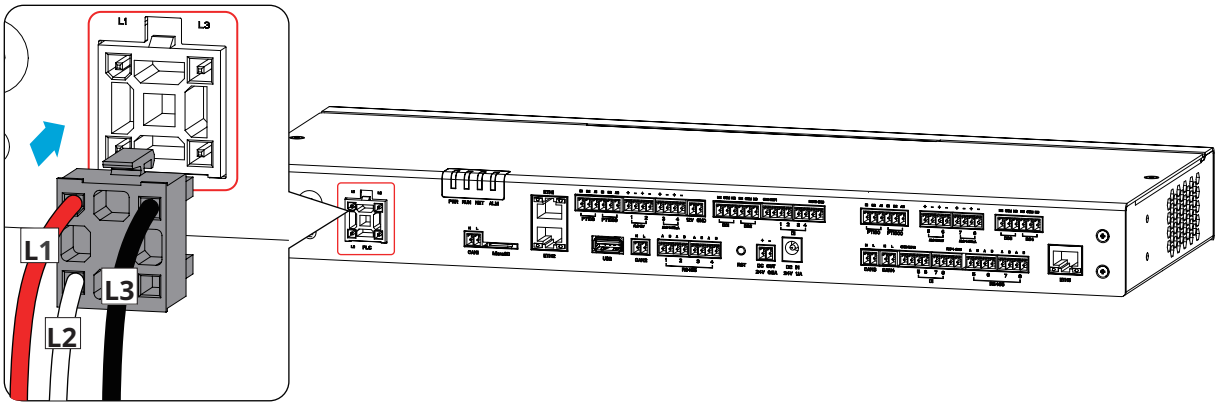
6.3 (Optional) Connecting the Three-Phase AC Cable

⚠ WARNING

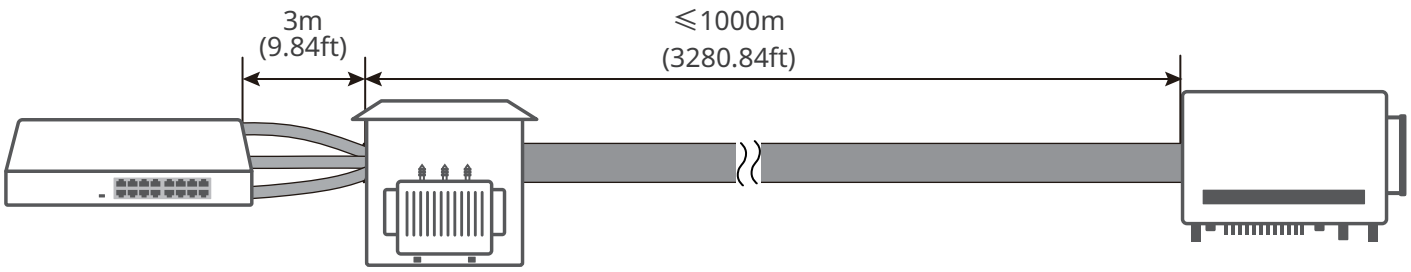
- When the inverter communicates with the EzLogger via PLC, connect the three-phase AC cable to the PLC port on the EzLogger.
- Ensure that the upstream switches are turned off before connecting the three-phase AC cables.

NOTICE

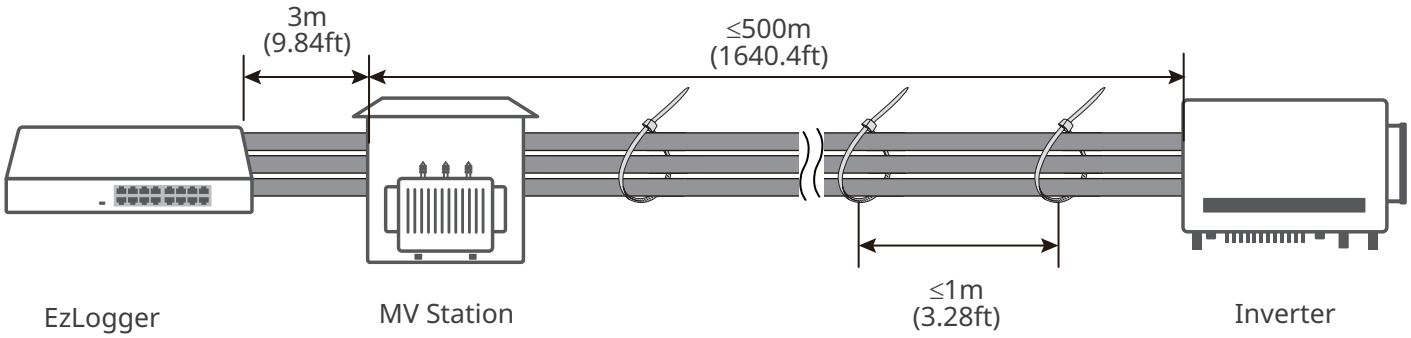
- Multi-core cables are recommended for PLC communication.The maximum communication distance between the inverter and MV station is 600m.
- When single-core cables are used, the three phase cables must be bound 1m apart. The maximum communication distance between the inverter and MV station is 500m.
- The sampling cable between the EzLogger and the busbar of the MV station should not exceed 3 meters.



Multi-core cable



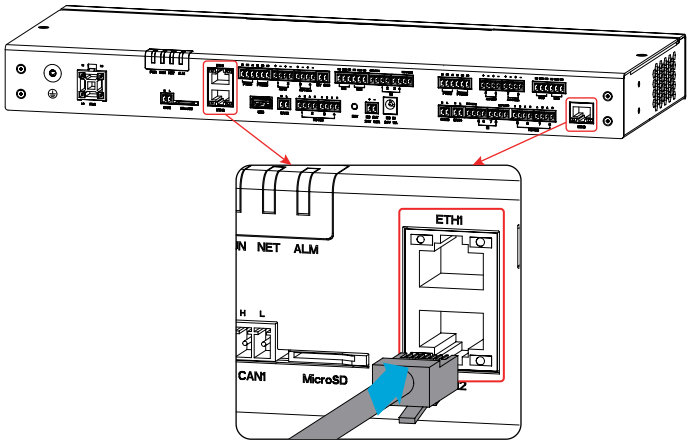
Single-core cable

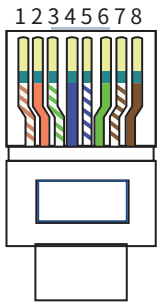


6.4 Connecting the Ethernet Cable

NOTICE

- ETH1 port is set to dynamic IP mode by default at the factory. It can be connected to a computer, router, switch, and other devices.
- ETH2 port is set to static IP mode by default at the factory, with the default IP address being 172.18.0.12. It can be connected to a computer for EzLogger configuration.
- The functionality of ETH3 port is reserved.
- Refer to Section **8.4.1 Setting Port Parameters** for detailed instructions to modify the IP parameters of ETH1 and ETH2 ports.





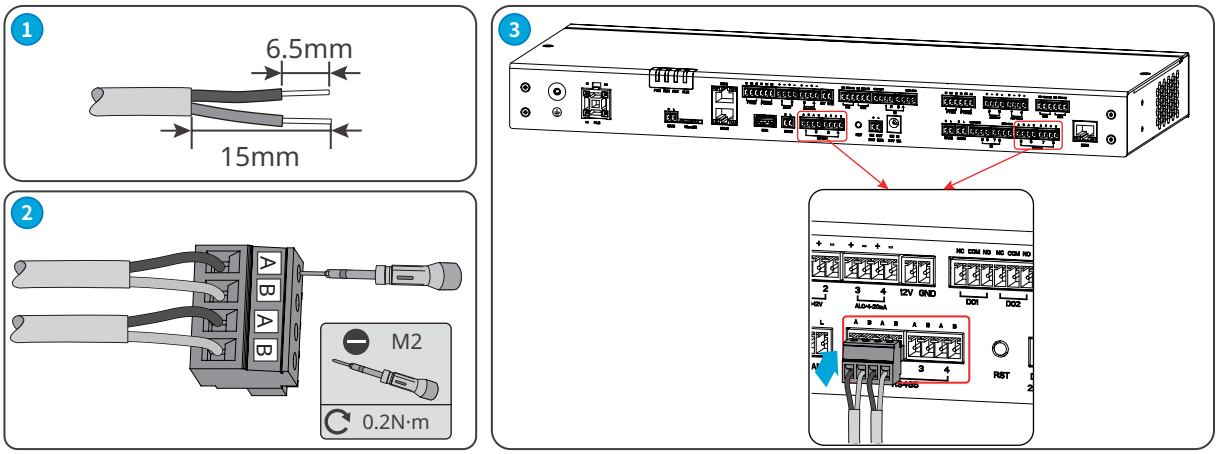
No.	Color
1	White & Orange
2	Orange
3	White & Green
4	Blue
5	White & Blue
6	Green
7	White & Brown
8	Brown

6.5 Connecting the RS485 Signal Cable

NOTICE

- The EzLogger can be connected to RS485 communication devices such as inverters, smart meters, and environmental monitoring instruments via its RS485 port.
- Make sure to connect the RS485A port and the RS485B port on the EzLogger with the RS485A signal and the RS485B signal respectively of the other communication device.

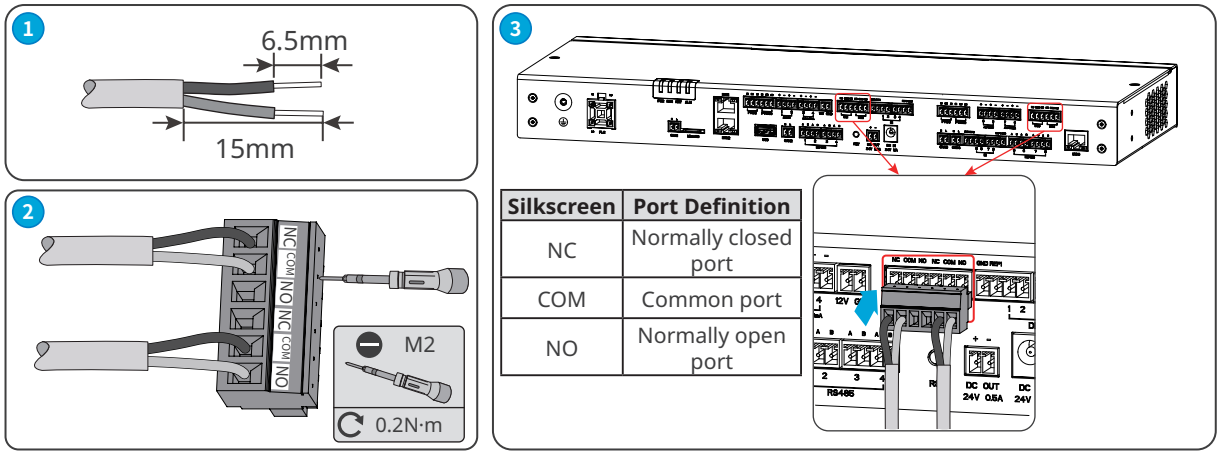
Silkscreen			Port Definition	Silkscreen			Port Definition
RS485 (EzLogger Module)	1	A	RS485_A1	RS485 (EZIO Module)	5	A	RS485_A5
		B	RS485_B1			B	RS485_B5
	2	A	RS485_A2		6	A	RS485_A6
		B	RS485_B2			B	RS485_B6
	3	A	RS485_A3		7	A	RS485_A7
		B	RS485_B3			B	RS485_B7
	4	A	RS485_A4		8	A	RS485_A8
		B	RS485_B4			B	RS485_B8



6.6 Connecting the DO Signal Cable

NOTICE

- The EzLogger DO port supports to connect with passive contact for signal output.
- The DO port of EzLogger supports a maximum signal voltage of 30V/1A. The NC/COM terminal is the normally closed terminal, and the NO/COM terminal is the normally open terminal.
- It is recommended to keep the signal transmission distance within 10 meters.



Silkscreen	Port Definition
NC	Normally closed port
COM	Common port
NO	Normally open port

6.7 Connecting the DI Signal Cable

NOTICE

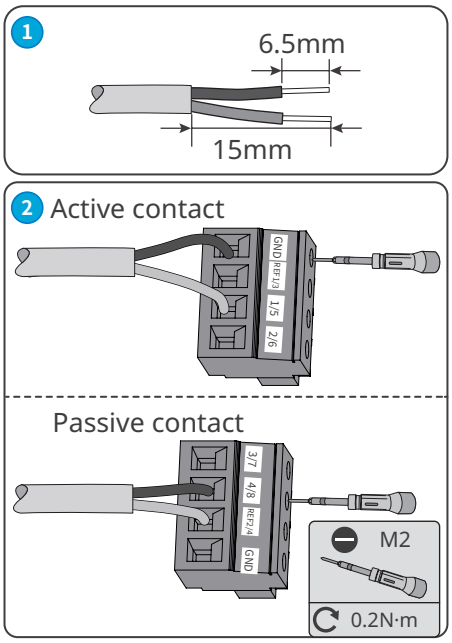
- The EzLogger supports to connect with passive contact and active contact for signal output.It is recommended to keep the DI signal cable transmission distance within 10 meters.
- It is recommended to keep the DI signal cable transmission distance within 10 meters.

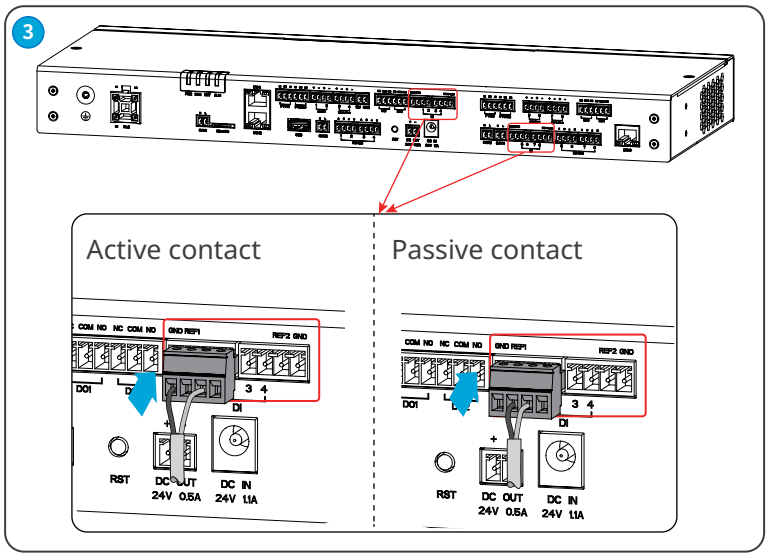
Passive contact

Function	Silkscreen	
DI1	REF1	1
DI2		2
DI3	REF2	3
DI4		4
DI5	REF3	5
DI6		6
DI7	REF4	7
DI8		8

Active contact

Function	Silkscreen	
DI1	GND	1
DI2		2
DI3	GND	3
DI4		4
DI5	GND	5
DI6		6
DI7	GND	7
DI8		8



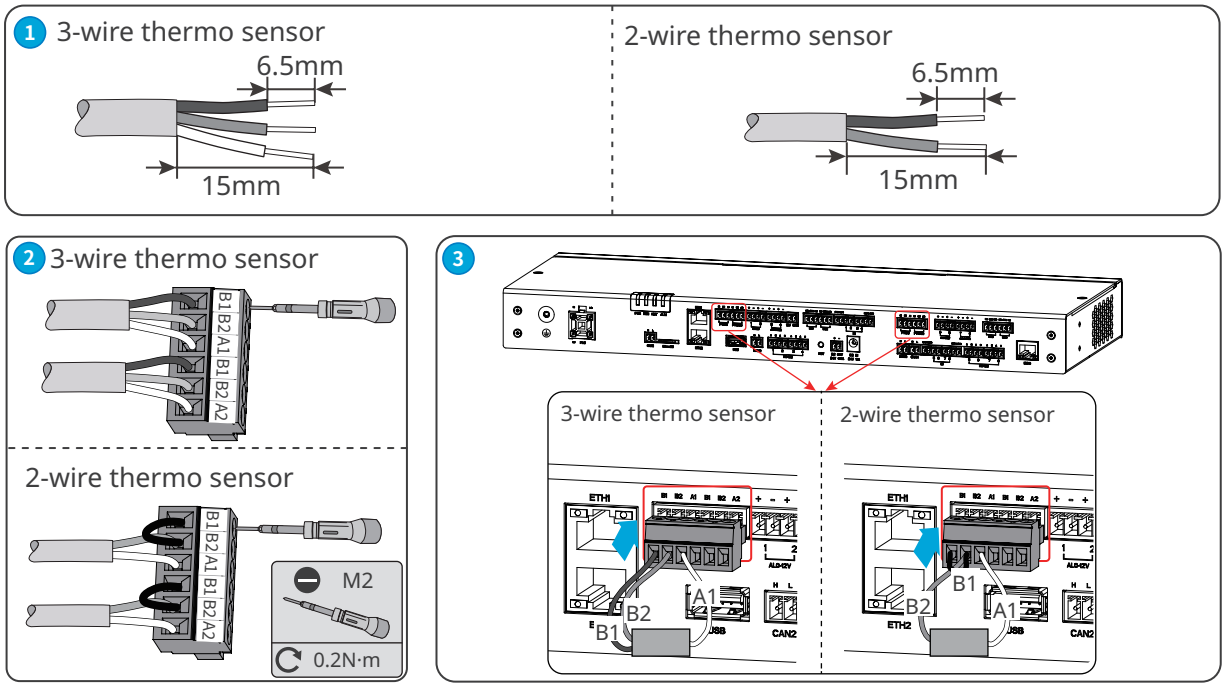


6.8 Connecting the PT Signal Cable

NOTICE

- The EzLogger can be connected with 2-wire or 3-wire PT100/PT1000 thermo sensors.
- When connecting a 2-wire PT100/PT1000 thermo sensor, it is necessary to short-circuit the B1 and B2 ports.

Silkscreen		Port Definition	Silkscreen		Port Definition
PT100	B1	PT100_B1	PT1000	B1	PT1000_B1
	B2	PT100_B2		B2	PT1000_B2
	A1	PT100_A		A2	PT1000_A



6.9 Installing the USB Flash Drive

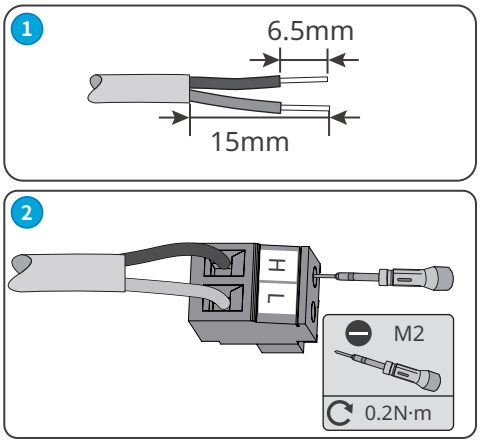
NOTICE

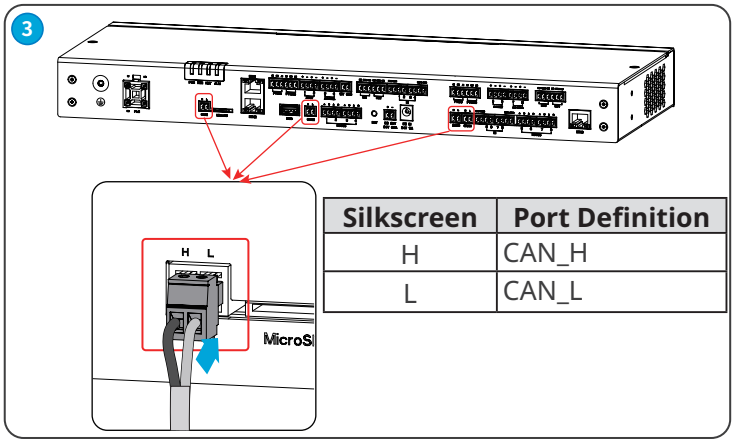
- Install the USB flash drive into the USB port for software upgrading.
- Contact the after-sales service center to obtain the software upgrading package.
- Prepare a 3.0 interface USB flash drive (FAT32).

6.10 Connecting the CAN Signal Cable

NOTICE

Connect with the relevant devices supporting CAN signal communication.



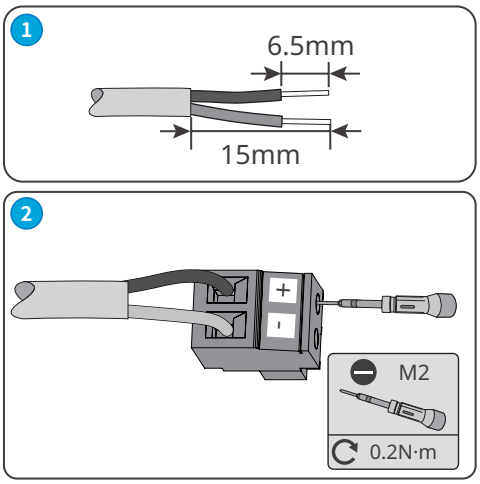


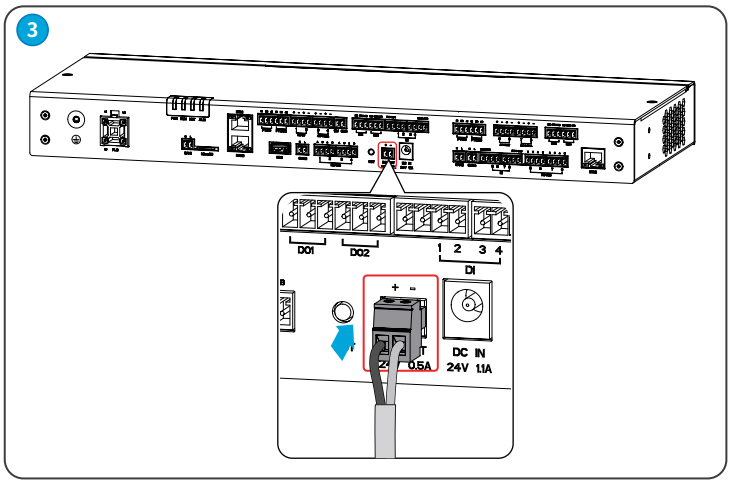
Silkscreen	Port Definition
H	CAN_H
L	CAN_L

6.11 Connecting the 24V DC Output Cable

NOTICE

The EzLogger owns a 24V, 0.5A DC output port, which can provide power to other devices.

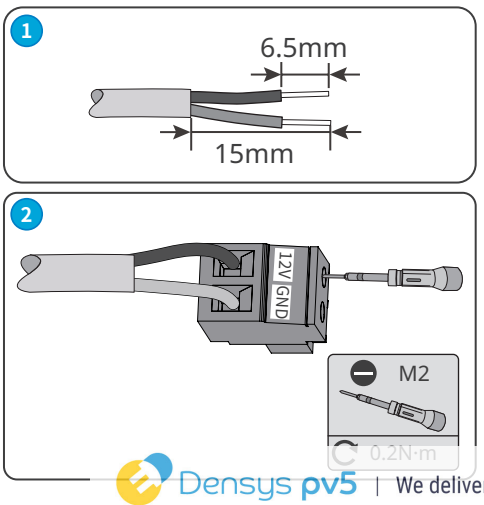


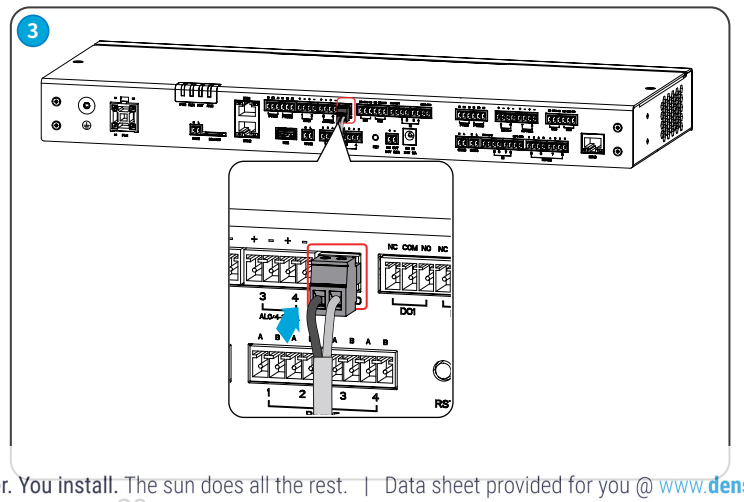


6.12 Connecting the 12V DC Output Cable

NOTICE

The EzLogger owns a 12V DC output port to provide power to other devices.

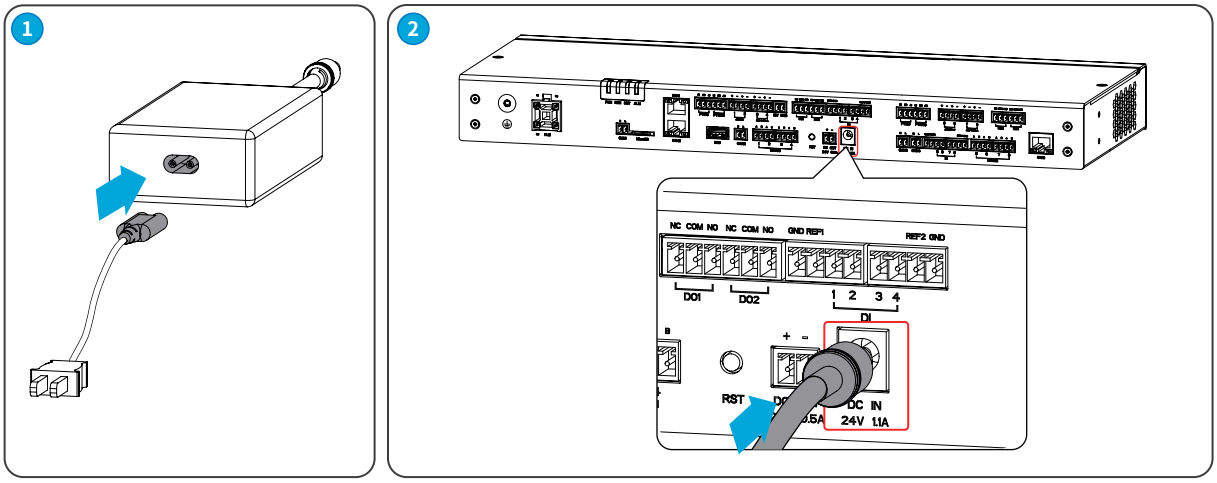




6.13 Connecting the Power Adapter

NOTICE

- Connect the power adapter included in the package to the EzLogger's DC input port for power supplying to the EzLogger.
- Power adapter specifications: Input: AC 100V~240V, 50Hz/60Hz; Output: DC 24V, 1.5A.

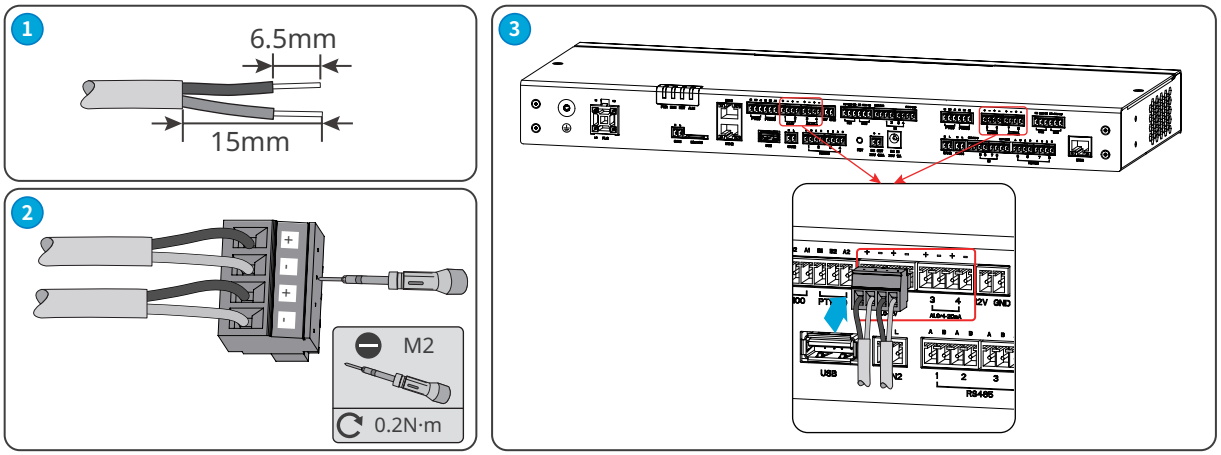


6.14 Connecting the AI Cable

NOTICE

The EzLogger can receive analog signal over AI ports.

Silkscreen		Port Definition
AI_0-12V	+	Supports 0-12 V input voltage.
	-	
AI_0/4-20mA	+	Supports 0-20 mA or 4-20 mA input current.
	-	
AI_0-100mV	+	Supports 0-100mV input voltage.
	-	

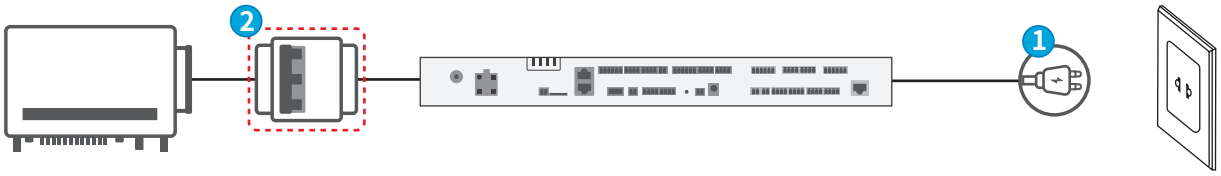


7 Equipment Commissioning

7.1 Check before Power On

No.	Checking Item
1	The EzLogger should be securely installed in a location that is easily accessible for operation and maintenance, and the installation environment should be clean and tidy.
2	Ensure that the protective ground wire, DC input wire, DC output wire, and communication wire are connected correctly and securely.
3	Cable ties are intact, routed properly and evenly.
4	The input signal and input power parameters of the EzLogger should be within the operating range of the equipment.

7.2 Power On



Step 1 Insert the power adapter into the AC socket and turn on the switch on the AC socket side.
Step 2 (Optional) When using PLC signal communication, turn off the upstream switch of the three-phase AC input port.

8 System Commissioning

8.1 Indicators and Button

LED Indicators

Silkscreen	Status	Description
PWR		Steady green: The device is powered on.
		Green off: The device power supply is abnormal.
RUN		Steady green/Green off: The device fails to work.
		Slow blinking green: The device is working properly.
NET		Steady green: Communication between the device and the server is normal.
		Fast blinking green: Communication between the device and the router is normal, but communication between the device and the server fails.
		Slow blinking green: Communication between the device and the router fails.
ALM		Steady red: All the connected inverters are in fault status.
		Red off: At least one inverter in the system is working properly.

Button Functionality

RST Button	Definition
Long press 3-10S	EzLogger reboots and restores factory default network settings and login password.
Press 1-3S	EzLogger restarts.

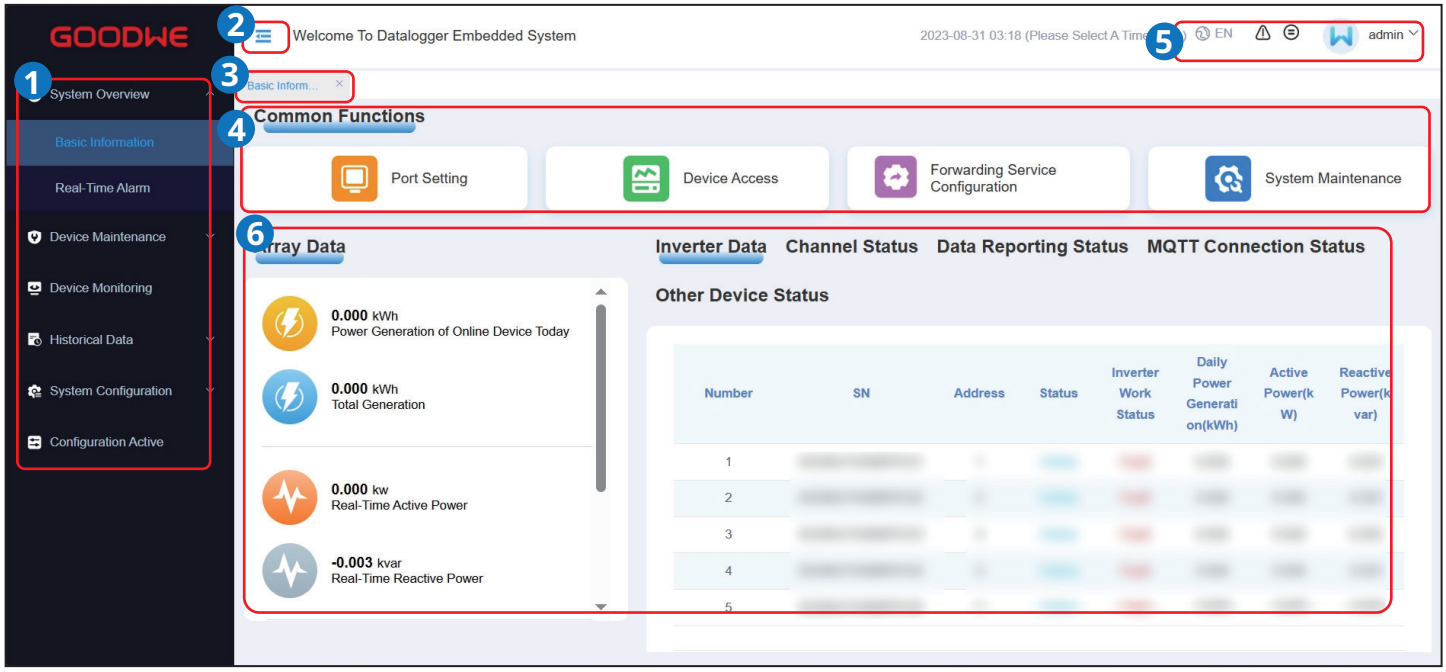
8.2 Introduction of WEB

EzLogger supports equipment-related parameters setting, equipment operation information and error information viewing through the WEB interface, to get to know the system status timely.

⚠WARNING

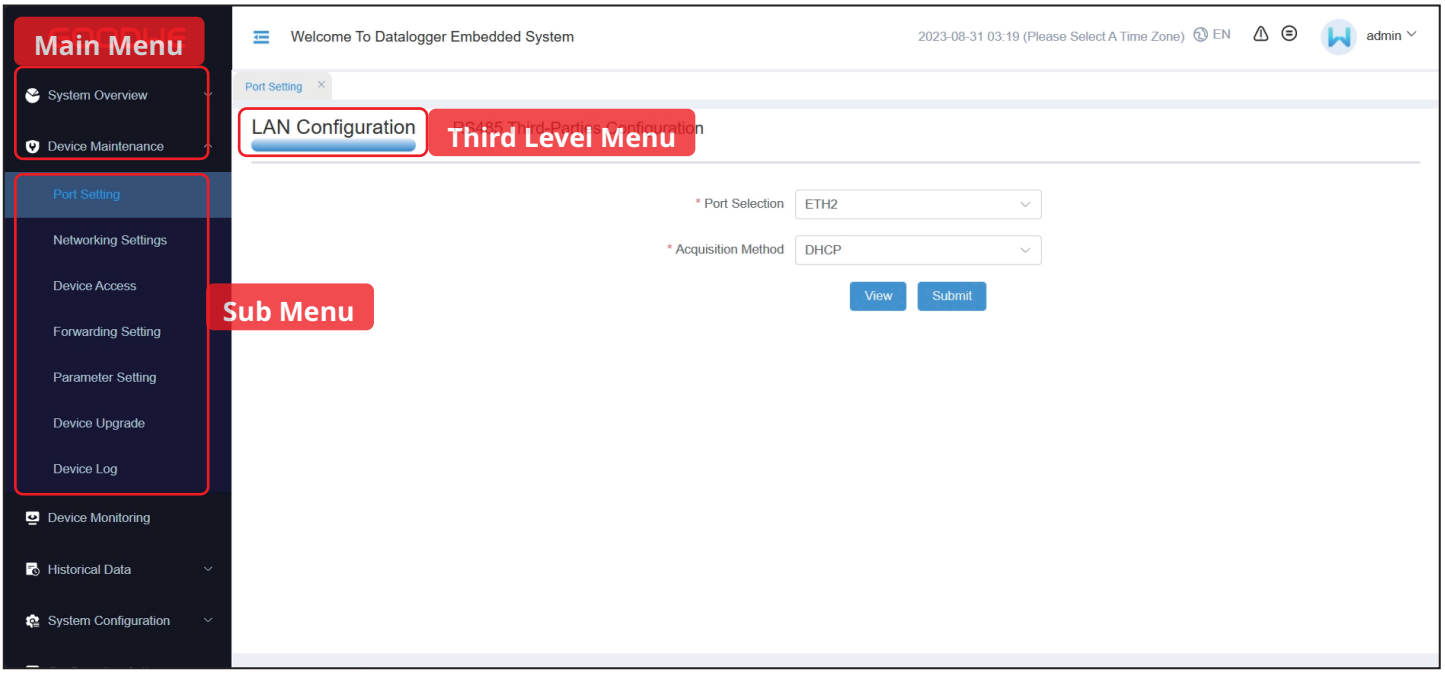
- WEB software version shown in this document is V1.3.8. The screen shots are for reference only. The actual display may differ.
- The name, range, and default value of the parameters are subject to change or adjust. The actual display prevails
- When issuing reset, shutdown and upgrade commands to the inverter, it may happen the inverter not to be connected to the grid and affect the power generation.
- The grid parameters, protection parameters, characteristics parameters and power adjust parameters of the inverter shall be set by professionals. Improper settings may cause the inverter not to be connected to the grid. Wrong settings of power adjust parameters may cause the inverter connected to the grid improperly, thus affecting the power generation.
- To prevent the generating capacity from being influenced by wrong settings, the grid dispatch parameters shall be set by professionals.

Layout



No.	Function Area	Description
1	Menu List	Area for the menu list. Click the Main Menu and the Sub-Menu will be displayed.
2	Menu list button	Click to hide or show the menu list.
3	Tag list	Display the opened menu list.
4	Common Functions	Display the functions often used, which is easy for operation. Able to be set in the Menu List.
5	System Status	• Select the system language. • Display the alarming information. Click it to check the real-time alarms. • Display the version of the product. • Display the log in status. Click it to log out.
6	Array Data	Display the corresponding functional items or parameter setting under each menu.

Menu on the Interface



Main Menu	Sub Menu	Third Level Menu	Description
System Over-view	Basic Information	-	• Basic function settings such as **Port Setting**, **Device Access**, **Forwarding Service Configuration**, **System Maintenance**. • Basic information checking such as **Power Generation of Online Device Today**, **Total Generation**, **Teal-time Active Power**, **Real-time Reactive Power**, **Number Of Online Devices**, **Number Of Offline Devices**, and so on.
	Real-time Alarm	-	**Total Number Of Fault Alarms**, **Fault Alarm ID**, **Fault Alarm Name**, **Device SN** and **Generation Time** are displayed. Click the **Manually Refresh** button to refresh the latest alarming list.

Main Menu	Sub Menu	Third Level Menu	Description
Device Maintenance	Port Settings	LAN Configuration	Set the wired network's parameters. Support to connect with Northbound Gateway devices via wired network.
		RS485 Third-Parties Configuration	Set RS485 parameters of the equipment. Support to connect with equipments via RS485. The baud rate of the RS485 includes 300, 1200, 2400, 9600, 19200 and 115200.
	Networking Settings	Inverter Networking	Set the inverters connected with the EzLogger, and set the Modbus address of the inverter.
	Device Access	-	Add devices.
	Forwarding Setting	IEC104	Set IEC104 parameters.
		Modbus-TCP	Set Modbus-TCP parameters.
		Email	Set Email parameters.
		SFTP	Set FTP parameters.
		Goose	Set Goose parameters.
	Parameter Setting	Datalogger	Set the port parameters, log settings, array capacity, and so on.
		Inverter	Set the parameters of the inverter such as the grid, protection, feature and power adjusting.
		MV Station	Set the parameters of the box substation remotely.
	Device Upgrade	Data Logger	Upgrade the EzLogger.
		Inverter	Upgrade the inverter.
		Other	Upgrade the firmware version of MAIN-CCO, CAN-CCO, or CAN-EZIO when HPLC is applied.
	Device Log	-	Check or export the Operation Log of the equipment.
Device Monitoring	-	Inverter	Check the inverter's parameters.
	-	Weather Station	Check the parameters of the weather station.
	-	MV Station	Check the MV station's parameters.
	-	IEC104	Check the IEC104 parameters.
Historical Data	Historical Faults And Alarms	-	Check the historical faults and alarms.
	Historical Data Export		Export historical data.
	Power Control Log	-	Check the record of power control.
System Configuration	System Maintenance	-	• Reset the EzLogger. • Restore factory settings. • Import all configuration files. • Export all configuration files.
	System Time	-	Set the way to calibrate the time: by system or manually.
	Safety Setting	-	Set the safety parameters such as the account and password, and so on.
	System Debugging		-
	Version	-	Check the version of the EzLogger.
Configuration Active	-	-	Saving the parameters.

8.3 Log In

NOTICE

Before login, ensure that the equipment meets the following requirements:
- Support Windows 7 or above version.
- Browser: Chrome 52, Firefox 58, IE9 or above are recommended.
- The computer's network port is connected to EzLogger's ETH port with a network cable.

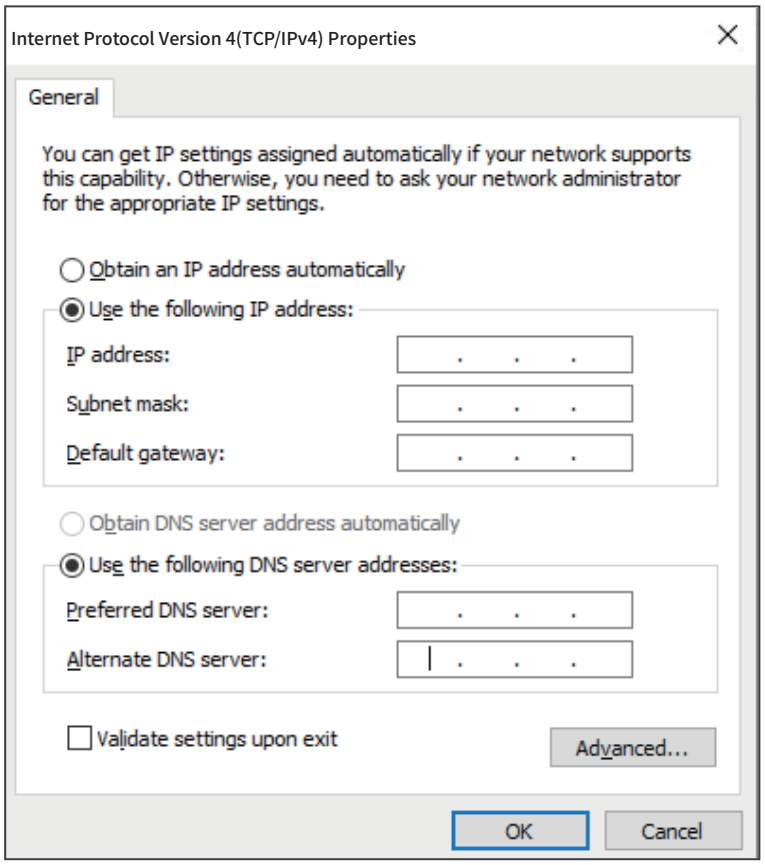
Steps

Log in to the web using a default IP address

Step 1 Connect the computer to the ETH2 port of a EzLogger using a network cable.

Step 2 Set the IP addresses of the Ezlogger and the computer in the same network segment.

No.	IP Parameter	Factory Default Value of the EzLogger	Example Value on the Computer
1	IP Address	172.18.0.12	172.18.0.10
2	Subnet Mask	255.255.255.0	255.255.255.0
3	Default Gateway	172.18.0.1	172.18.0.1



Step 3 Enter **https://XX.XX.XX.XX** or **https://XX.XX.XX.XX:443** in the address bar of the web browser and press Enter. XX.XX.XX.XX refers to the IP address of the EzLogger, and 443 is the default port of https.

Step 4 Select the language according to the actual demanding. Log in with the initial account and password. For first login, a reminder will pop up to prompt you to change the password. After setting the new password, login with the new password.

Log in to the web using a dynamic IP address

Step 1 Connect the EzLogger to a computer using a network cable.

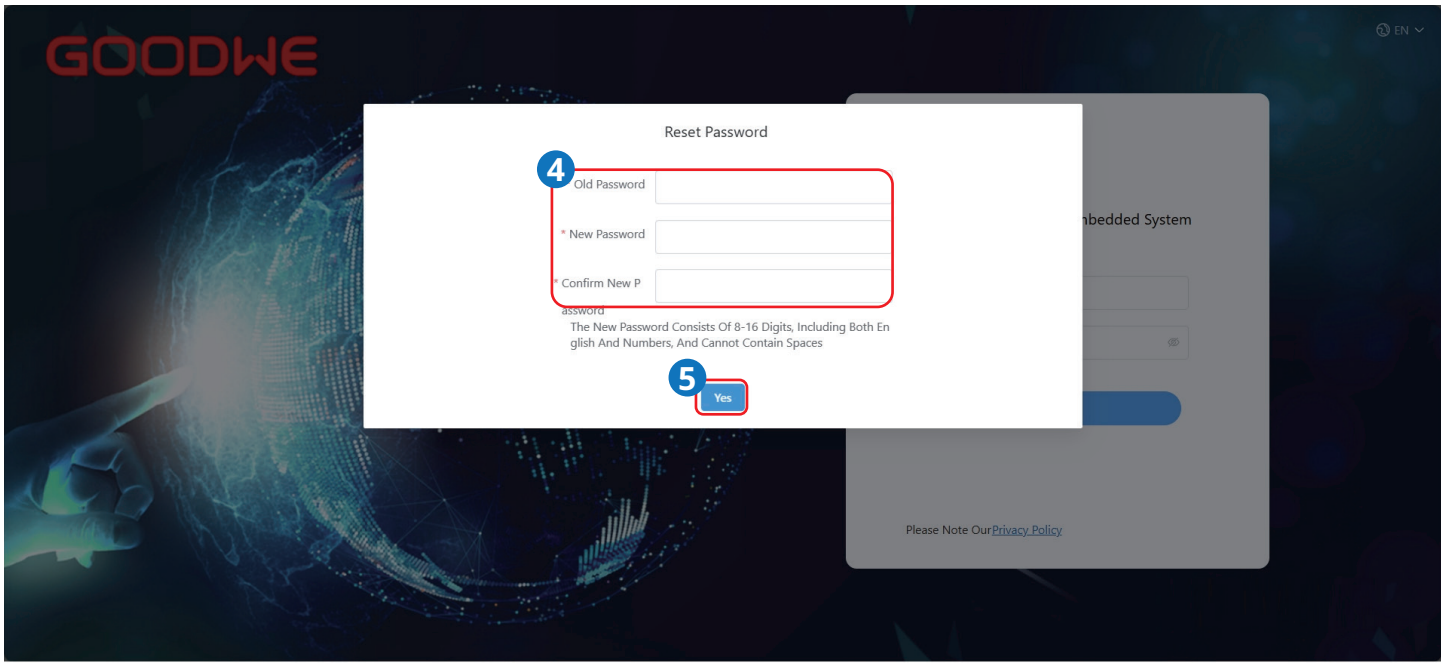
Step 2 Check the IP address assigned to the gateway on the router management page.

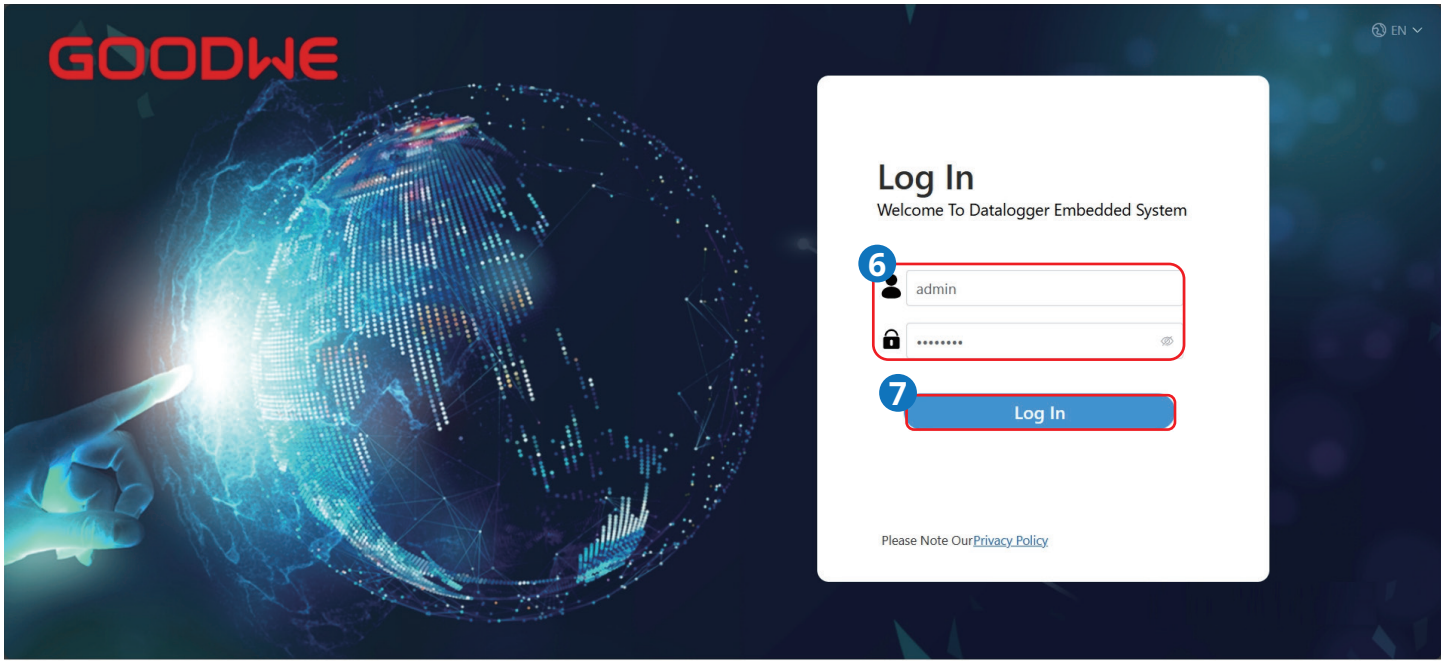
Step 3 Enter **https://XX.XX.XX.XX**, or **http://XX.XX.XX.XX:443** in the address bar of the web browser and press Enter. XX.XX.XX.XX refers to the IP address of the EzLogger and 443 is the default port setting of https.

Step 4 Select the language according to the actual demanding. Log in with the initial account and password. For first login, a reminder will pop up to prompt you to change the password. After setting the new password, login with the new password.

NOTICE

- Use the initial password to login. Change the password regularly and keep it in mind.
- Long press the RST button of the EzLogger to restore the initial password if you forgot the password.



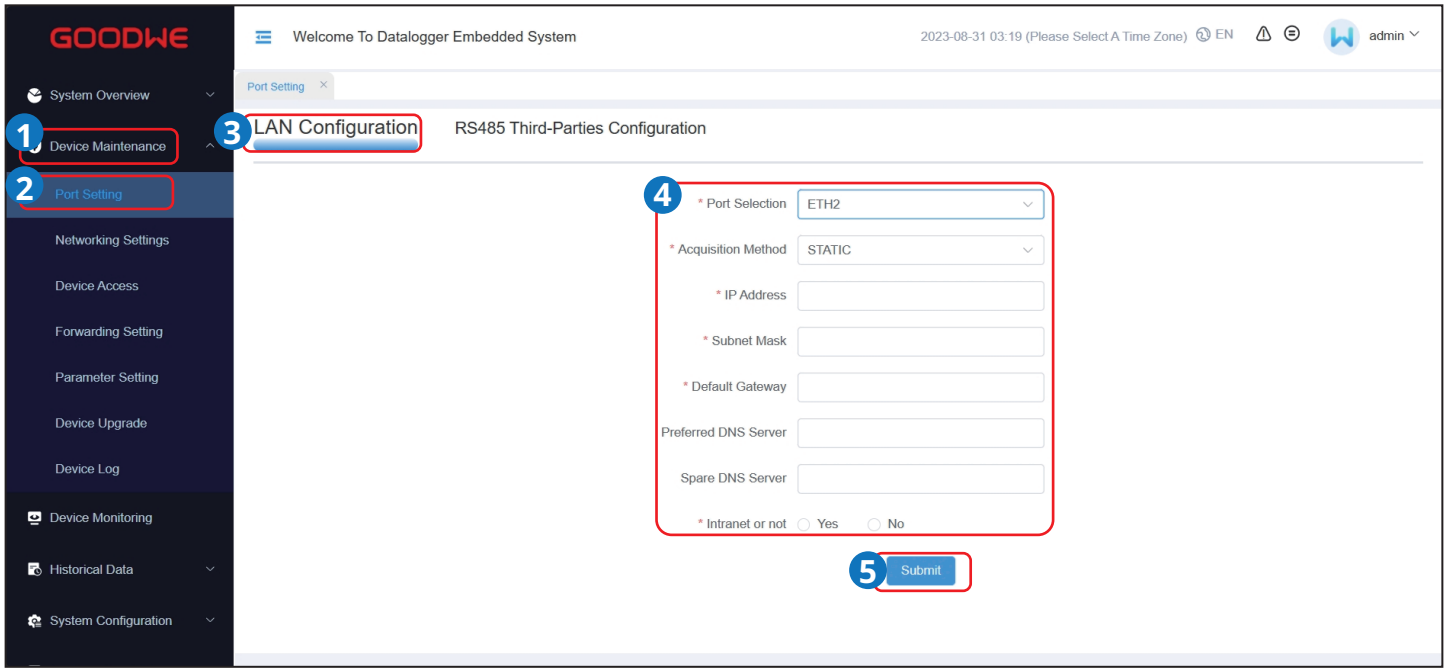

GOODWE
EN
Log In
Welcome To Datalogger Embedded System
6
admin
7
Log In
Please Note OurPrivacy Policy

8.4 Setting Parameters

8.4.1 Setting the Port Parameters

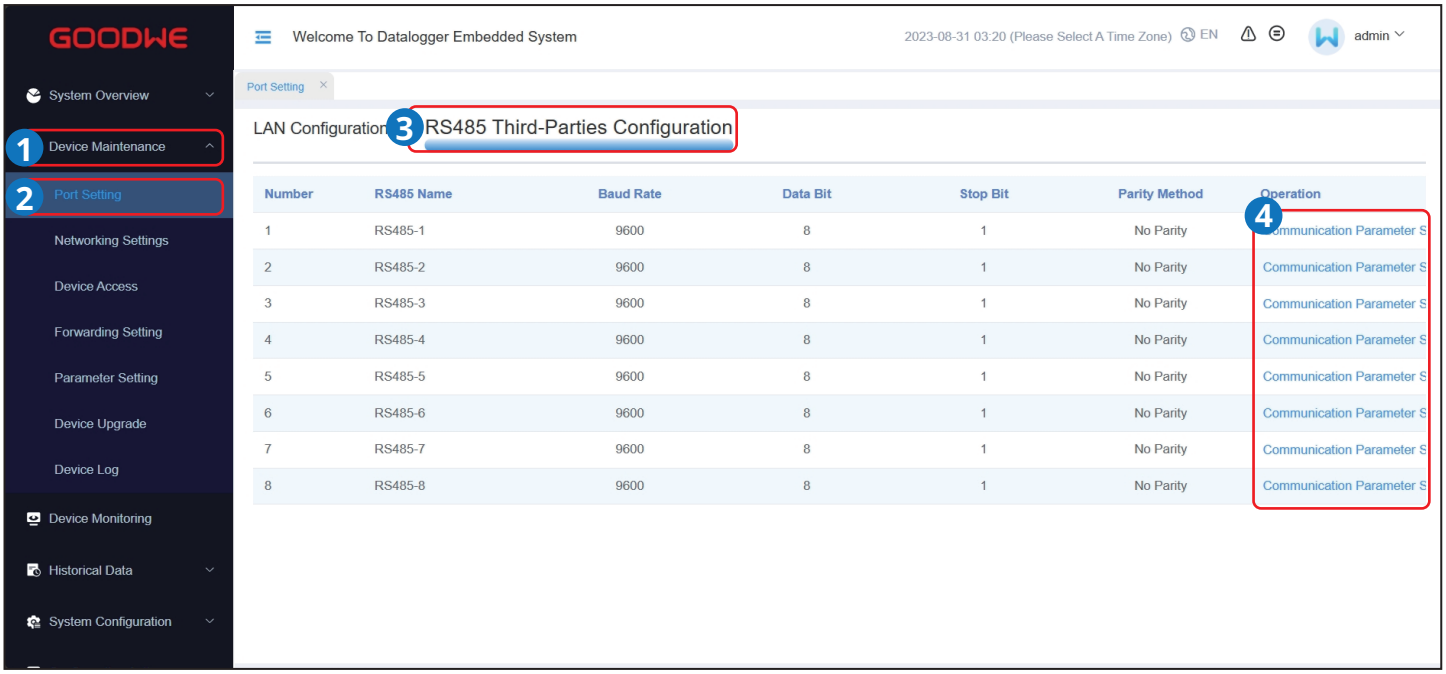
Set the related parameters, and click “Submit” to finish the setting.

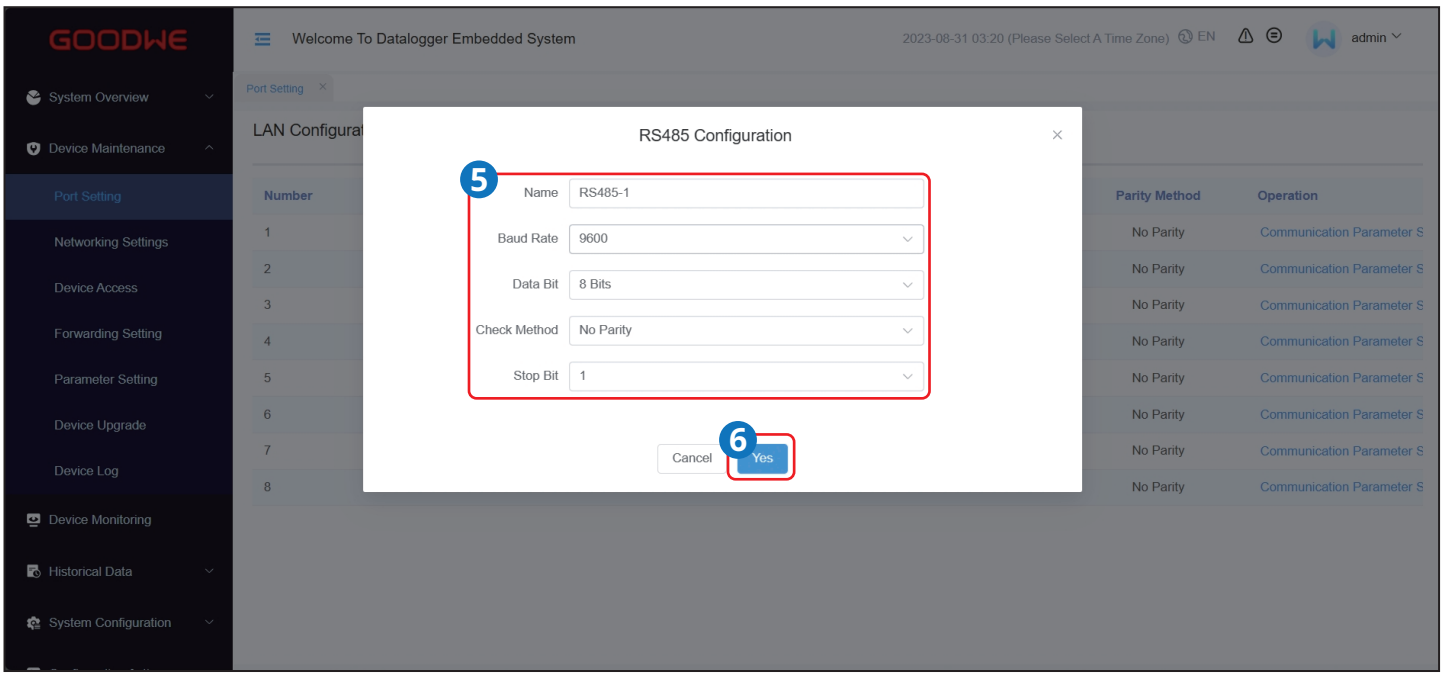
LAN Configuration



Parameter	Description
Port Selection	Select based on the actual network port connected to the EzLogger.
Acquisition Method	• Select “STATIC” and manually enter the fixed network parameters. • Select “DHCP” and the IP address is obtained and the registration is completed automatically.
IP Address	Set according to the power plant planning. If the IP address is modified, log in with the new IP address.
Subnet Mask	Set according to the actual subnet mask of the LAN which the EzLogger belongs to.
Default Gateway	Set according to the actual gateway of the LAN which the EzLogger belongs to.
Preferred DNS Server	Ignore this parameter when connecting to a LAN. In scenarios where a public network is connected (e.g., connecting to hosted cloud, Email, third-party FTP, etc., with server addresses using domain names), configure it as the IP address of the LAN’s router.
Spare DNS Server	Ignore this parameter in common situations. When the preferred DNS server fails to resolve a domain name, use the alternate DNS server.
Intranet or not	The default setting is No.

RS485





Parameter	Description
Name	Select based on the actual RS485 port the equipment connected to.
Baud Rate	Set according to the baud rate of the connected equipment. Supported values: 300, 1200, 2400, 9600, 19200, and 115200.
Data Bit	Supported values: 7 bits and 8 bits.
Check Method	Set according to the parity check method of the connected equipment. Supported values: Odd Parity, Even Parity, 1 Checksum, 0 Parity, No Parity.
Stop Bit	Set according to the stop bit of the connected equipment. Supported values: 1, 1.5, and 2.

8.4.2 Setting Network

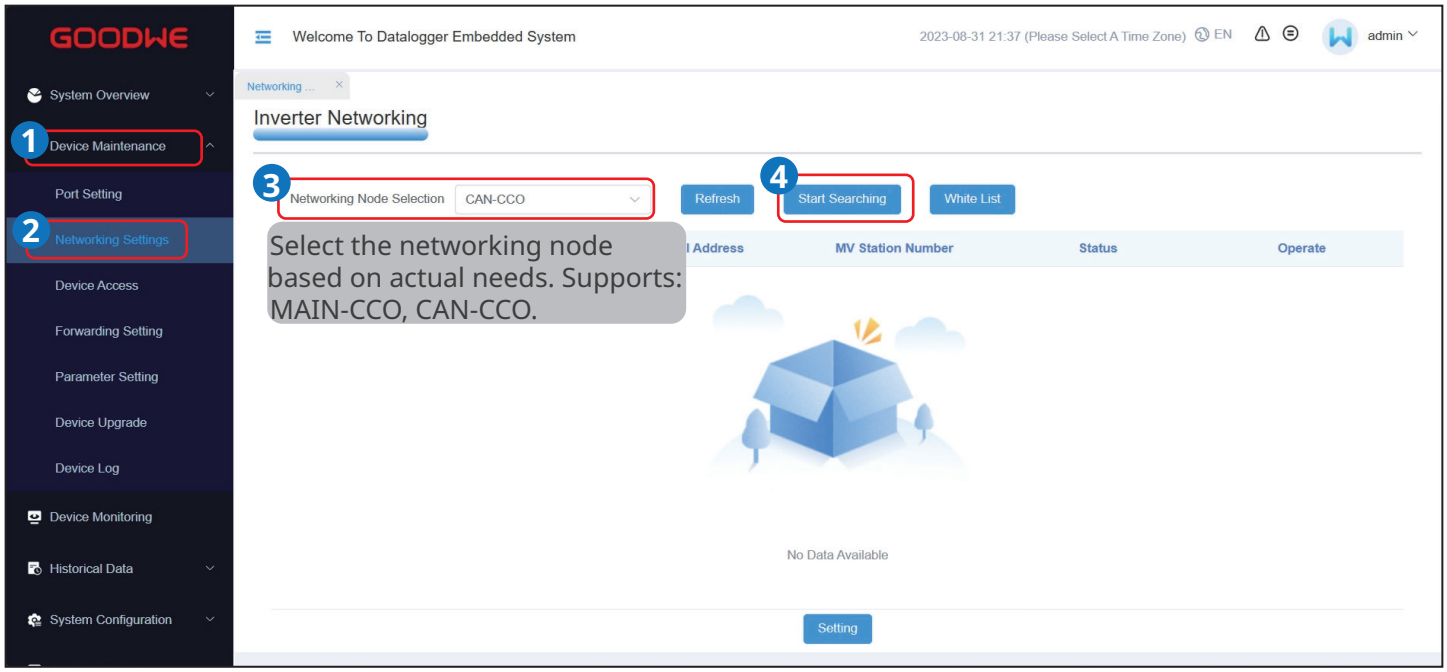
NOTICE

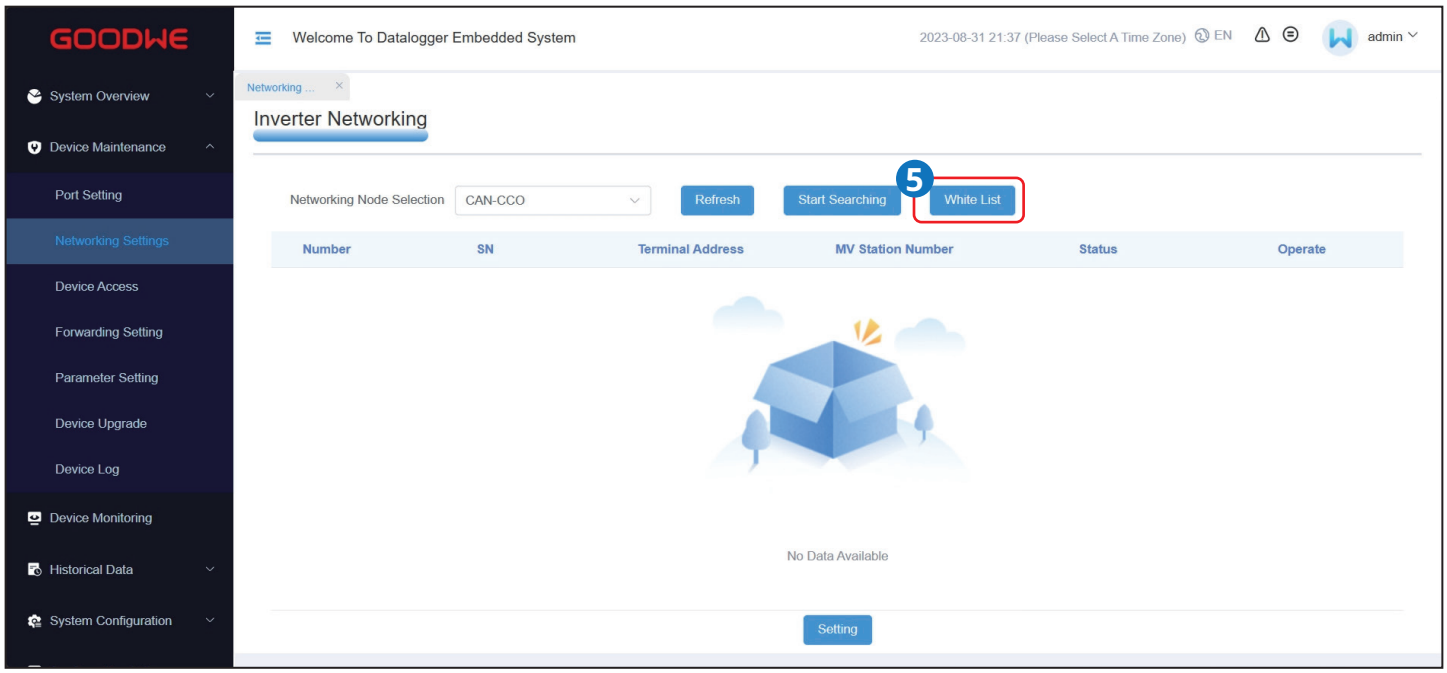
- Ensure that the working status and communication status of the inverter is normal when setting the network.
- Restart the inverter before resetting the network, otherwise the networking may fail.

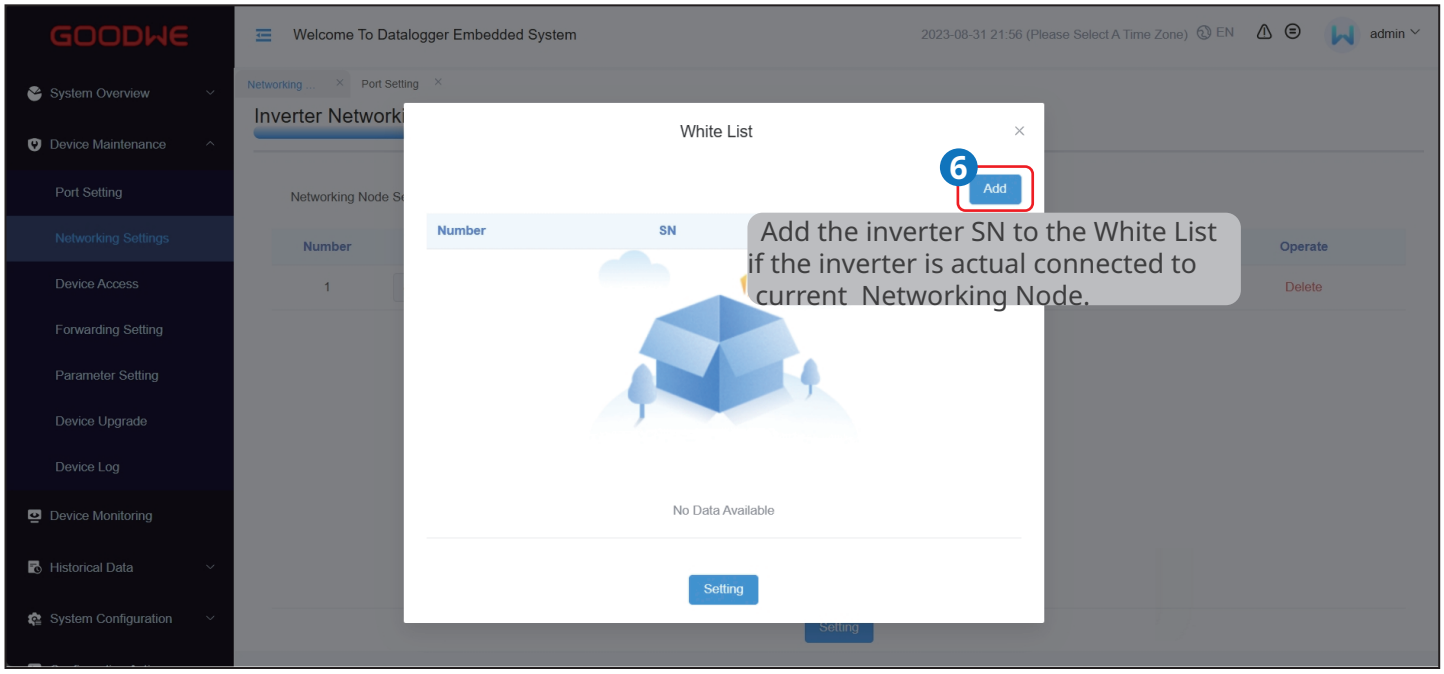
HPLC (EzLogger3000U-A)

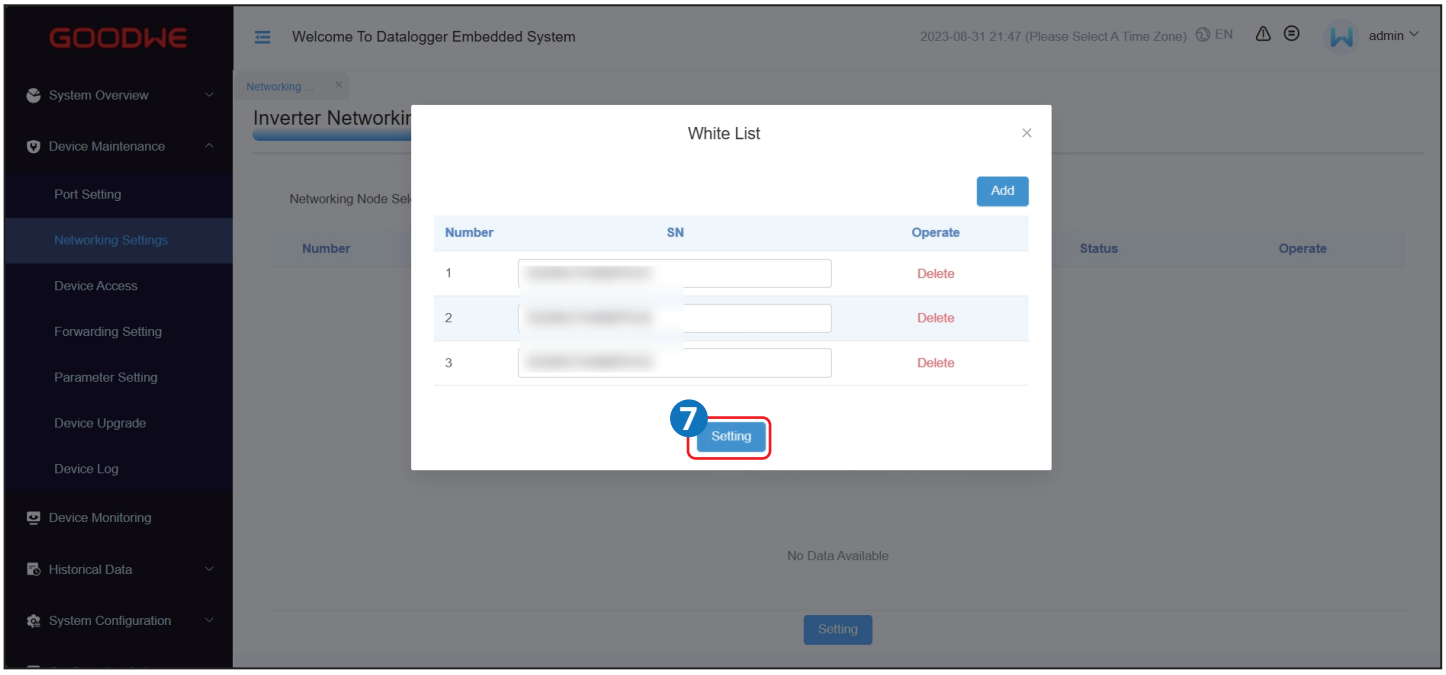
NOTICE

- Add the inverters to the white list based on different networking node, like MAIN-CCO or CAN-CCO.
- To add a new device, just add its SN to the whitelist and click Start Searching. After searching, set its Terminal Address and MV Station Number.
- Adding a new device to the effective whitelist will not affect or overwrite previously added device.






GOODWE
Welcome To Datalogger Embedded System
2023-08-31 21:56 (Please Select A Time Zone)
admin
System Overview
Device Maintenance
Port Setting
Networking Settings
Device Access
Forwarding Setting
Parameter Setting
Device Upgrade
Device Log
Device Monitoring
Historical Data
System Configuration
Inverter Networki
White List
6
Add
Number
SN
Operate
Add the inverter SN to the White List if the inverter is actual connected to current Networking Node.
No Data Available
Setting


GOODWE
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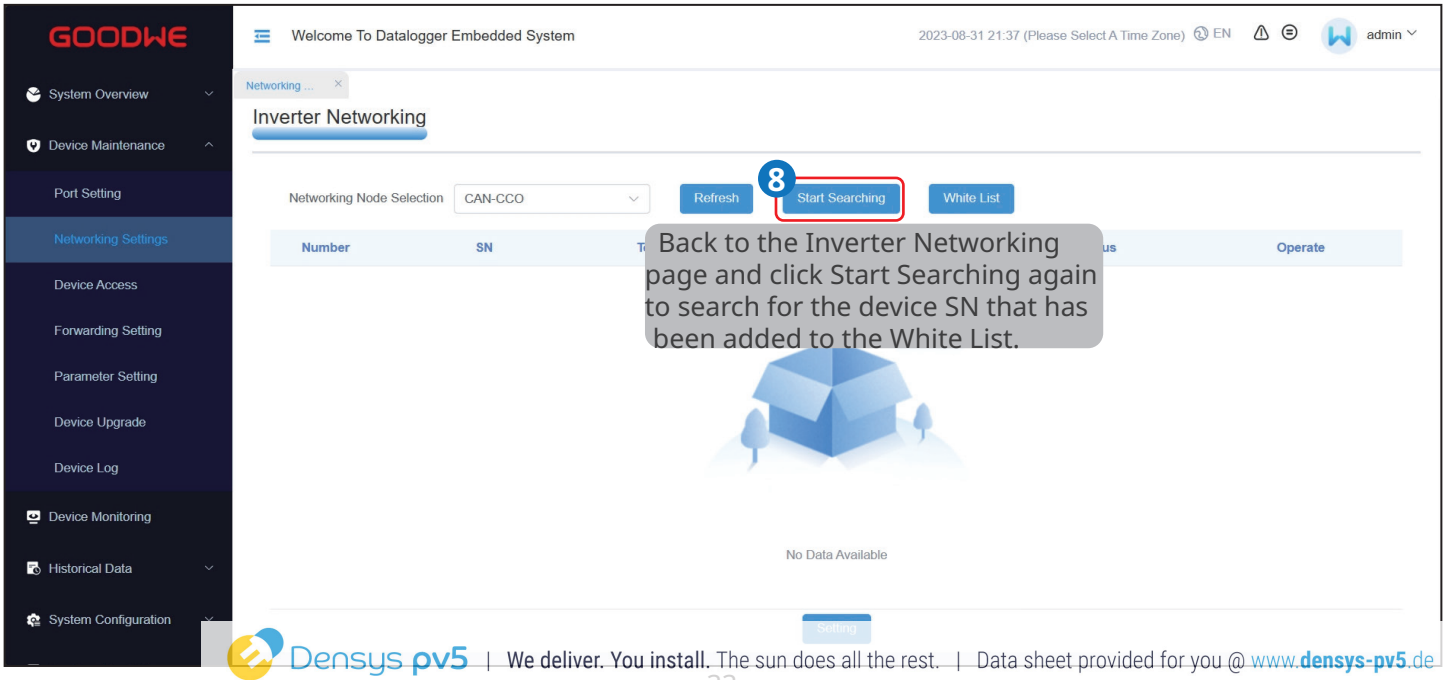
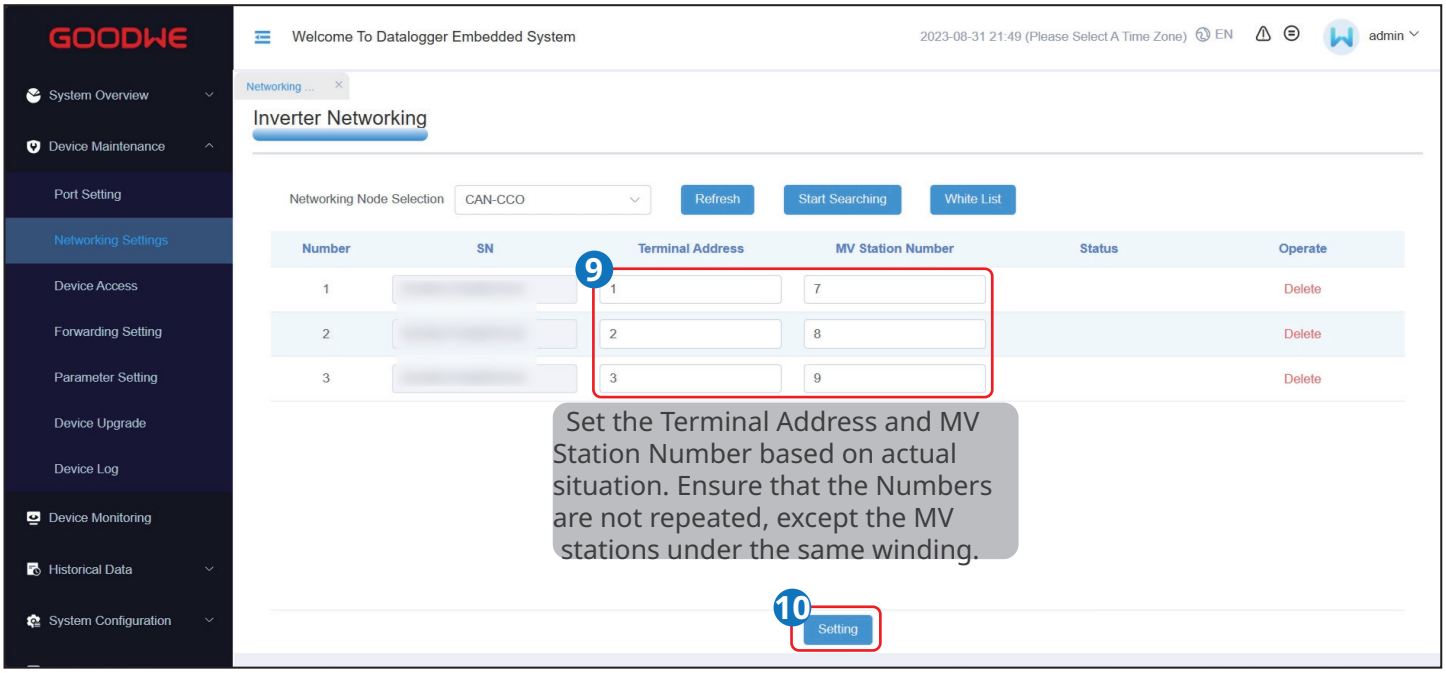
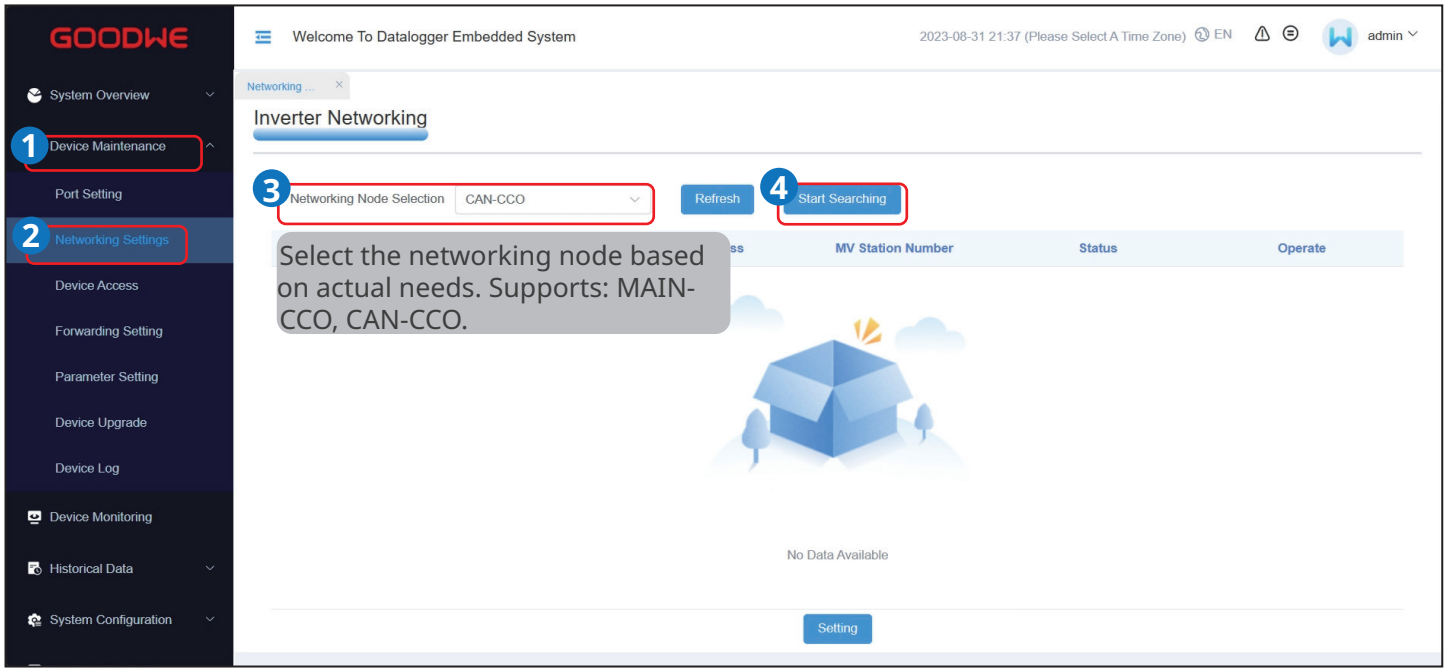
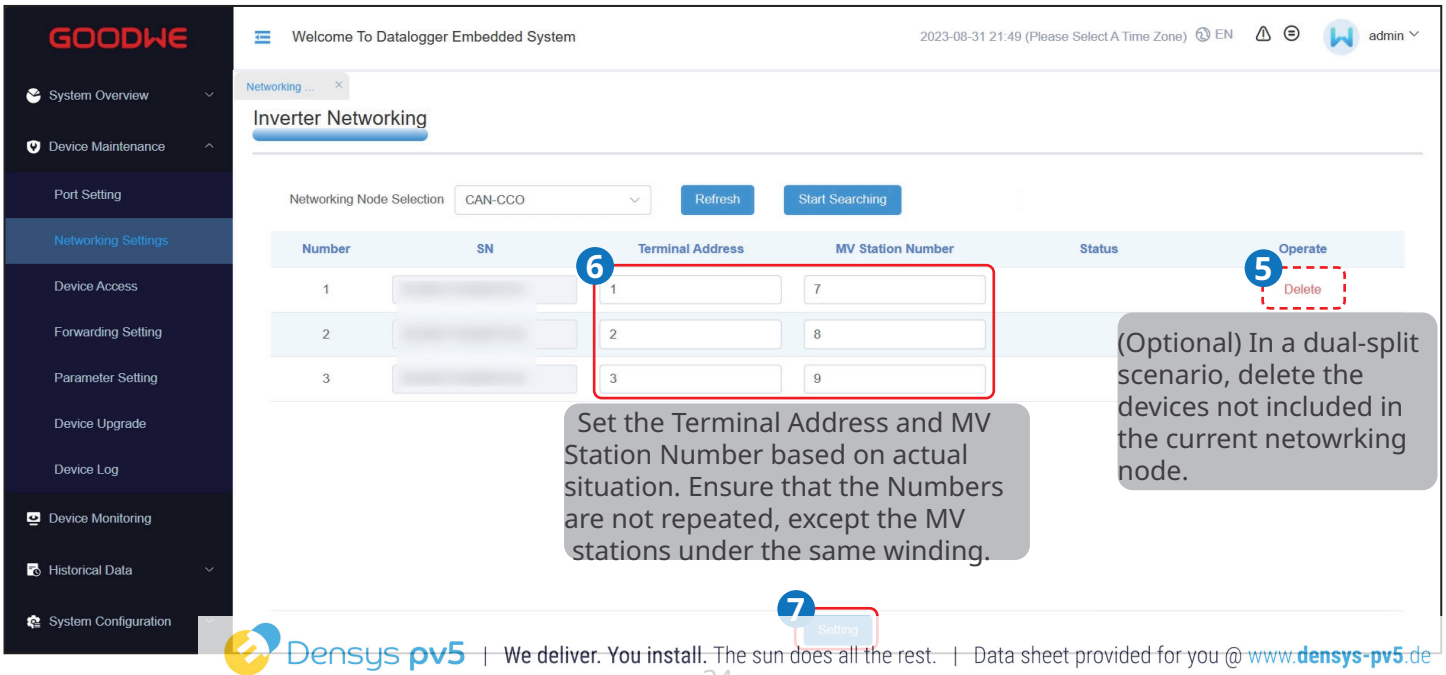
2023-08-31 21:47 (Please Select A Time Zone)
admin
System Overview
Device Maintenance
Port Setting
Networking Settings
Device Access
Forwarding Setting
Parameter Setting
Device Upgrade
Device Log
Device Monitoring
Historical Data
System Configuration
Inverter Networki
White List
Add
Number
SN
Operate
1
2
3
Delete
7
Setting
Status
No Data Available
Setting


GOODWE
Welcome To Datalogger Embedded System
2023-08-31 21:37 (Please Select A Time Zone)
admin
System Overview
Device Maintenance
Port Setting
Networking Settings
Device Access
Forwarding Setting
Parameter Setting
Device Upgrade
Device Log
Device Monitoring
Historical Data
System Configuration
Inverter Networking
Networking Node Selection
CAN-CCO
Refresh
8
Start Searching
White List
Number
SN
Operate
Back to the Inverter Networking page and click Start Searching again to search for the device SN that has been added to the White List.
No Data Available
Setting



PLC (EzLogger3000U)



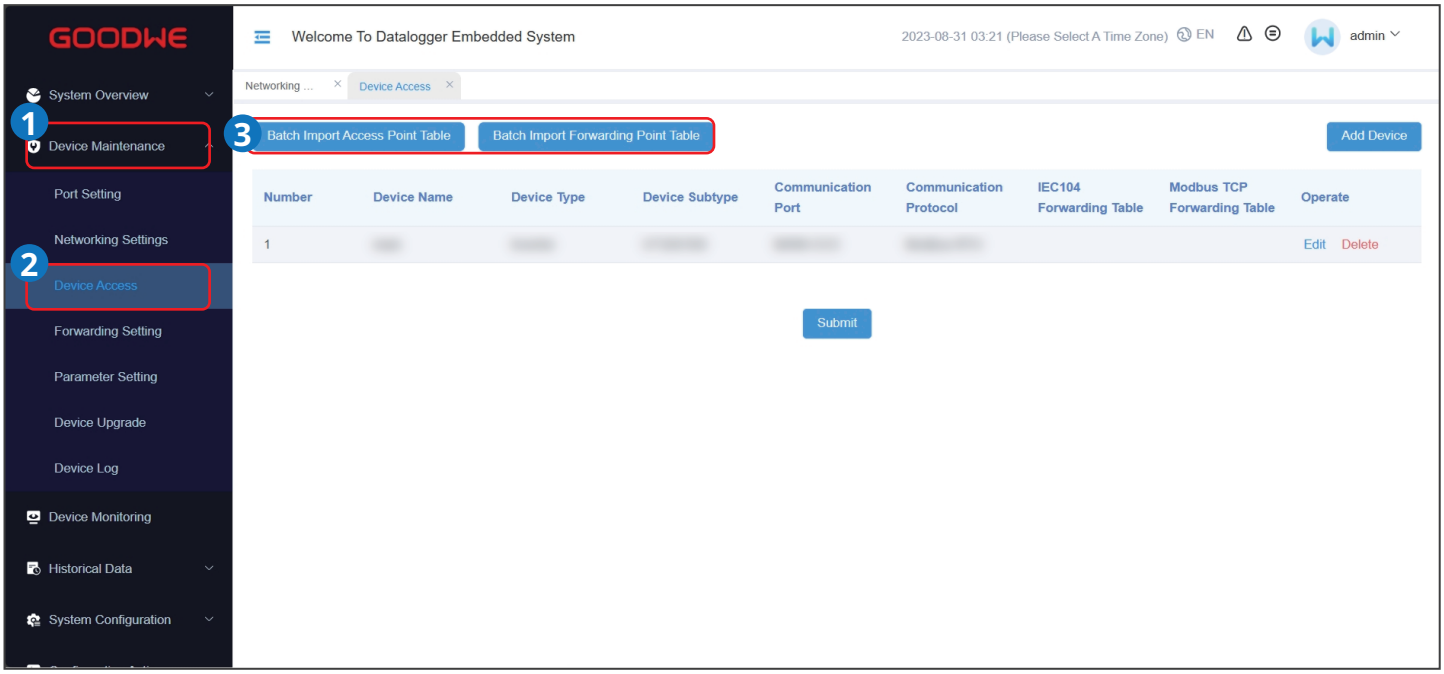


8.4.3 Adding Devices

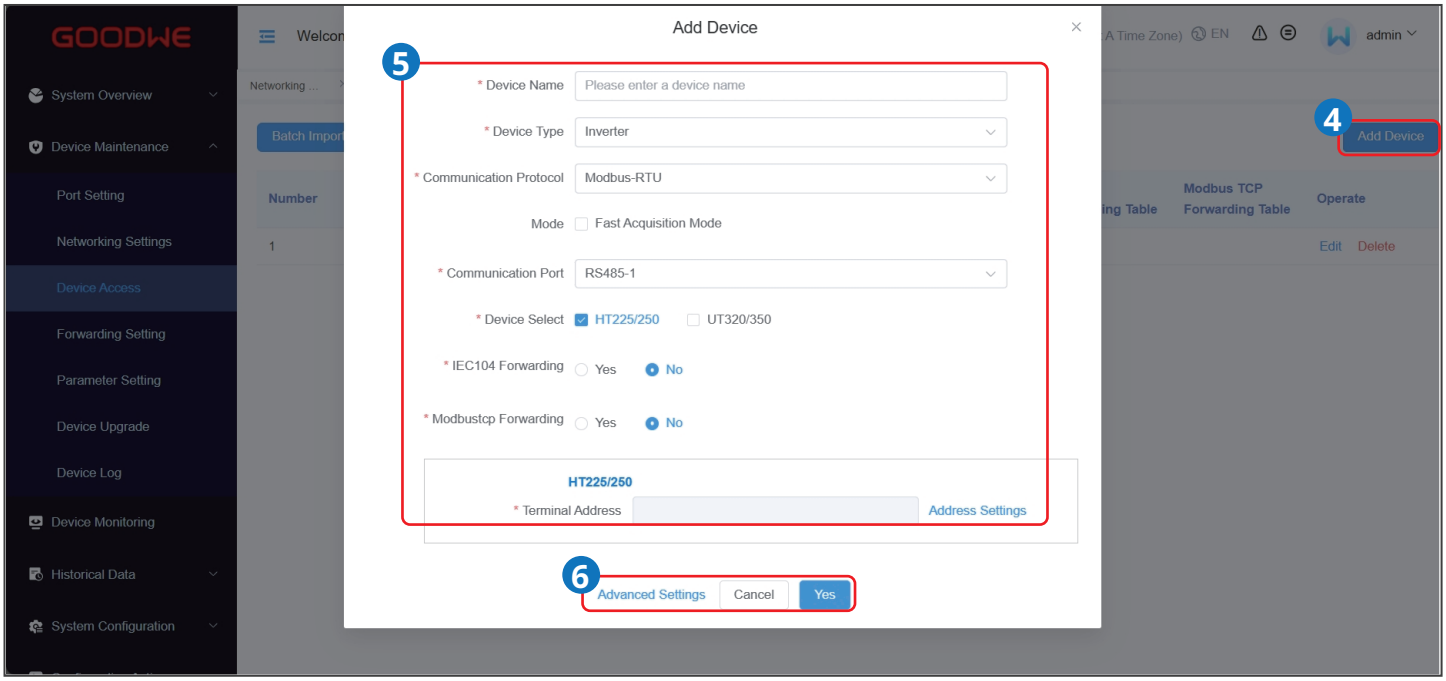
NOTICE

- EzLogger supports importing access point tables and forwarding point tables of third-party devices like meters or EMIs. It is recommended to import all the point tables of meters, EMIs, and other devices connected to the EzLogger before adding devices.
- Contact the after-sales service to obtain the device access point table and forwarding point table.

Step 1 Click **Equipment Maintenance** > **Device Access** to add devices.



Step 2 Enter the information based on actual situation.



Adding Inverters

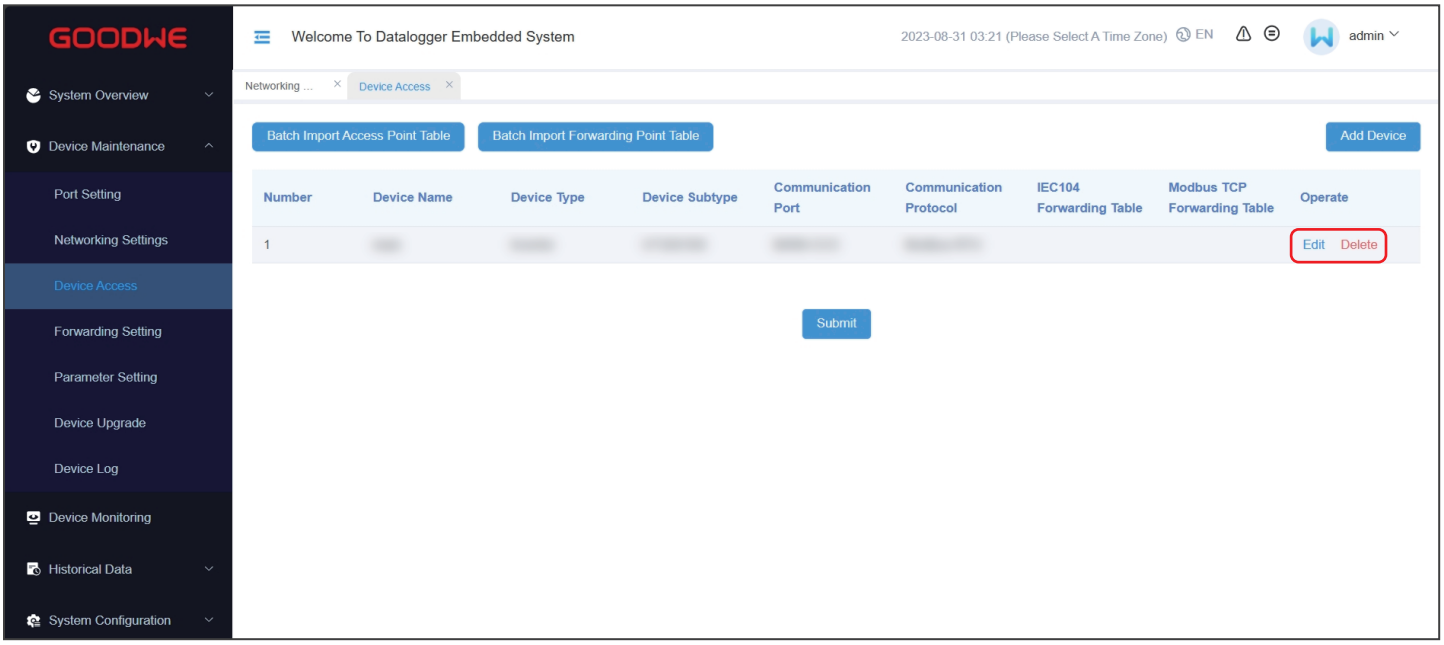
Parameter	Description
Device Name	Supports to define device names based on the actual situation.
Device Type	Select "Inverter".
Device Subtype	Select the connected inverter series. Support: HT225/250 or UT320/350.
Communication Protocol	Set based on the communication protocol of the inverter. Support: Modbus-RTU.
When the Communication Protocol is Modbus-RTU, set the following parameters based on actual situation:	
Fast Acquisiton Mode	Only applicable to HPLC/PLC scenarios, contact after-sales service for more details.
Communication Interface	Select based on the actual port on the EzLogger the device is connected to. • RS485-1~RS485-4: Select the actual connected port when the inverter's RS485 port is connected to RS485 1-4 ports of the EzLogger. • CAN-EZIO: Select CAN-EZIO when the inverter's RS485 port is connected to RS485 5-8 ports of the EzLogger. • CAN-CCO/MAIN-CCO: Select CAN-CCO/MAIN-CCO based on actual situation when the inverter is connected to the PLC port in a dual-split scenario.
Terminal Address	Refers to the device address of the inverter. Set according to the actual power plant planning.
Device ID	Displayed when selecting the CAN-EZIO communication interface. Set according to the actual EzLogger port the device connected to.
MV Station Number	Displayed when selecting the CAN-CCO communication interface. Set according to the actual MV station number.
IEC104 Forwarding	Select based on the imported device forwarding point table.
Modbus-TCP Forwarding	Select based on the imported device forwarding point table.
Query Interval	The parameters are under “Advanced Setting”. Contact after-sales service center for configuration if needed.
Frame Response Timeout In Milliseconds	
Transmit Response Timeout In Milliseconds	
Number Of Retries After Response Timeout	

Adding Other Devices

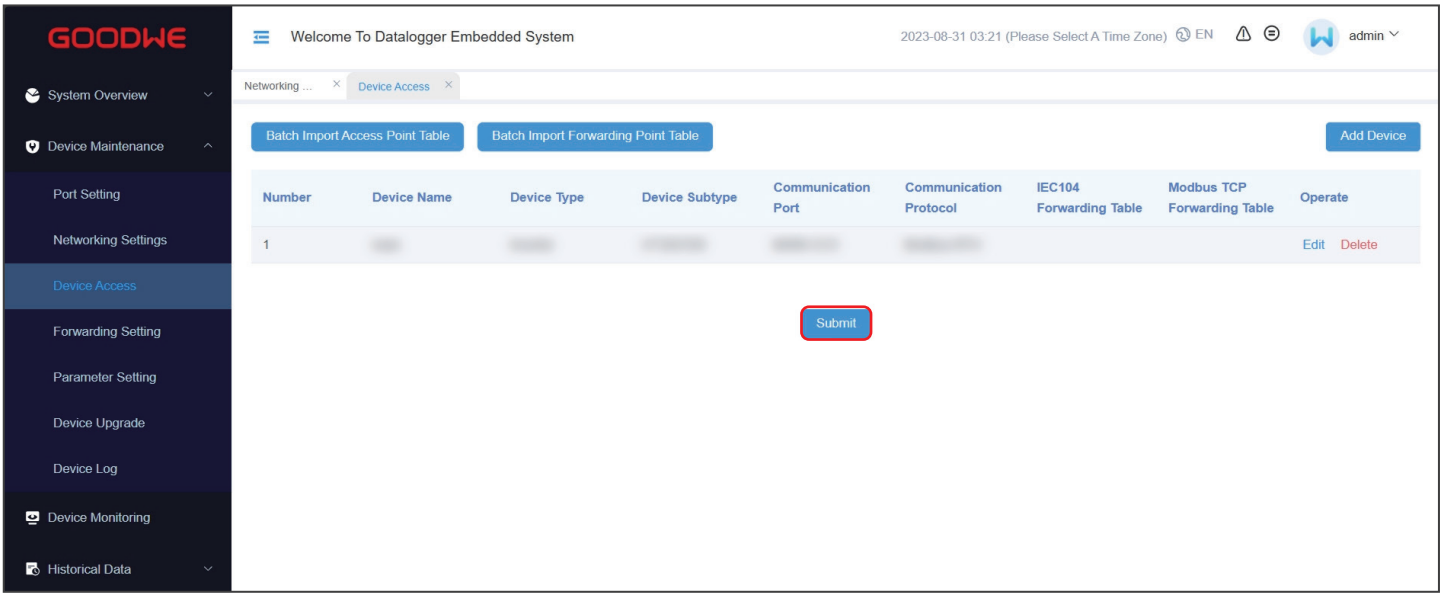
Parameter	Description
Device Name	Supports to define the device names based on the actual situation.
Device Type	Select "Other Device".
Communication Protocol	Select based on the communication protocol of the device. Support Modbus-RTU, and GW-XPH.
When the Communication Protocol is Modbus-RTU, set the following parameters based on actual situation:	
Communication Interface	Select based on the actual port the EzLogger connected to. When the RS485 port of the other device is connected to RS485 5-8 ports of the EzLogger, select CAN-EZIO.
Device Subtype	Select the device type based on the actual situation.
Terminal Address	Device address. Set the parameter based on the actual power plant planning.
Device ID	Device address. Set according to the actual power plant planning. If no specific setting is required, it can be generated automatically.
Agreement Type	Displayed when selecting the CAN-EZIO communication interface. Set according to the actual EzLogger port the device connected to.
IEC104 Forwarding	Select based on the protocol type used by the equipment.
Modbus-TCP Forwarding	Select based on the imported device forwarding point table.
When the Communication Protocol is GW-XPH, set the following parameters based on actual situation:	

Parameter	Description
Communication Interface	Select based on the actual port the EzLogger connected to.
Terminal Address	Device address. Set the parameter based on the actual power plant planning.

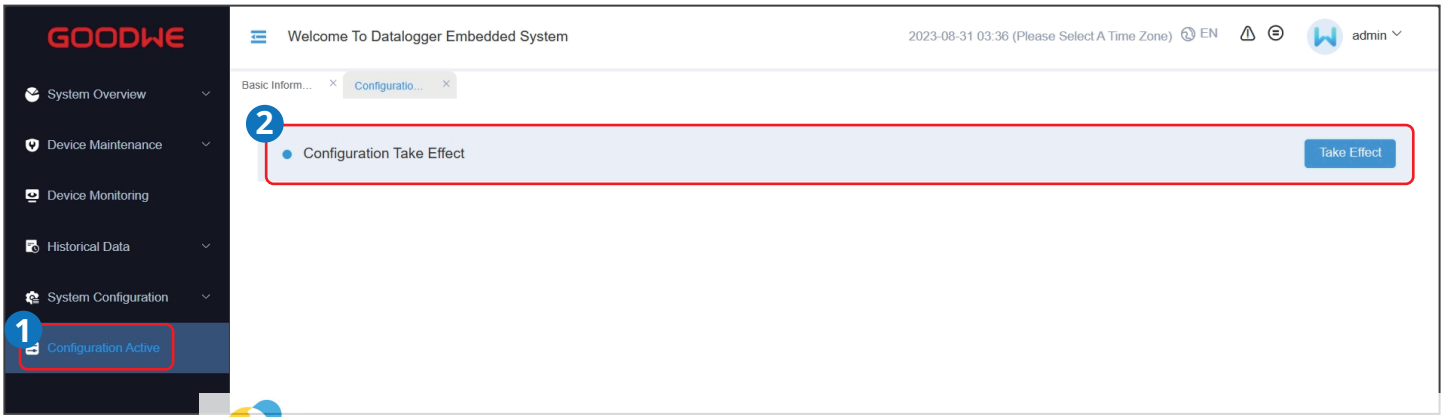
Step 3: (Optional) After completing the parameter settings, click **Edit** or **Delete** to modify parameters or delete devices.



Step 4 Click Submit after completing the settings.



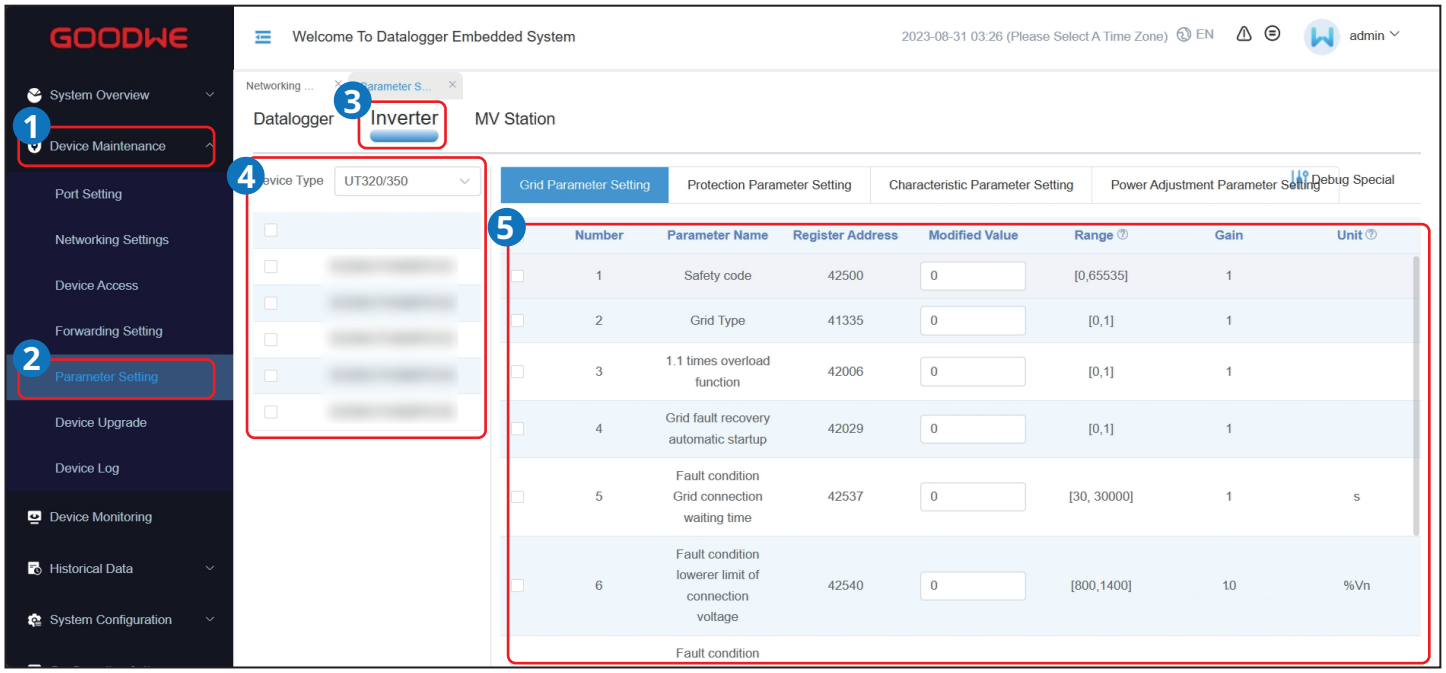
Step 4 Click Configuration Active to complete the configurations.



8.4.4 Setting Inverter Parameters

NOTICE

- The parameters to be set vary with the inverter type. The actual interface prevails.
- Enter 0 or 1 to enable or disable a function. Except Island Mode: 0 indicates disable the function, and 1 indicates enable the function. Island Mode: 1 indicates disable the function, and 0 indicates enable the function.



Grid Parameters

Parameter	Description
Safety Code	Select based on the grid standards of the country/region where the inverter is located and its application scenario.
Grid Type	Set whether the inverter's output includes the neutral (N) cable based on its application scenario. 0: three-phase four wire (3W/PE); 1: three phase five wire (3W/N/PE)
1.1 Times Overload Function	The inverter outputs overload power after enabling this function.
Normal condition Grid connection waiting time	The waiting time for connecting the inverter to the grid when meeting the following requirements. 1. The inverter is powered on for the first connection. 2. The utility grid voltage and frequency meet certain requirements.
Normal condition upper limit of connec-tion volt-age	The inverter cannot connect to the grid if it is powered on for the first connection and the grid voltage is higher than the Normal condition upper limit of connection volt-age.
Normal condition lower limit of connec-tion volt-age	The inverter cannot connect to the grid if it is powered on for the firstconnection and the grid voltage is lower than Normal condition lower limit of connec-tion volt-age.
Normal condition upper limit of connec-tion fre-quency	The inverter cannot connect to the grid if it is powered on for the first connection and the grid frequency is higher than Normal condition upper limit of connection fre-quency
Normal condition lower limit of connec-tion fre-quency	The inverter cannot connect to the grid if it is powered on for the first connection and the grid frequency is lower than the Normal condition lower limit of connection fre-quency.

Parameter	Description
Voltage of Enter the curve (0.1%)	Set the trigger voltage value for reactive power compensation according to the (cos -P) curve.
Voltage of quit the curve(0.1%)	Set the exit voltage value for reactive power compensation according to the (cos -P) curve.
Fault condition Grid connection waiting time	Set the waiting time for the inverter to restart after a grid failure is restored.
Fault condition lowerer limit of connection voltage	In some countries/regions, when the inverter is shut down due to a fault protection, the inverter is not allowed to reconnect to the grid if the grid voltage exceeds the set value of the Reconnect Grid-connected Voltage Upper Limit.
Fault condition upper limit of connection voltage	In some countries/regions, when the inverter is shut down due to a fault protection, it is not allowed to reconnect to the grid if the grid voltage is lower than the set value of the Reconnect Grid-connected Voltage Lower Limit.
Fault condition lowerer limit of connection frequency	In some countries/regions, when the inverter is shut down due to a fault protection, the inverter is not allowed to reconnect to the grid if the grid frequency is higher than the set value of the Reconnection Grid Frequency Upper Limit.
Fault condition upper limit of connection frequency	In some countries/regions, when the inverter is shut down due to a fault protection, the inverter is not allowed to reconnect to the grid, if the grid frequency is lower than the set value of the Reconnection Grid Frequency Lower Limit.

Protection Parameters

Parameter	Description
ISO Threshold	To protect the equipment, the inverter performs an insulation impedance check on the input side during self-check at startup. If the measured value is lower than the set value, the inverter will not connect to the grid.
Voltage unbalance protection point	Set the inverter protection threshold when the grid voltage is unbalanced.
Phase Angle offset protection	The standards of certain countries and regions require that the inverter needs to be protected when the phase angle offset of the power grid three phases exceeds a certain value.
10min overvoltage trigger value (0.1%)	Set the 10-min overvoltage protection threshold.
10min trigger trip time	Set the 10-min overvoltage protection duration.
Overvoltage Trigger n Order Value (0.1%)	Set the Level n overvoltage protection threshold.
Overvoltage Triggers n Order Trip time	Set the Level n overvoltage protection duration.
Undervoltage Trigger n Order Value (0.1%)	Set the Level n undervoltage protection threshold.
Undervoltage Trigger n Order Trip Time	Set the Level n undervoltage protection duration.
Overfrequency Trigger n Order Value	Set the level n overfrequency protection threshold.
Overfrequency Trigger n Order Trip Time	Set the level n overfrequency protection duration.
Underfrequency Trigger n Order Value	Set the level n underfrequency protection threshold.
Underfrequency Trigger n Order Trip Time	Set the level n overfrequency protection duration.

Feature Parameters

Parameter	Description
Shadow Mppt Function 1	PV strings may exist significant shading in PV systems where the inverter is applied. Enabling this feature, allows the inverter to perform a global MPPT scan at regular intervals to find the maximum power point.
Shadow Scan Period	Set the intervals for MPPT scanning. Able to be set after enabling the "Shadow Mppt FunctionSwitch 1".
Leakage Current Optimization Mode	RCD refers to the residual current from the inverter to the ground. To ensure the safety of equipment and personnel, the RCD value shall be lower than the value specified by the standards. When the inverter is externally installed with an AC switch that has residual current detection function, enable this feature, to reduce the residual current generated by the inverter during operation and prevent unintended operation of the AC switch.
Night Reactive Power Switch	In certain application scenarios, grid companies may require the inverter to provide reactive power compensation during the night, to ensure the power factor of the local grid meets the requirements.
Pid Night Protection Function Switch	The inverter outputs reactive power at night. With PID night protection function enabled, the inverter will automatically shut down when it detects that the PID module voltage compensation is abnormal.
Terminal Voltage Control Switch	When the short-circuit capacity of the grid or the installed capacity of the power plant is less than 3, excessive grid impedance can affect the grid quality and may cause the inverter to malfunction. In such cases, if the inverter needs to operate normally, this parameter should be enabled.
Harmonic Optimization Mode	Enable this feature, and it will optimize the output current harmonics of the inverter.
Panel Type	Set the type of PV panels.
Pid Prevent Function Switch	Enable or disable the PID prevent function.
Pid Repair Function Switch	Enable or disable the PID repair function.
Communication Disconnect Switch	According to the standards or requirements of some countries/regions, the inverter must be shut down when the communication fails for more than a certain time. Enable the **Communication Disconnect Switch**, the inverter will automatically shut down when the inverter communication break reaches **Communication Disconnection Recovery Settings**.
Communication Disconnection Recovery Settings	
Start-Up Active Power Adjustment Rate	Set the rate of power change when the inverter is started up.
Shutdown Active Power Regulation Rate	Set the rate of power change when the inverter is shut down.
Afci Detection Switch	It is required that inverters shall own DC arc detection function by the North American standards.
Power Off Command Hold	According to the standard requirements of some countries/regions, the inverter is still in the command shutdown state when it is shutdown and powered on again.
Maximum Active Power	Set the upper limit of the maximum active power.
Total Power Generation	Set the initial value of the inverter's power generation. In scenarios where the inverter is replaced, set the initial value of the new inverter's power generation to the total power generation of the original inverter, to ensure the continuous accumulation of power generation.

Parameter	Description
LVRT Enable	• Low voltage ride-through (LVRT) refers to the situation, when the grid experiences a short-term low voltage abnormality, the inverter cannot immediately disconnect from the grid and has to work for a period of time. • Enable this feature, the inverter's LVRT is being activated.
The Judgment Threshold Of Entering LVRT	Set the threshold for triggering LVRT. The threshold settings should meet the local grid standard.
LVRT Positive Sequence Reactive K Value	During LVRT, the inverter needs to generate positive sequence reactive power to support the grid. This parameter is used to set the positive-sequence reactive power generated by the inverter. For example, If the Low Wear Positive Sequence Reactive Power K Value is set to 2, the increment of positive-sequence reactive current generated by the inverter is 20% of the rated current when the AC voltage decreases by 10% during LVRT. If the value is set to 0, the increment of positive-sequence reactive current generated by the inverter remains at 0, regardless of the AC voltage decreases during LVRT.
LVRT Negative Sequence Reactive K Value	During LVRT, the inverter needs to generate negative sequence reactive power to support the grid. This parameter is used to set the negative-sequence reactive power generated by the inverter. For example, if the Low Wear-Through Sequence Reactive Power K Value is set to 2, the increment of negative-sequence reactive current generated by the inverter is 20% of the rated current when the AC voltage decreases by 10% during LVRT. If the value is set to 0, the increment of negative-sequence reactive current generated by the inverter remains at 0, regardless of the AC voltage decreases during LVRT.
LVRT Positive Reactive Power Current Limit Percent	During LVRT, the inverter needs to limit the reactive current. For example, if the **LVRT Positive Reactive Power Current Limit Percent** is set to 50, the upper limit of the inverter's reactive current is 50% of the rated current during LVRT.
LVRT Null-Current Mode Enter Voltage Limit	If the grid voltage is less than **LVRT Null-Current Mode Enter Voltage Limit** during LVRT, the zero current mode will be used.
Current Distribution Mode	Set the LVRT mode. Available options include zero current mode, constant current mode, reactive power priority mode, and active power priority mode.
HVRT Enable	• The High Voltage Ride-Through (HVRT) refers to the situation, when the grid voltage is abnormally high for a short time, the inverter cannot disconnect from the grid immediately and has to work for some time. • Enable this feature, the inverter's HVRT is being activated.
The Judgment Threshold Of Entering HVRT	Set the threshold for triggering HVRT. The threshold settings should meet the local grid standard.
HVRT Positive Sequence Reactive K Value	During HVRT, the inverter needs to generate positive sequence reactive power to support the grid. This parameter is used to set the positive-sequence reactive power generated by the inverter. For example, If the **High Wear Positive Sequence Reactive Power K Value** is set to 2, the increment of positive-sequence reactive current generated by the inverter is 20% of the rated current, when the AC voltage increases by 10% during HVRT.
HVRT Negative Sequence Reactive K Value	Similarly, during HVRT, the inverter needs to generate negative sequence reactive power to support the grid. This parameter is used to set the negative-sequence reactive power generated by the inverter. For example, If the **High Negative Sequence Reactive Power K Value** is set to 2, the increment of negative-sequence reactive current generated by the inverter is 20% of the rated current, when the AC voltage increases by 10% during HVRT.
The Judgment Threshold Of Quiting LVRT	Set the threshold for existing LVRT. The threshold settings should meet the local grid standard.

Parameter	Description
Ride Through End Active Power Recover Speed	The Active Power Recovery Rate At The End Of Crossing parameter determines the rate at which the active power current recovers to its pre-crossing value during the fault ride-through recovery process.
LVRT Null-Current Mode Enable	Certain countries and regions have requirements on the output current during LVRT. In this case, set this parameter to Enable. After the setting, the output current is less than 10% of the rated current during LVRT.
Island Mode	Set whether to enable the island protection function.
Pu Curve Enable	Set the P-U curve according to the standard requirements of certain countries/ regions.
Qu Curve Enable	Set the Q-U curve according to the standard requirements of certain countries/ regions.
Frequency Shift Protect Threshold Value	Enable this function to protect the inverter when the grid frequency changes too fast.
Frequency Shift Protect Threshold Value	Set the frequency change protection threshold.
Frequency Shift Protect Time	Set the frequency change protection duration.

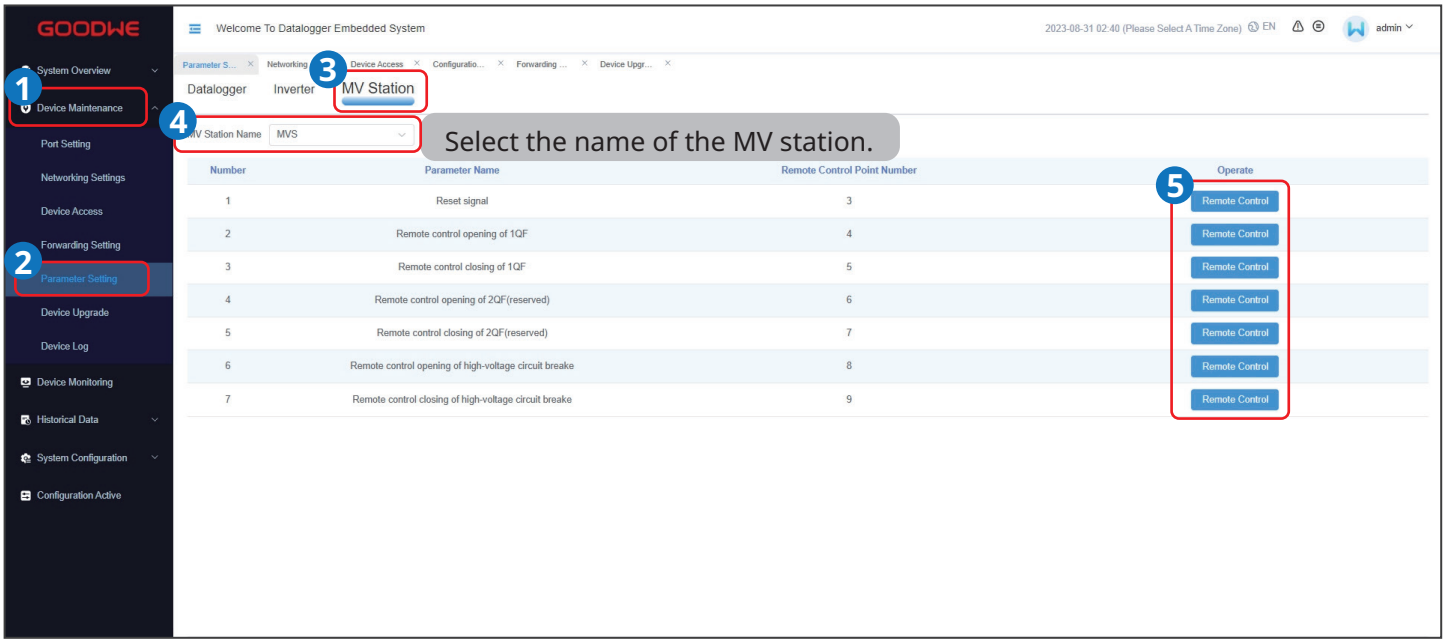
Power Regulation Parameters

Parameter	Description
Active Power Control Method	The standards and regulations of some countries and regions require to enable **Active Power Control Method** to control the active power output.
Maximum Apparent Power	Set the output upper threshold for the maximum apparent power.
Active Power Gradient	Set the change speed of the inverter's active power.
Active Power Fixed Value Derating	Adjust the active power output of the inverter by fixed value.
Active Power Percentage Derating(0.1%)	Adjust the active power output of the inverter by percentage.
Reactive Power Gradient	Set the change speed of the inverter's reactive power.
Reactive Power Compensation(Pf)	Set the power factor of the inverter.
Reactive Power Compensation(Q/S)	Set the reactive power output from the inverter.
Night Reactive Power Compensation Percentage Derating	During the reactive power compensation at night, the reactive power is scheduled by percentage.
Night Reactive Power Switch	In certain application scenarios, grid companies may require the inverter to provide reactive power compensation during the night, to ensure the power factor of the local grid meets the requirements.
Night Reactive Power Parameters Enable	Enable this parameter, the inverter outputs reactive power based on the setting value of **Night Reactive Power Compensation Fixed Value**. Otherwise, the inverter executes the remote scheduling command.
Night Reactive Power Compensation Fixed Value	During the reactive power compensation at night, the reactive power is scheduled by fixed value.
Over Frequency Point	The standards of certain countries and regions require that the output active power of inverters be derated when the power grid frequency exceeds a certain value.

Parameter	Description
Hysteresis Frequency Point	Set the frequency threshold for exiting over-frequency derating.
P(F) Power Slope (Slope)	Set the decreasing speed of the overfrequency derating.
Recover Power Slope	Set the recovering speed of the overfrequency derating.
Primary Fm Curve Enable	Enable **Primary Fm Curve Enable** to adjust the active power and ensure the proper working of the inverter when the grid frequency is unstable.
P(F) Curve Eable	Enable P(F) curve when it is required by local grid standards and requirements.
Under Frequency Point	Set the frequency threshold of underfrequency rise power.
Recover Power Slope	Set the recovery rate of underfrequency rise power.
Hysteresis Frequency Point	Set the exit frequency of underfrequency rise powe.
Active Control Adjust	The percentage of the inverter maximum active power output to the rated power. For example, when the Active Control Adjust is set to 10, the reactive power output is 10%*rated power.
PF Reactive Power Adjust	Set the reactive power output of the inverter.
Reactive Power Adjust (Percentage Adjust)	The percentage of the inverter reactive power output to the rated power. For example, when the Reactive Power Adjust is set to 10, the reactive power output is 10%*rated power.
Frequency-Power Curve	Enable or disable the Frequency-Power Curve.
Derating Reference Power Mode	Adjust the inverter output power based on apparent active power, rated active power, etc.
PU Curve Enable	Enable PU curve when it is required by local grid standards and requirements.
Voltage3(0.1%)	The percentage of actual voltage to the rated voltage at V3 point
Voltage4(0.1%)	The percentage of actual voltage to the rated voltage at V4 point
Recovery Slope (0.1%)	The percentage of inverter active power to the apparent power at V4 point

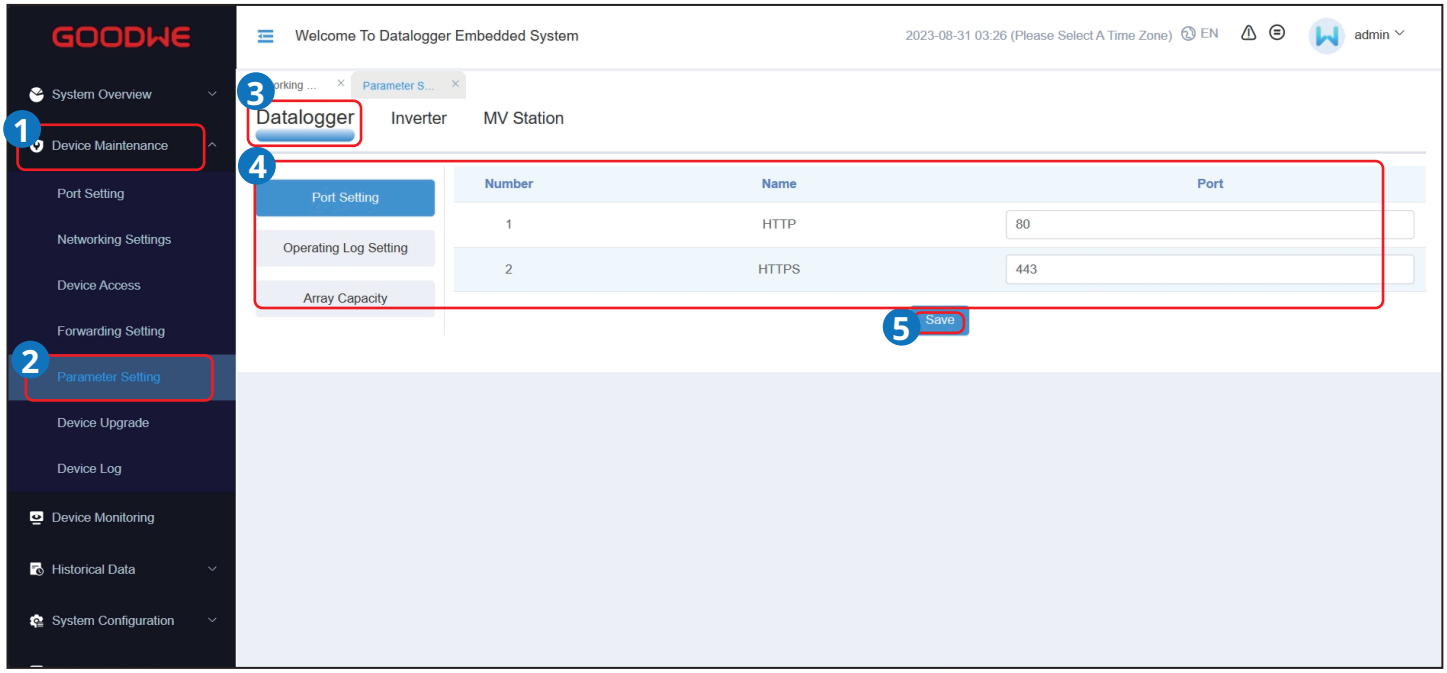
8.4.4 Setting the MV Station's Parameters

NOTICE
Ensure that the communcation status of the MV station is normal before setting the parameters.



8.4.5 Setting the EzLogger's Parameters

Step 1: Follow below steps to set the EzLogger's parameters.

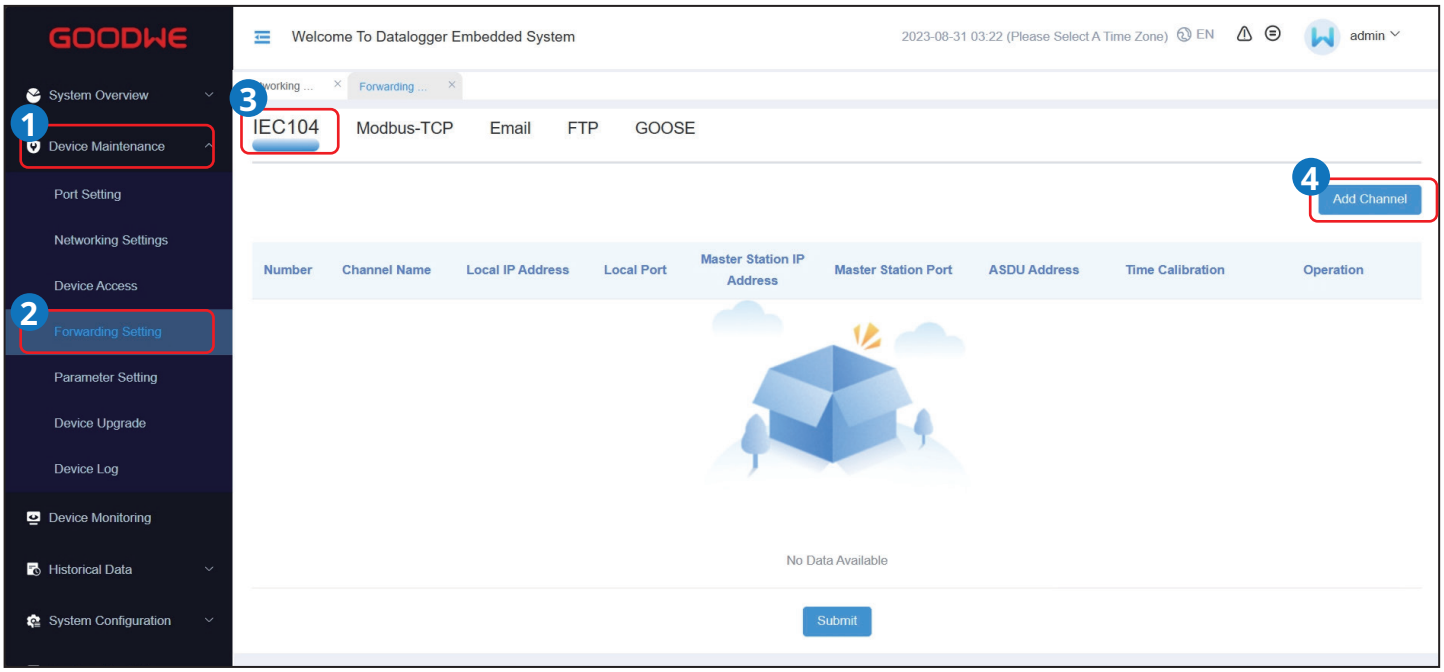


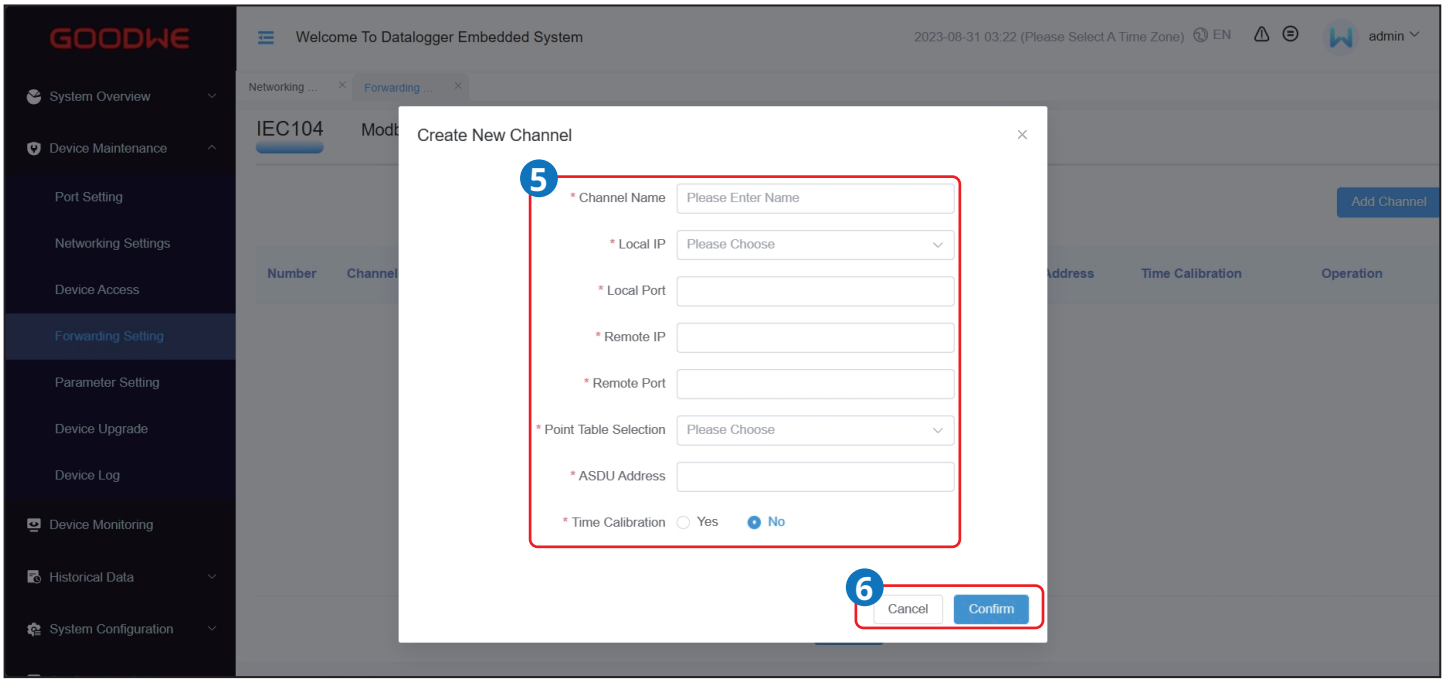
Tab	Parameter	Description
Port Setting	HTTP	Set according to the logged-in EzLogger port number.
	HTTPS	
Operating Log Settings	Log File Size	Set the size and quantity of log files to be stored according to the actual demanding.
	Number Of Log Files	
Aarray Capacity	Aarray Capacity	Set according to the actual array capacity.

8.4.7 Setting Forwarding Parameters

8.4.7.1 Setting IEC104 Parameters

Set IEC104 parameters when EzLogger is connected to a management system via the IEC104 protocol.



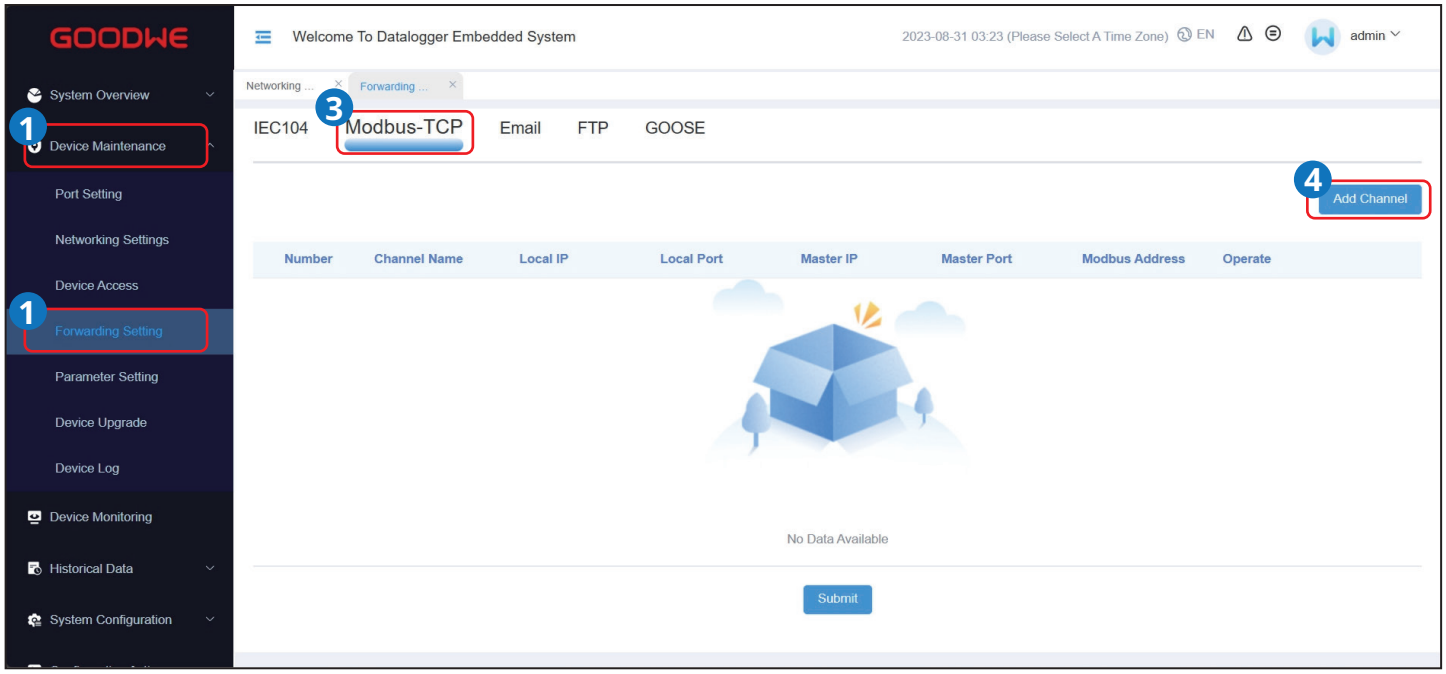


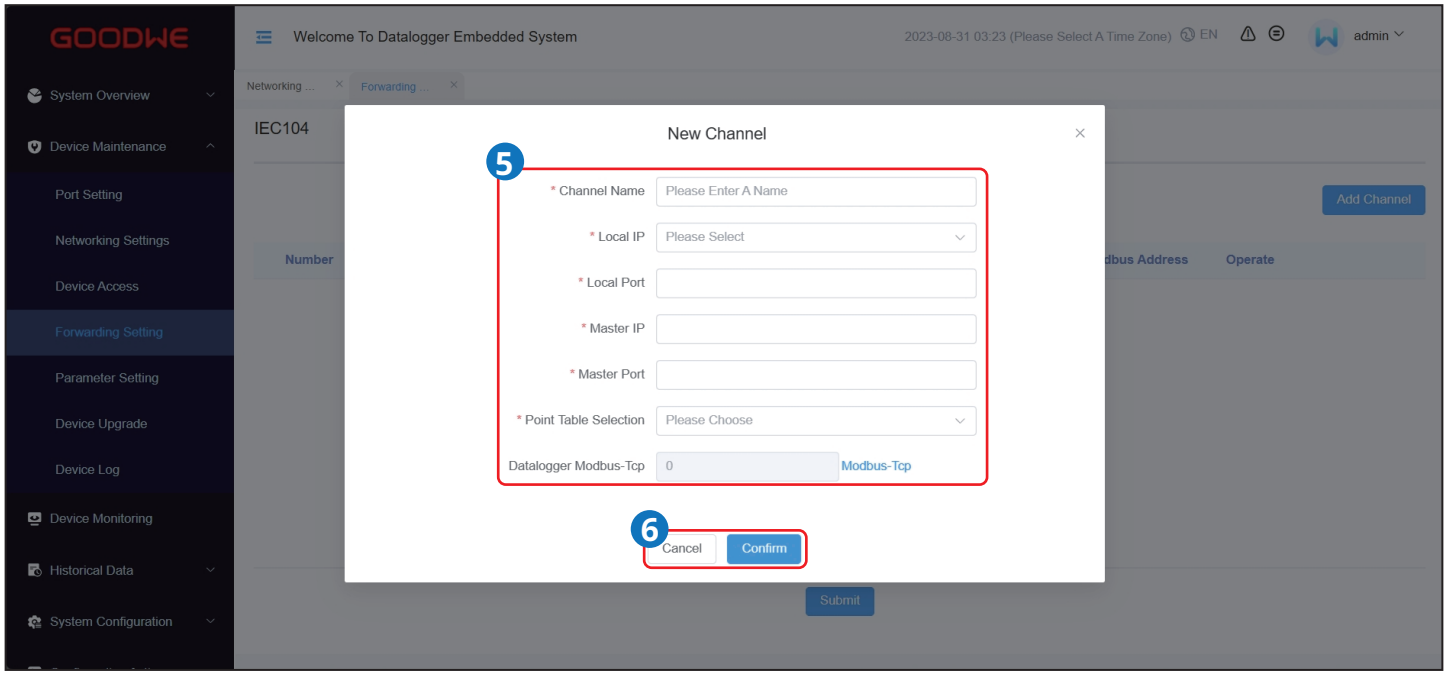
Parameter	Description
Channel Name	Supports to define device names based on the actual situation.
Local IP	Refers to the IP address of the EzLogger.
Local Port	Refers to the port number of the EzLogger.
Remote IP	Refers to the IP address of the IEC104 management system.
Remote Port	Refers to the port number of the IEC104 management system. Fill “0” when the contralateral port number is not fixed.
Point Table Selection	Select the imported device point table. the forwarding point table can be mapped while setting. Select according to the actual situation.
ASDU Address	Refers to the address of the IEC104 management system.
Time Calibration	Set time calibration or not based on actual needs.

8.4.7.2 Setting the Modbus-TCP Parameters

Set Modbus-TCP parameters when EzLogger is connected to a management system via the Modbus-TCP protocol.

Step 1: Follow below steps to set the Modbus-TCP parameters.



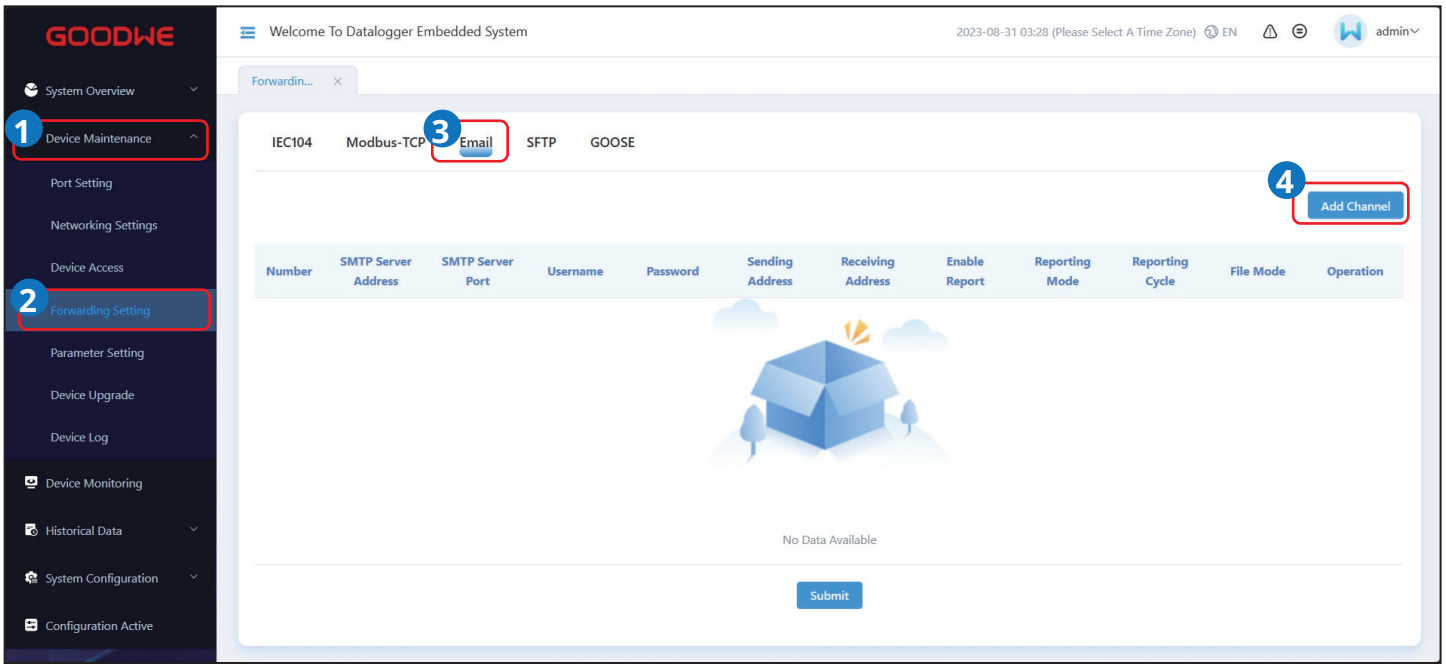


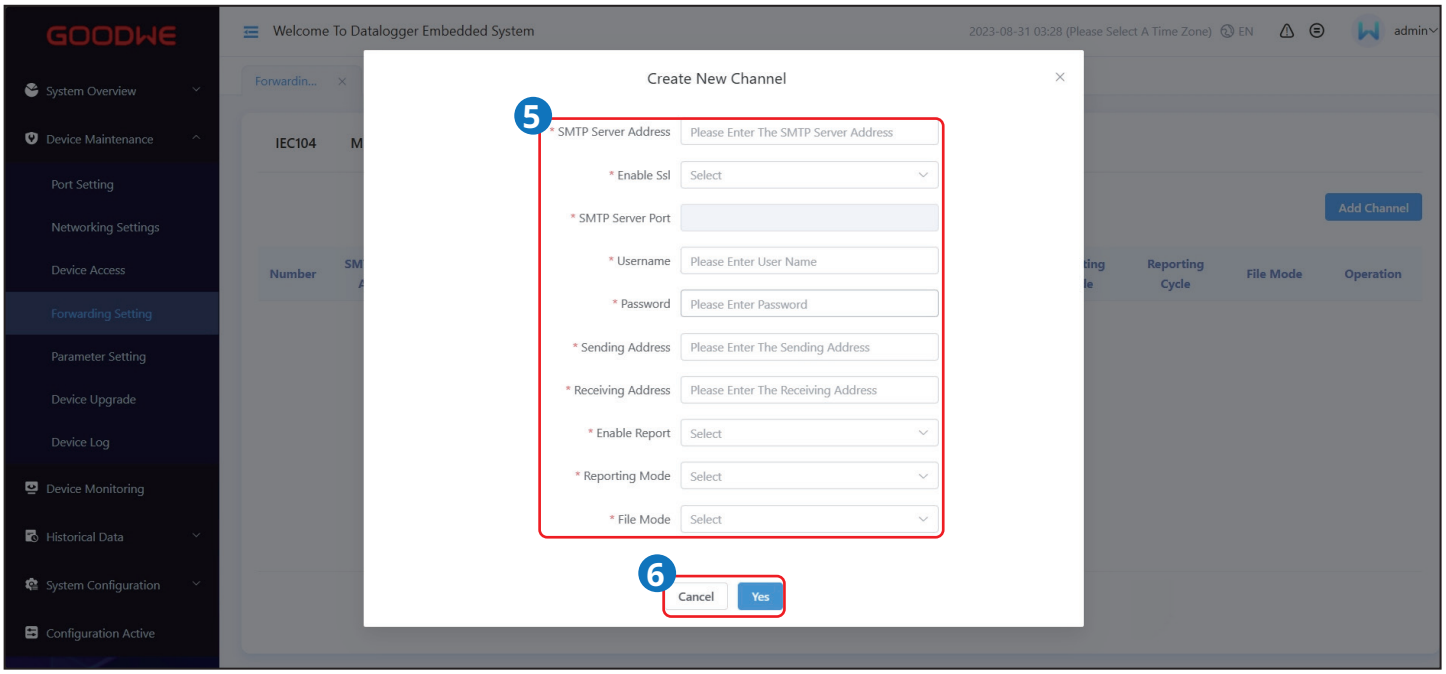
Parameter	Description
Channel Name	Supports to define device names based on the actual situation.
Local IP	Refers to the IP address of the EzLogger.
Local Port	Set it as the port number of EzLogger. The default value is "502".
Master IP	Set it as the IP address of the Modbus-TCP management system.
Master Port	Set it as the port number of the Modbus-TCP management system.
Point Table Selection	Select the imported device point table.
Modbus Address	Refers to the Modbus-TCP management system address.

8.4.7.3 Setting the Email Parameters

EzLogger supports sending email notifications to users, providing information about power generation, alarms, and equipment status of the power plant system.

Step 1: Follow below steps to set the email parameters.



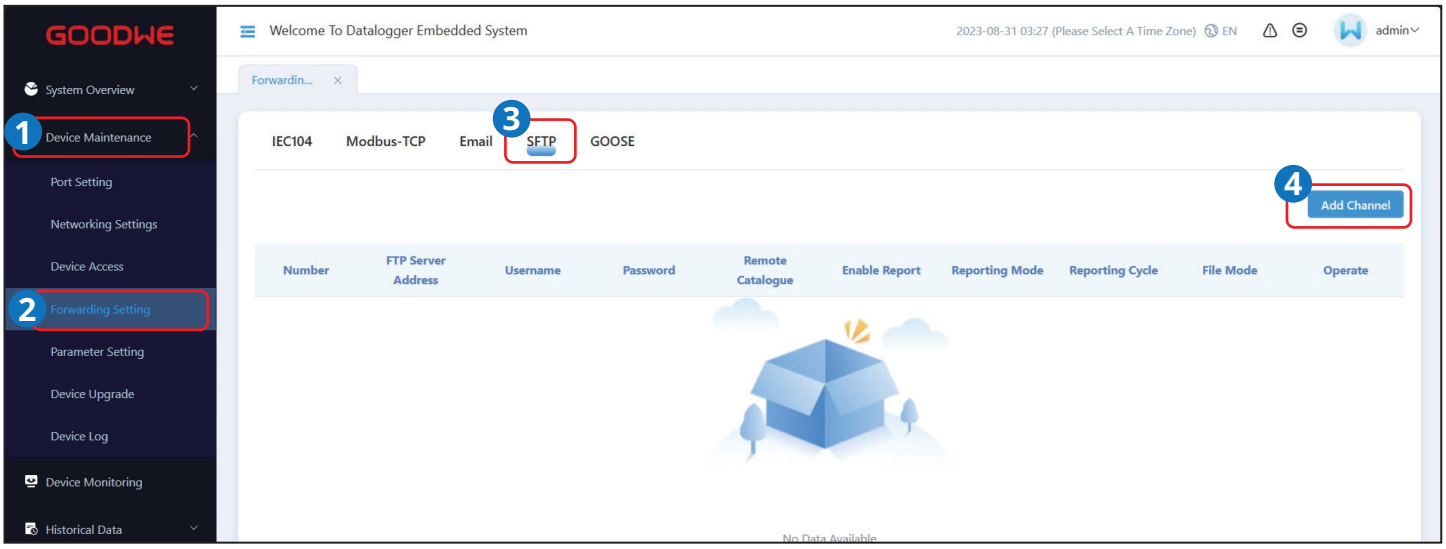


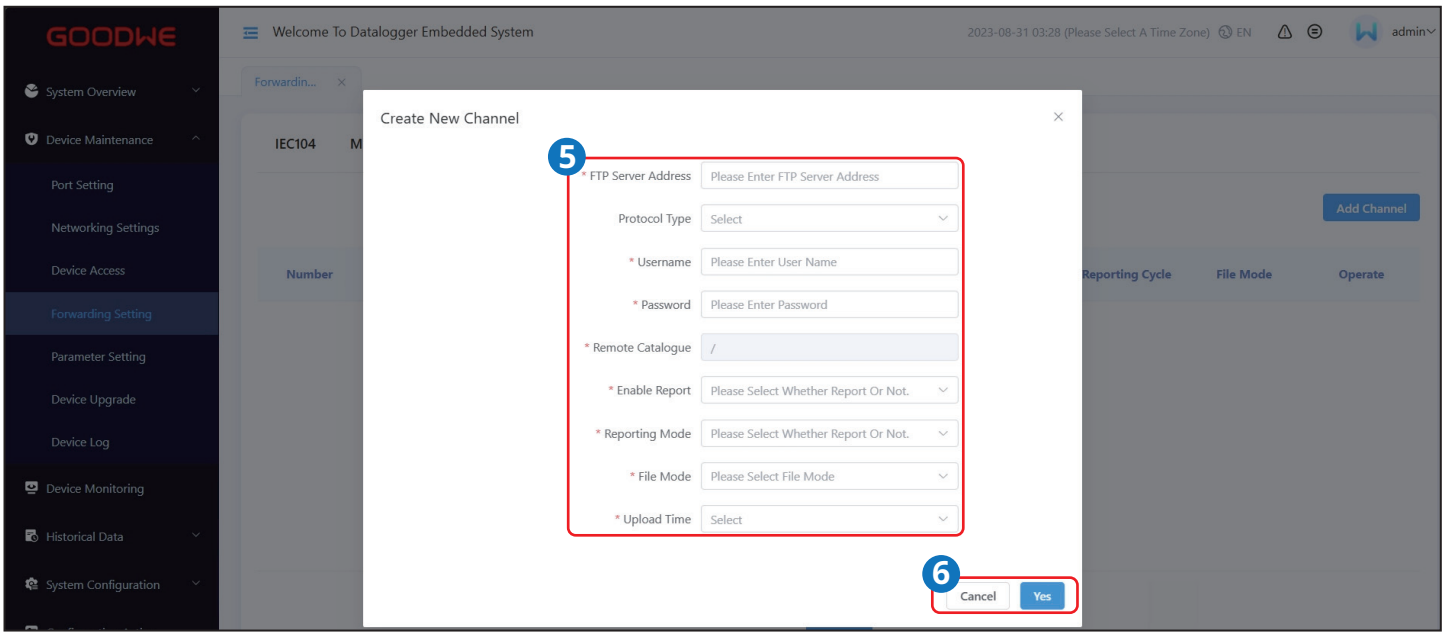
Parameter	Description
SMTP Server Address	Set the domain name or IP address of the SMTP server.
Enable SSL	Set whether to enable the SSL encryption.
SMTP Server Port	Set the port number of the SMTP server for email sending.
Username	Set the user name to log into the SMTP server.
Password	Set the password to log into the SMTP server.
Sending Address	Set the sending email's address.
Receiving Address	Set the receiving email's address.
Enable Report	Set whether to send the emails.
Reporting Mode	Set the email sending mode to "Cycle" or "Timing".
File Mode	Select the mode for the equipment data in the emails. Currently includes "Full Data," "Inverter Data," "Point Table Data," or "Relay Data".

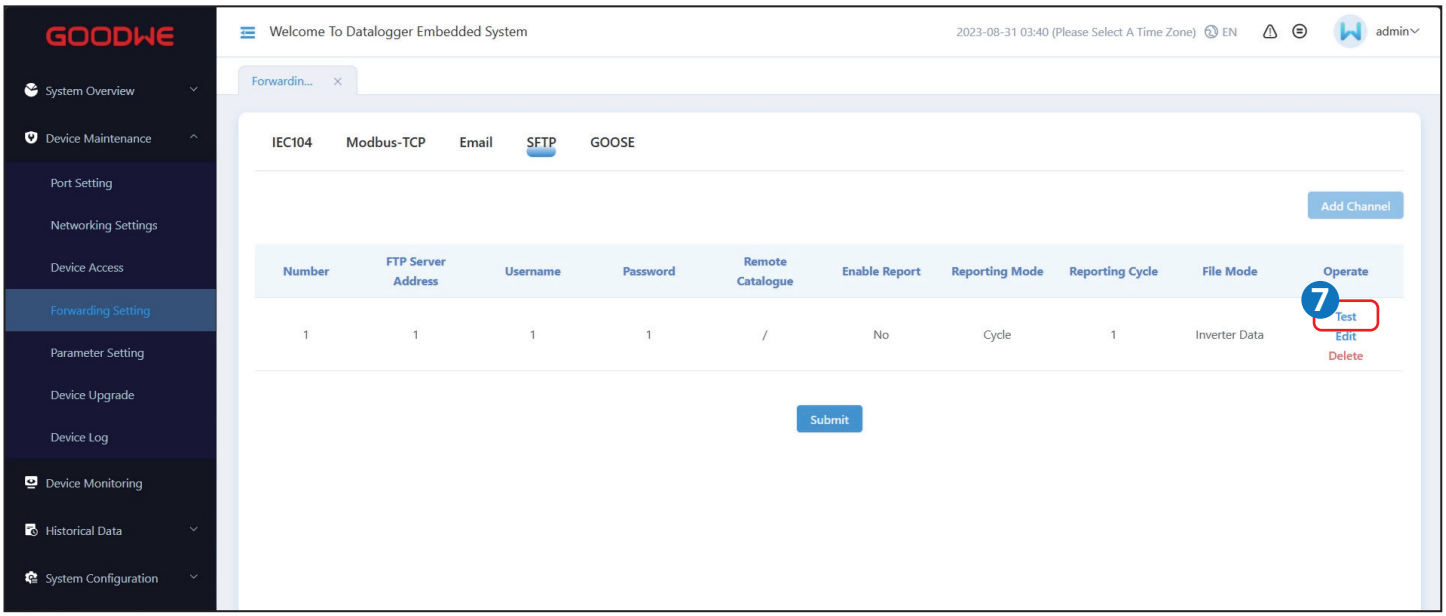
8.4.7.4 Setting the SFTP Parameters

The SFTP function is primarily used to connect to the third-party network management. EzLogger can report the configuration information and operational data of the managed power plant system via FTP. The EzLogger can be connected to the third-party network management after it is configured correspondingly.

Step 1: Follow below steps to set the SFTP parameters.





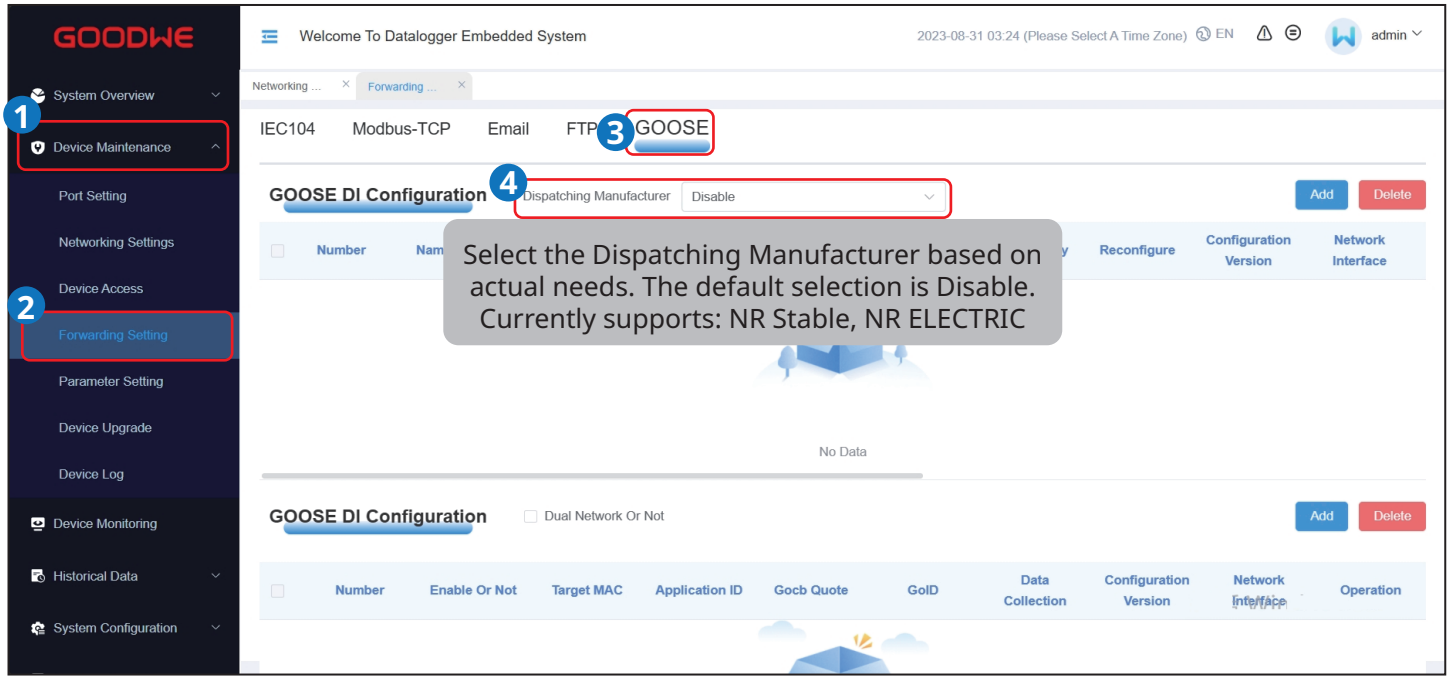


Parameter	Description
FTP Server Address	Set the domain name or IP address of the FTP server.
Username	Set the user name to log into the FTP server.
Password	Set the password to log into the FTP server.
Remote Directory	Create a subdirectory with the same name under the default directory specified by the FTP server, where the data will be uploaded.
Whether To Report	Set whether allows data reporting.
Reporting Mode	Set the mode for data reporting, currently supporting "Cycle" or "Timing".
Reporting Cycle	Set the cycle time to report the data.
File Mode	Set the type of data to be reported in the file. Options include "Full Data," "Inverter Data," "Point Table Data," or "Relay Data".

8.4.7.5 Setting GOOSE Parameters

Set GOOSE parameters when EzLogger is connected to the GoodWe management system via the GOOSE protocol. Consult the after-sales service for the specific parameter configuration.

Step 1: Follow below steps to set the parameters. The screenshot is for reference only. The actual parameters prevail.



9 Maintenance

9.1 Routine Maintenance

⚠ DANGER

When operating and maintaining the EzLogger, please ensure that the device is powered off. Operating the equipment while it is energized may result in equipment damage or electrical shock hazards.

Maintaining Item	Maintaining Method	Maintaining Period
System cleaning	Check for any foreign objects or dust in the air intake/exhaust vents.	Once 6 months or once a year
Electrical Connection	Check whether the cables are securely connected. Check whether the cables are broken or whether there is any exposed copper core.	Once 6 months or once a year
Environmental inspection	Check for the presence of high electromagnetic interference devices or heat sources around the EzLogger.	Once 6 months or once a year

9.2 System Maintenance (WEB)

9.2.1 Upgrading

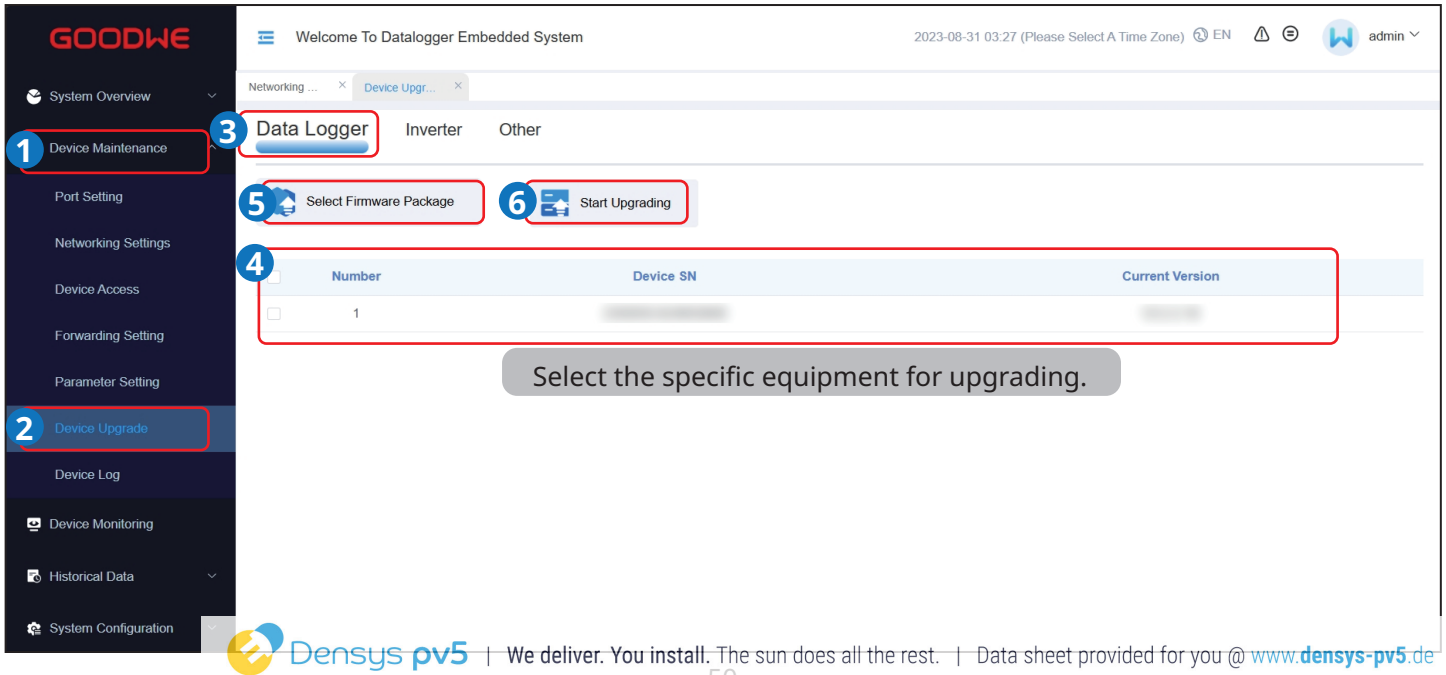
Upgrading via USB flash drive (only for EzLogger)

Step 1 Obtain the upgrading package from after-sales service and prepare a FAT32 USB flash drive (≤32G).
Step 2 Create a new folder named **collector** in the root directory of the USB flash drive. Put the upgrade folder into the collector folder.
Step 3 Insert the USB flash drive into the USB port of the EzLogger. The fault indicator turns to fast blinking after the EzLogger detects the update package and starts upgrading. If the fault indicator does not blink fast, check whether the upgrade package and USB flash drive are in proper state. The fault indicator turns to steady on or off after upgrading.
Step 4 The EzLogger will restart automatically after upgrading.

Upgrading via WEB

Step 1 Obtain the upgrading package from after-sales service.
Step 2 Keep the upgrading package on Local Disk of the computer and follow the steps below.
Step 3 The web will automatically turn to the login page after the upgrading.

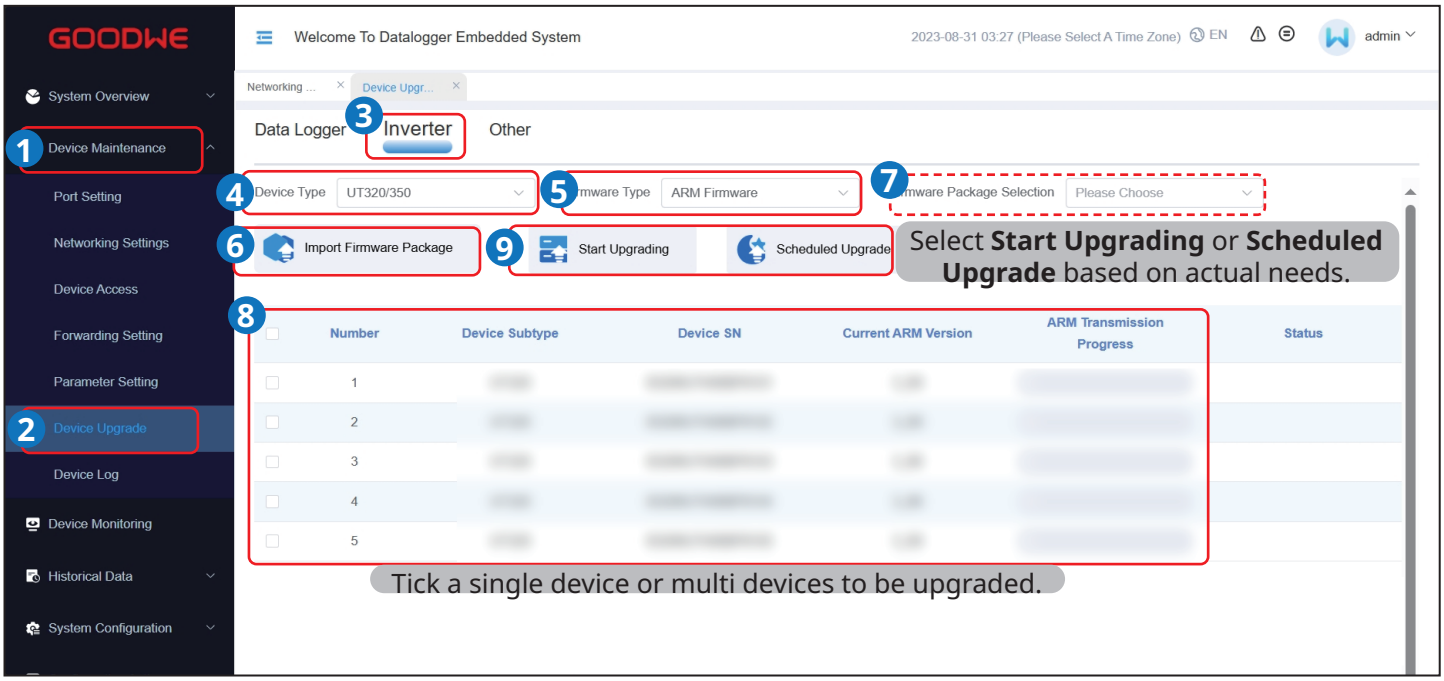
Upgrading EzLogger

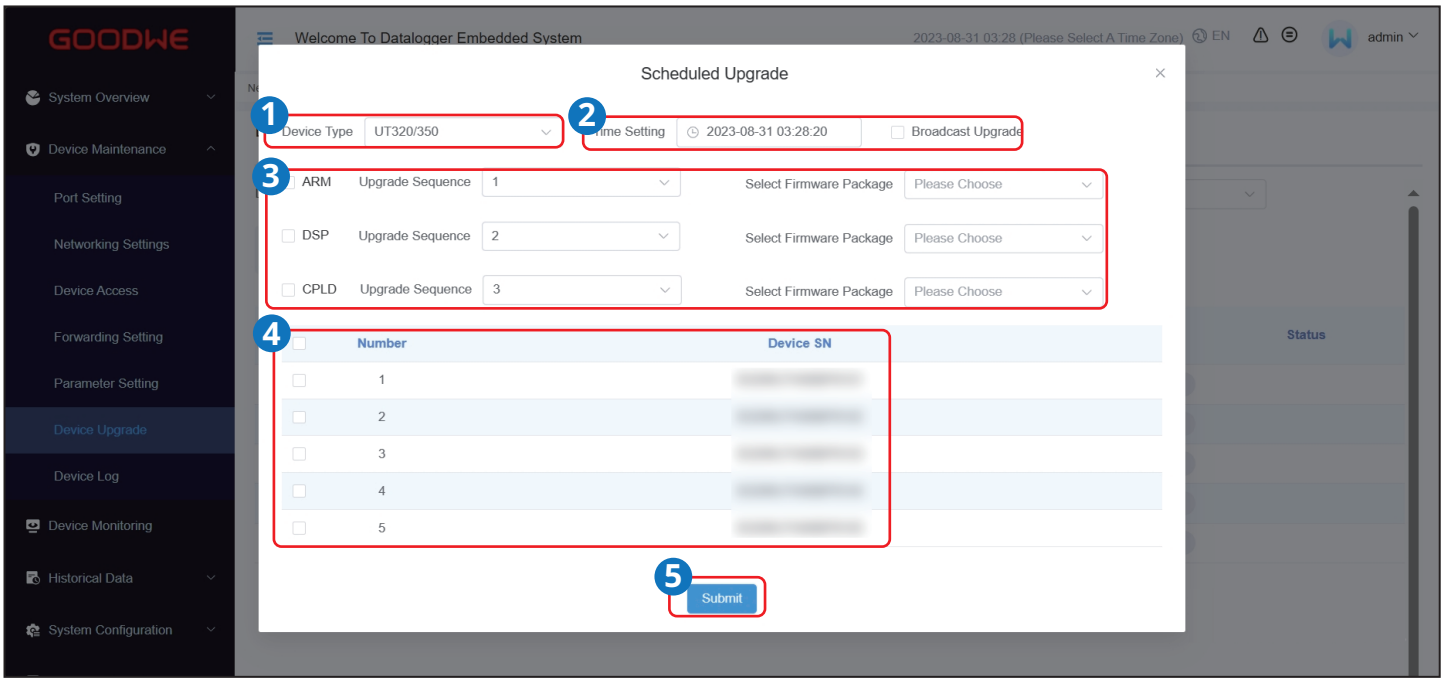


Upgrading Inverter

NOTICE

- Do not use Broadcast Upgrade if different inverters are mix connected.
- Ensure that the communication between the EzLogger and the inverter is normal.

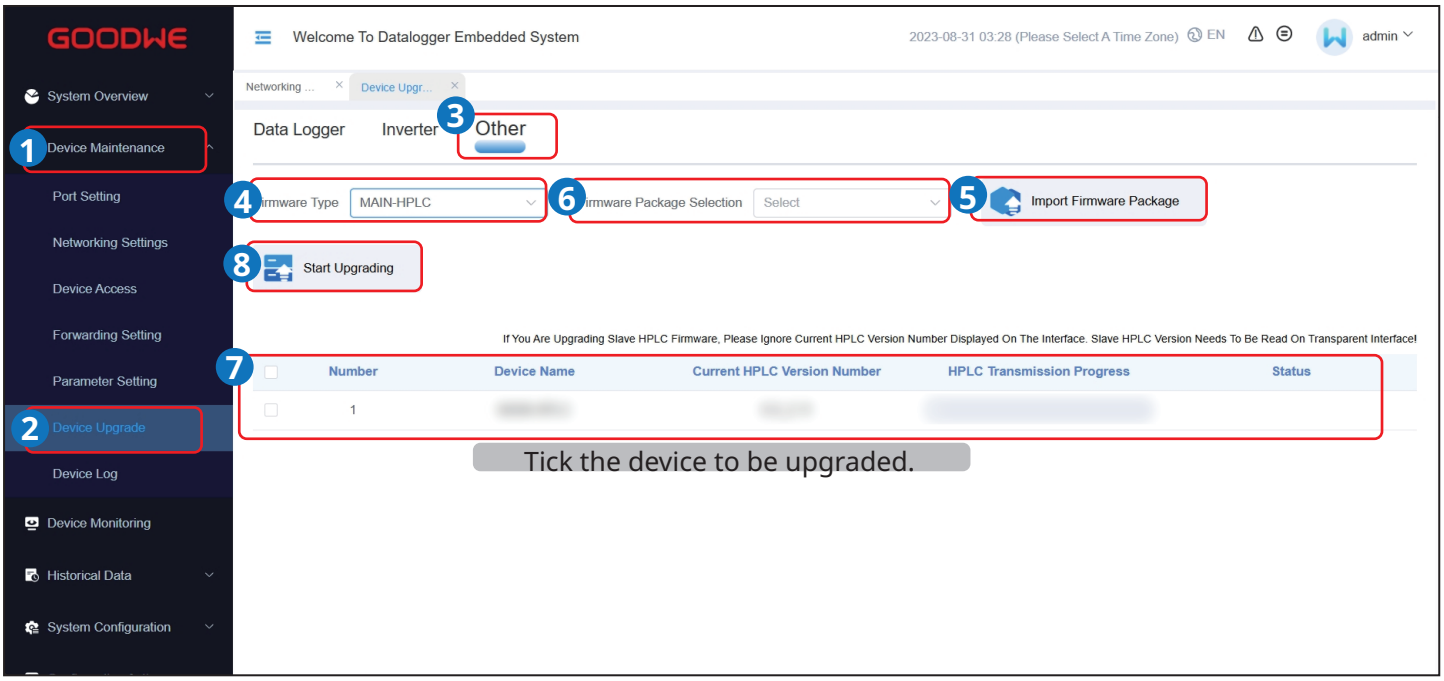




Upgrading Inverter

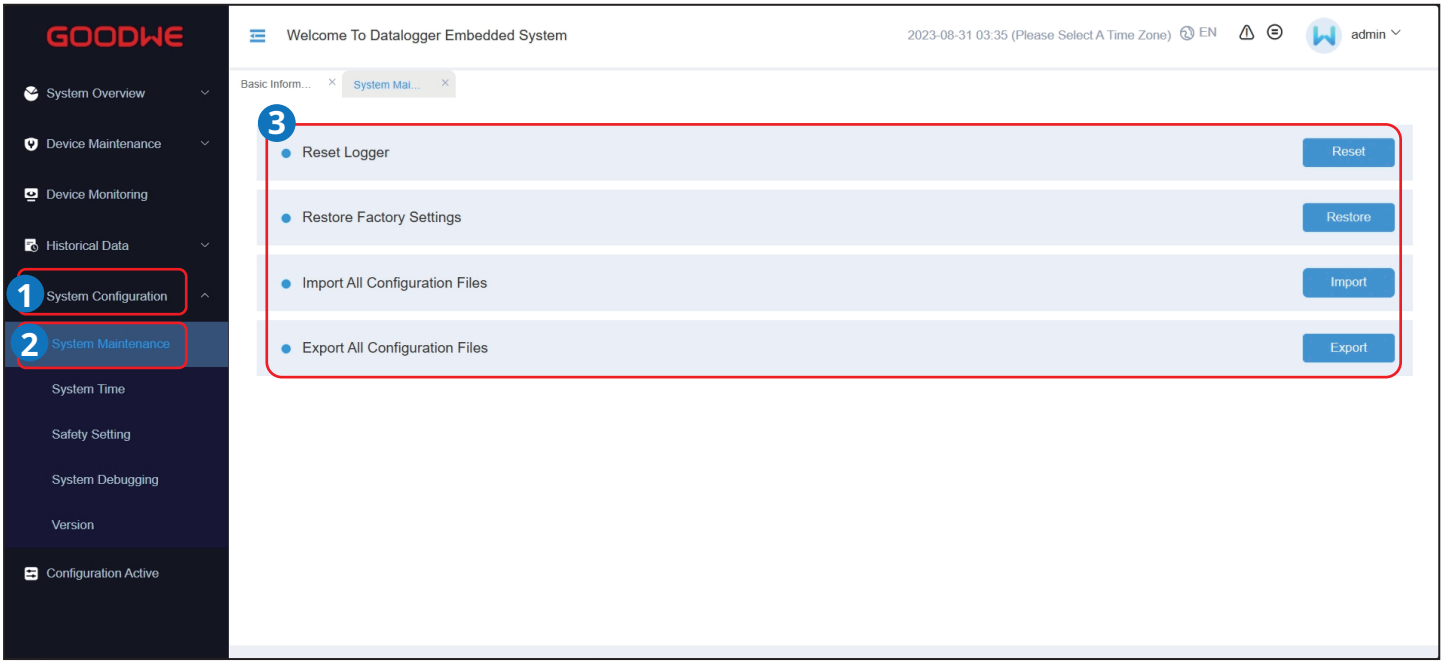
NOTICE

- Upgrades the firmware version of MAIN-HPLC, CAN-HPLC or CAN-EZIO when HPLC is used.
- Obtain the firmware package from the after sales service.



9.2.2 Maintaining the EzLogger System

Step 1: Maintain the EzLogger system as in following steps.

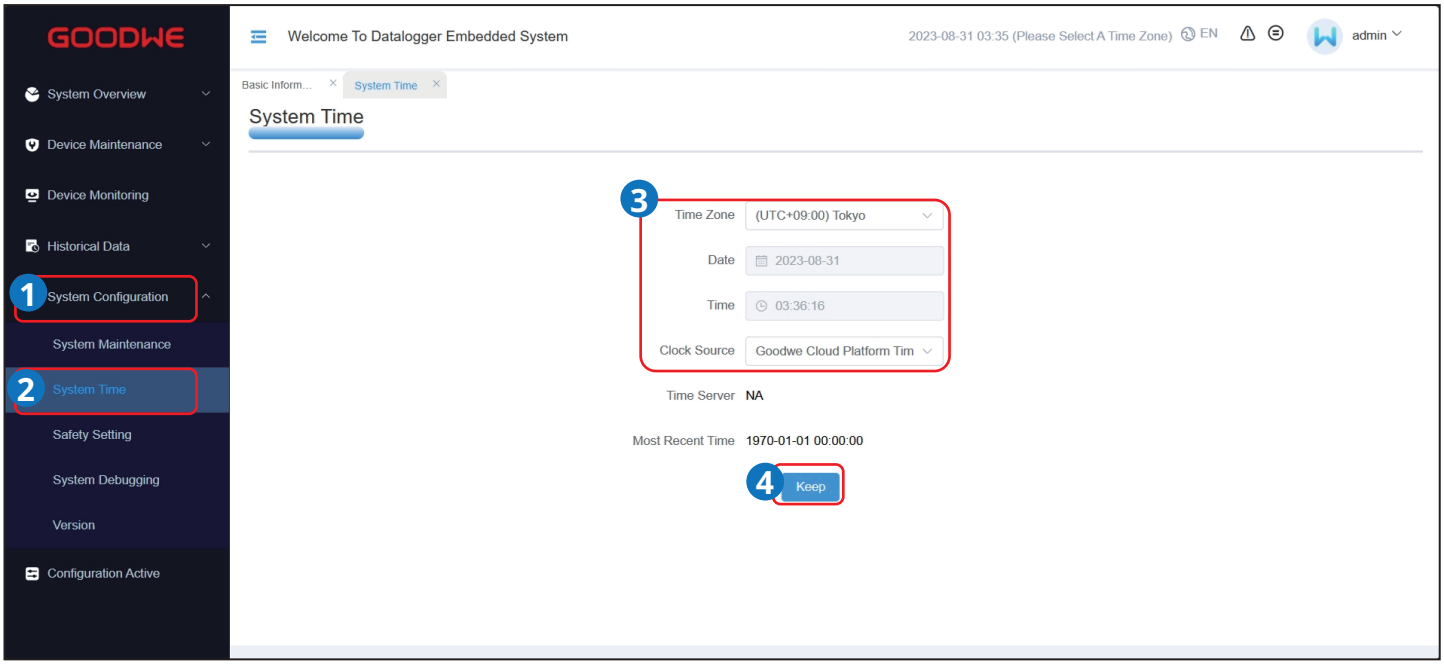


Parameter	Description
Reset Logger	Perform a system reset, and the EzLogger will automatically shut down and restart. The cache data, such as imported firmware packages will be cleared.
Restore Factory Settings	• Restore Factory Settings: clear device access information, forwarding information, login password. • Communication Configuration: restore network settings. • Data Collection: clear logs, historical alarms, historical data.
Import All Configuration Files	Before replacing the EzLogger, export the configuration file to the local storage.
Export All Configuration Files	After replacing the EzLogger, import the previously exported configuration file from the local storage to the new EzLogger. Once the import is successful, the EzLogger will restart, and the configuration file will take effect. Confirm that the device parameters are correctly configured.

9.2.3 Set System Time

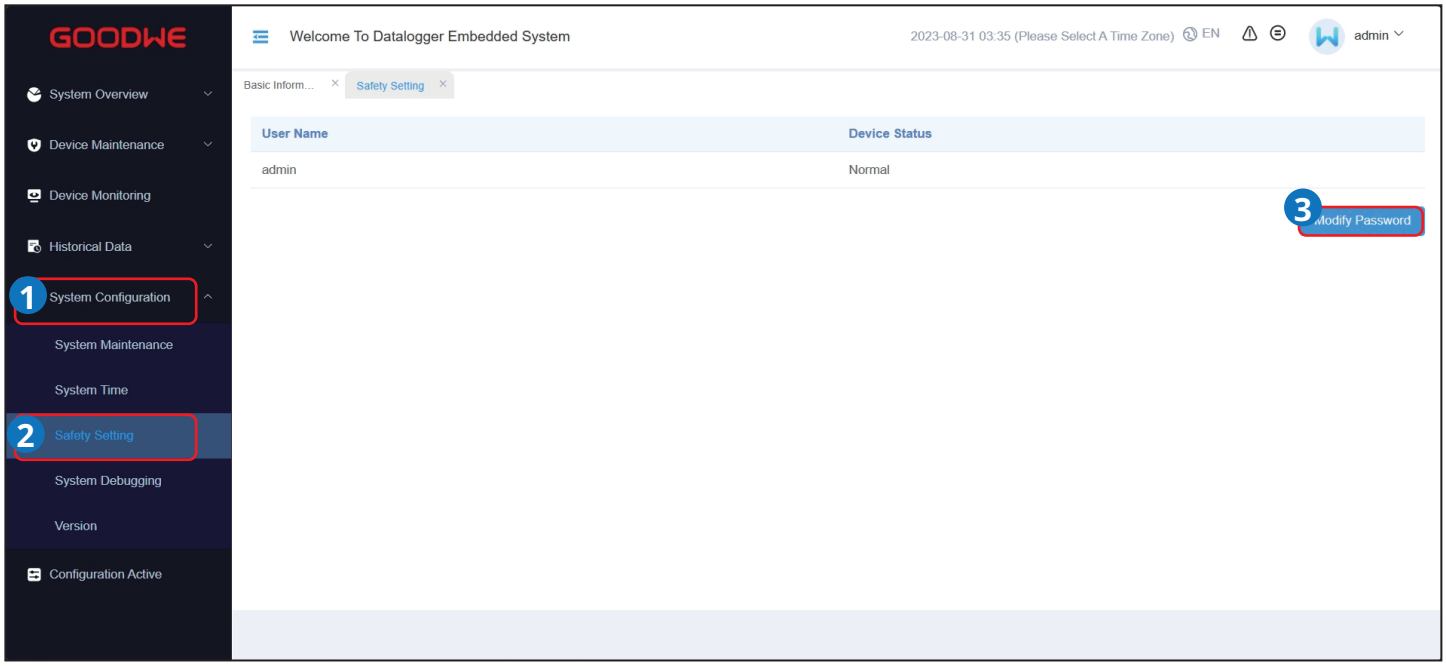
NOTICE
Modifying the date and time will affect the integrity of the system's power generation and performance data records. Please refrain from changing the time zone and system time arbitrarily.

Step 1: Set the system time according to the following operation.



Parameter	Description
Time Zone	The parameters can be modified when **Management System** is selected as **Clock Source**.
Date	
Time	
Clock Source	Se the clock source. Supported: NTP, IEC104, Modbus-TCP, Management System, Goodwe Cloud Platform Time Synchronization.

9.2.4 Change Login Password



9.3 Power Off

⚠DANGER

- Power off the equipment before operations and maintenance. Otherwise, the equipment may be damaged or electric shocks may occur.
- Delayed discharge. Wait for a minimum of 60 seconds until the components are discharged after power off.

(Optional) Step 1 When using PLC signal communication, turn off the upstream switch of the PLC cable connected the EzLogger.
Step 2 Unplug the power adapter from the socket.

9.4 Removing the EzLogger

⚠WARNING

- Ensure the equipment is powered off.
- Wear PPEs during operation.

Step 1 Disconnect all electrical connections of the equipment, including DC cables, communication cables, and protective ground wires.
Step 2 Remove the equipment.
Step 3 Store the equipment properly. If the equipment will be used again in the future, ensure that the storage conditions meet the requirements.

9.5 Disposing of the EzLogger

If the equipment cannot work any more, dispose of it according to the local disposal requirements for electrical equipment waste. Do not dispose of it as household waste.

9.6 Troubleshooting

Perform troubleshooting according to the following methods. Contact the after-sales service if these methods do not work.
Collect the information below before contacting the after-sales service, so that the problems can be solved quickly.
1. Equipment information like serial number, software version, installation date, fault time, fault frequency, etc.
2. Installation environment. It is recommended to provide some photos and videos to assist in analyzing the problem.
3. Utility grid situation.

No.	Fault	Cause	Solutions
1	The equipment is not able to power on.	The power input port of the equipment is not securely connected.	Reconnect the power input ports.
		The power adapter is not securely connected to the socket.	Reconnect the power adapter to the socket.
		The power adapter is malfunctioning.	Replace the power adapter.
		Equipment malfunction	Contact your distributor or after-sales service center.
2	ETH communication abnormal	Ethernet cable is not properly connected.	Reconnect the Ethernet cable.
		Failed IP address communication between the EzLooger and other equipments connected via Ethernet cable	Double-check and set the equipment's IP address to establish successful communication.
		Switch or router abnormal	Replace the switch or router.
		Equipment malfunction	Contact your distributor or after-sales service center.
		ETH port damaged	Connect the network cable to another ETH port.
3	RS485 communication abnormal	RS485 wiring abnormal	Check if the cable connections are correct and secure.
		RS485 communication parameter setting abnormal	Recheck and set the RS485 communication parameters.
		Equipment malfunction	Contact your distributor or after-sales service center.
4	PLC communication abnormal	PLC wiring abnormal	Ensure that the PLC cables are properly connected and the switches are closed correctly.
		PLC communication parameter setting abnormal	Check if the PLC communication mode is set correctly, including the equipment ID.
		Equipment malfunction	Contact your distributor or after-sales service center.

10 Technical Parameters

Technical Parameters	EzLogger3000U	EzLogger3000U-A
Device Management		
Max. Number of Connected Devices	200	200
Electrical		
AC Power Supply	100~240V, 50/60Hz	100~240V, 50/60Hz
DC Power Supply	24V	24V
Power Consumption (W)	≤27	≤27
Communication Interface		
LAN	2	2
PLC	1*PLC	1*HPLC
RS485	COM×8	COM×8
Digital/Analog Input/Output	DI×8, DO×4, AI×8	DI×8, DO×4, AI×8
PT100/PT1000	PT100×2, PT1000×2	PT100×2, PT1000×2
Active DO	12V, 100mA	12V, 100mA
Communication Protocol		
Ethernet	Modbus-TCP, IEC 60870-5-104	Modbus-TCP, IEC 60870-5-104
RS485	Modbus-RTU, IEC 60870-5-103 (standard), DL / T645	Modbus-RTU, IEC 60870-5-103 (standard), DL / T645
User Interface		
LED	LED×4	LED×4
WEB	Embedded Web	Embedded Web
USB	USB 2.0 x 1	USB 2.0 x 1
Mechanical		
Dimensions (W×H×D mm)	430*44*161	430*44*161
Weight (kg)	1.2	1.2
Installation Method	Wall Mounting, DIN Rail Mounting, Tabletop Mounting	Wall Mounting, DIN Rail Mounting, Tabletop Mounting
Environment		
Operating Temperature Range (℃)	-30 ~ +60	-30 ~ +60
Storage Temperature Range (℃)	-40 ~ +70	-40 ~ +70
Relative Humidity	5~95%	5~95%
Max. Operating Altitude (m)	5000	5000
Ingress Protection Rating	IP20	IP20

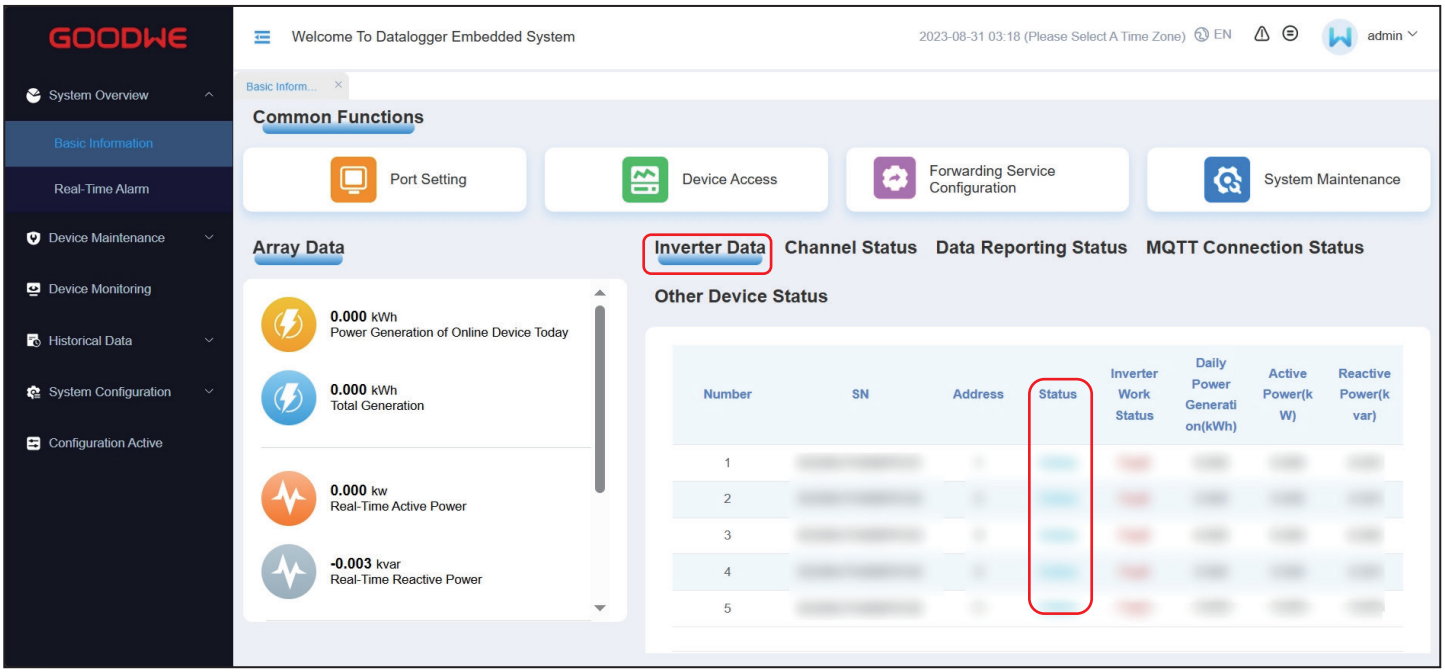
11 Appendix

11.1 FAQ

11.1.1 How to check the communicaiton status of the inverter?

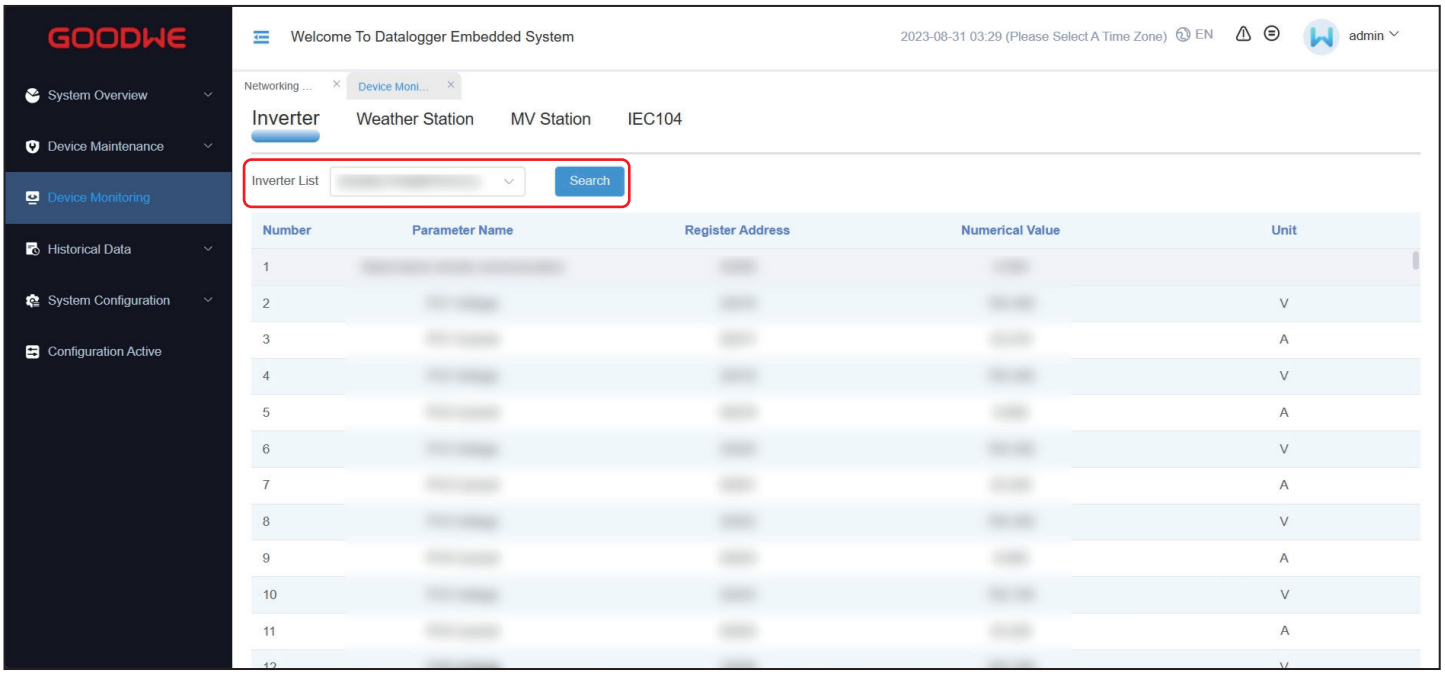
Method I

Login the web and check **Status** under **Inverter Data**. if the **Status** is **Online**, the inverter communiation status is normal.



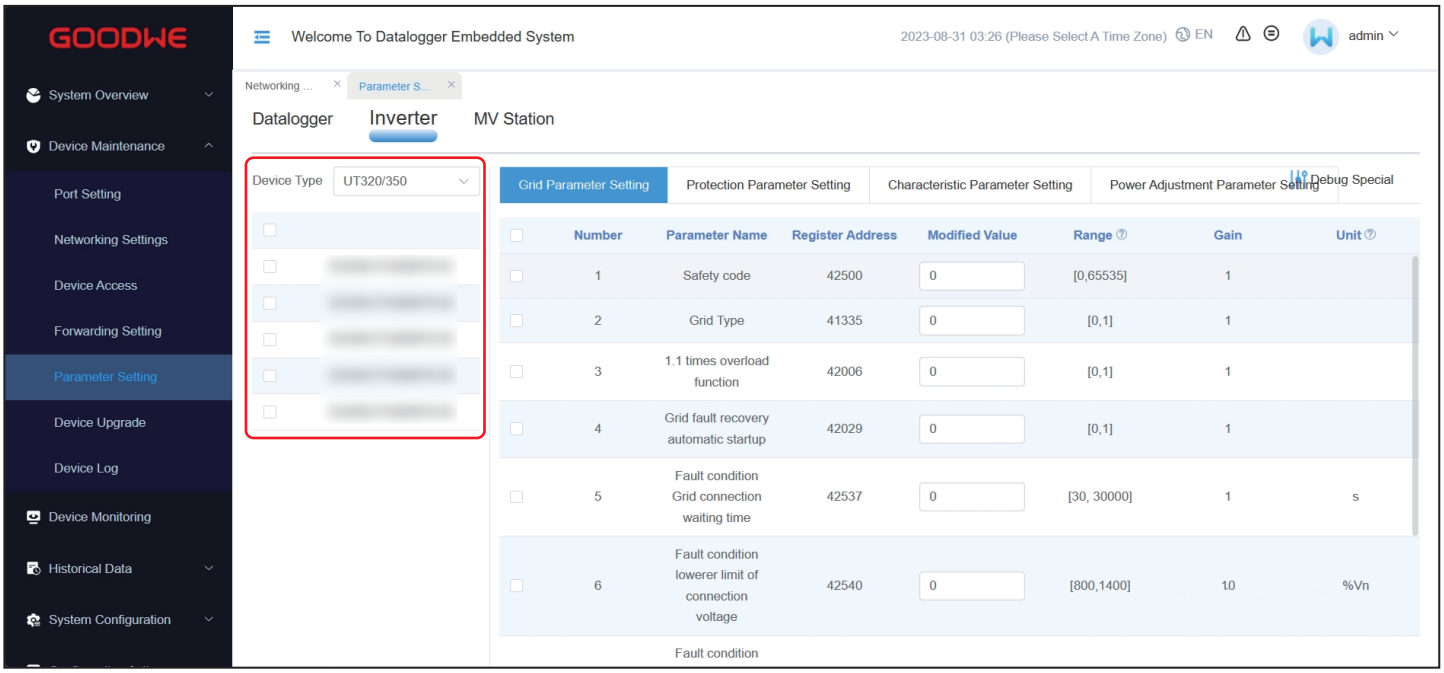
Method II

Login the web and search for specific inverter on the **Device Monitoring** page. If the inverter can be found, the inverter communiation status is normal.



Method III

Click **Device Maintenance > Parameter Setting > Inverter** to enter the inverter parameter setting. If the inverter paramerters can be checked and set, the inverter communiation status is normal.



11.2 Appendix1 Safety Country

NO.	Safety Code	Value	NO.	Safety Code	Value
Europe					
1	IT CEI 0-21	0	29	BG	37
2	IT CEI 0-16	67	30	CZ-A1	1
3	DE LV with PV	2	31	CZ-B1	136
4	DE LV without PV	79	32	CZ-A2	135
5	DE MV	78	33	DK1	158
6	ES-A	3	34	DK2	5
7	ES-B	133	35	AT-A	30
8	ES-D	80	36	RO-A	7
9	ES island	61	37	RO-D	94
10	BE	6	38	GB G98	8
11	FR mainland	10	39	GB G99-A	40
12	FR island 50Hz	23	40	GB G99-B	155
13	FR island 60Hz	24	41	GB G99-C	156
14	PL-A	13	42	GB G99-D	157
15	PL-B	128	43	G98/NI	21
16	PL-D	75	44	IE-16/25A	35
17	NL 16/20A	27	45	IE-72A	92
18	NL-A	20	46	IE ESB	150
19	NL-B	76	47	IE EirGrid	151
20	NL-C	144	48	PT-D	130
21	NL-D	145	49	EE	129
22	SE LV	41	50	NR	134
23	SE MV	77	51	FI-A	138
24	SK	57	52	FI-B	139
25	HU	59	53	FI-C	140
26	CH	66	54	FI-D	141
27	CY	69	55	EN 50549-1	142
28	GR	4	56	EN 50549-2	143
Oceania					
57	Australia A	9	67	AU VIC	73
58	Australia B	85	68	AU Ergon≤30K	25
59	Australia C	86	69	AU Energex≤30K	26
60	AU L	15	70	AU Ergon>30K	62
61	AU WAPN	50	71	AU Energex>30K	63
62	AU MicroGrid	51	72	AU Endeavor Energy	81
63	AU Horizon	68	73	Newzealand	44
64	AU SAPN	70	74	Newzealand:2015	93
65	AU Ausgrid	71	75	NZ GreenGrid	58
66	AU Essential	72			
Asia					
76	China-B	11	91	India CEA	152
77	China Higher	22	92	Philippines	34
78	China Highest	39	93	JP 50Hz	52
79	China Utility	29	94	JP 60Hz	53

80	China-242-S	131	95	Sri Lanka	60
81	China-242-H	132	96	IndiaHigher	54
82	China 230V	513	97	Israel LV	83
83	Taiwan	36	98	Israel MV	137
84	Hong Kong	74	99	Israel HV	91
85	Thailand MEA	17	100	Vietnam	89
86	Thailand PEA	18	101	Malaysia LV	153
87	Mauritius	19	102	Malaysia MV	95
88	Korea	28	103	DEWA LV	55
89	Korea-MV	90	104	DEWA MV	56
90	India	31			
America					
105	Argentina	82	126	IEEE1547 240Vac	47
106	US 208Vac Default	96	127	IEEE1547 230/400Vac	64
107	US 240Vac Default	97	128	US ISO-NE 240Vac	115
108	Mexico 440Vac Default	117	129	US ISO-NE 480Vac	116
109	US 480Vac Default	108	130	USA 208VacHECO 14HM	106
110	US CA 208Vac	98	131	USA 240VacHECO 14HMO	107
111	US CA 240Vac	99	132	PR 208Vac	118
112	US CA 480Vac	109	133	PR 240Vac	119
113	US HI 208Vac	104	134	PR 480 Vac	120
114	US HI 240Vac	105	135	Brazil 220Vac	16
115	US HI 480Vac	110	136	Brazil 208Vac	146
116	US Kauai 208Vac	111	137	Brazil 230Vac	147
117	US Kauai 240Vac	112	138	Brazil 240Vac	148
118	US Kauai 480Vac	113	139	Brazil 254Vac	149
119	USA 208VacCA SDGE	100	140	Brazil 127Vac	43
120	USA 24@VacCA SDGE	101	142	Barbados	38
121	USA 208VacCA PGE	102	143	Chile BT	42
122	USA 240VacCA PGE	103	144	Chile MT-A	87
123	US ISO-NE 208Vac	114	145	Chile MT-B	88
124	IEEE1547 208Vac	45	146	Colombia	121
125	IEEE1547 220Vac	46			
Africa					
147	South Africa LV	14	148	Ghana	154
Others					
149	60Hz Default	12	153	IEC61727 50Hz	84
150	50Hz Default	32	154	IEC61727 60Hz	65
151	60Hz 127Vac Default	48	155	Warehouse	33
152	50Hz 127Vac Default	49			

GoodWe Official Website

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