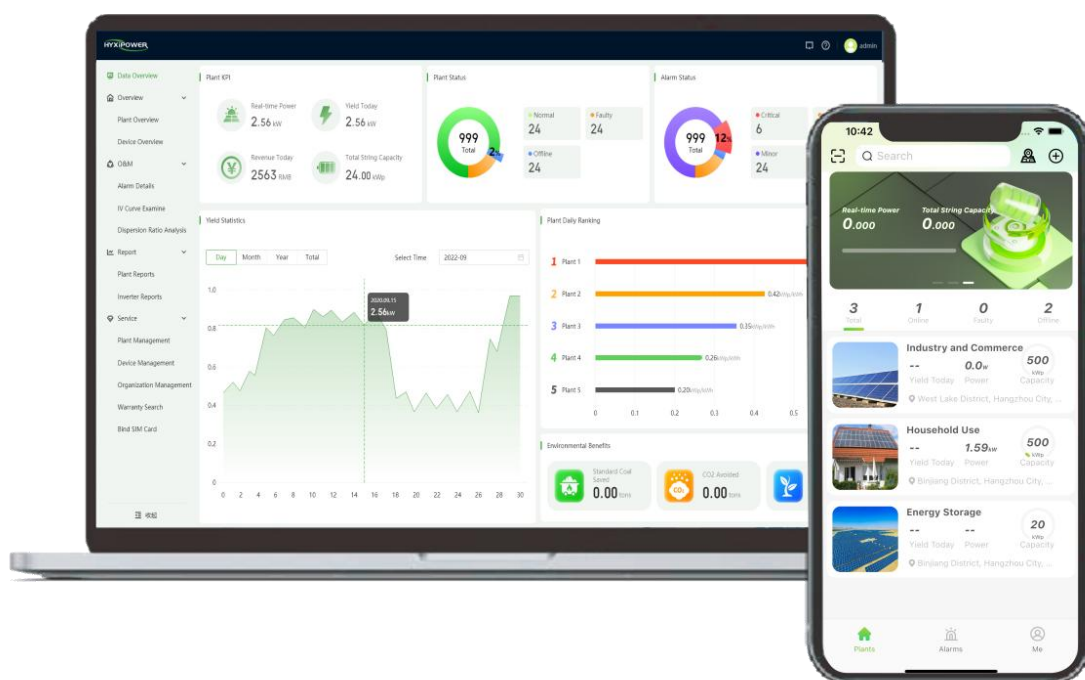




User Manual

HYXiPOWER Local Debugging APP



Version : UM-02

Product information is subject to change without notice

Copyright Notice

2024 Copyright © Zhejiang Hyxi Technology Co., Ltd. All rights reserved.

Without the authorization of our company, no unit or individual may copy this document in whole or in part without permission, and may not disseminate it in any form.

TRADEMARK



All other trademarks mentioned in this document are trademarks of Zhejiang Hyxi Technology Co., Ltd.

All other trademarks or registered trademarks mentioned in this document belong to their respective owners.

Zhejiang Hyxi Technology Co., Ltd.

Address: 9-10F, Building 3, Jiuyao Commercial Center, Zhuantang Street, Xihu District, Hangzhou, Zhejiang

Postal Code: 310012

Phone: 0571-87822520

Email: support@hyxipower.com

Website: www.hyxipower.com

Contents

1 About the Manual	- 3 -
1.1 Manual Content	- 3 -
1.2 Applicable Content	- 3 -
1.3 Applicable Requirements	- 3 -
1.4 Target Readers	- 3 -
1.5 Manual Usage	- 3 -
2 How to Start Using	- 4 -
2.1 Overview	- 4 -
2.2 Language Settings	- 4 -
3 Near-End Debugging Function Description	- 5 -
3.1 WiFi Config	- 5 -
3.2 Download of Upgrade Package	- 8 -
3.3 Near-End Debugging	- 9 -
3.3.1 Near-End Login	- 9 -
3.3.2 Near-End Homepage	- 11 -
3.3.3 Alarm	- 12 -
3.3.4 Communication Details	- 13 -
3.3.5 Communication Maintenance	- 13 -
3.3.6 Device Management	- 15 -
3.3.7 Device Maintenance	- 15 -
3.3.8 Quick Settings	- 16 -
3.3.9 Debug	- 22 -
3.3.10 Sub-1G Signal Strength Detection	- 22 -
3.3.11 IPS Self-Test	- 25 -
4 Contact Us	- 27 -
Appendix 1 Device Debugging Parameters	- 28 -

1 About the Manual

1.1 Manual Content

This manual introduces the functions and operational procedures of the HYXiPOWER Near-End Debugging APP to facilitate users in operating and managing the HYXiPOWER Near-End Debugging APP, meeting user needs.

1.2 Applicable Content

The HYXiPOWER Near-End Debugging APP is applicable to users who have purchased Hyxi GPRS/4G, WIFI, Ethernet version DCS or DMU, inverters, etc. The plant data monitored by the DCS or DMU is uploaded to the HYXiPOWER Near-End Debugging APP for viewing and can be logged in through the APP end. It is used for monitoring plants, thereby enabling the visualization and management of plant data.

1.3 Applicable Requirements

iPhones: Search for "HYXiPOWER" in the Apple App Store;

Non-Chinese Mainland Android Google Play: Search for "HYXiPOWER";

Chinese Mainland Android phones: Scan the QR code and open the download package with the default browser.



1.4 Target Readers

This manual is mainly aimed at professional technicians and end-user owners who access, manage, and operate the HYXiPOWER Near-End Debugging APP. It requires a certain level of network knowledge and familiarity with the HYXiPOWER's related products.

1.5 Manual Usage

Please read the manual carefully before using the product and keep the manual in an easily accessible place.

The content of the manual will continue to be updated and corrected, but there may be slight discrepancies or errors with the actual product. Users should refer to the actual product purchased and can download the latest version of the user manual through the **Service&Support_Download Center at hyxipower.com** or obtain it through sales channels.

2 How to Start Using

2.1 Overview

The HYXiPOWER Near-End Debugging APP is a new generation of near-end debugging tools developed by Hyxi Technology. This product integrates data monitoring, network configuration, control maintenance, and installation debugging, which can monitor the operating status of communication devices and inverter devices in real time, assisting installers to quickly complete the on-site installation and debugging work of device.

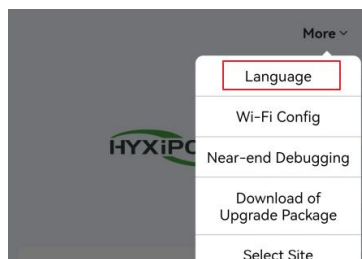
2.2 Language Settings

Function Introduction

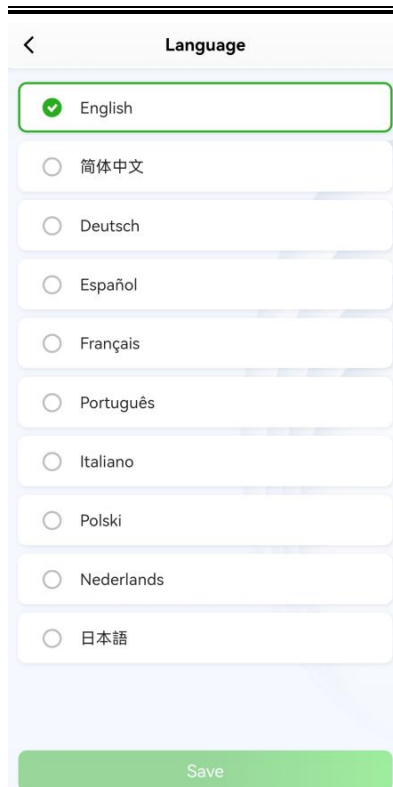
This section introduces how to set the language.

Operation Steps

Step 1: Click on the 'More' button in the upper right corner of the login page, select the 'Language' option, and click on the corresponding language to complete the language switch.



Step 2: Click the selection box to switch to the desired language, and click 'Save' to complete the switch.



3 Near-End Debugging Function Description

3.1 WiFi Config

Function Introduction

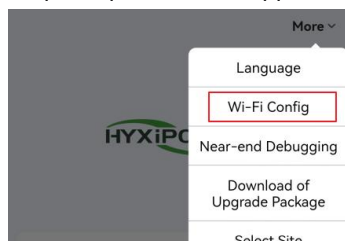
Connect to the cloud platform network through the WiFi of the communication device.

Prerequisites

1. Customers have purchased Hyxi's communication device and inverter device on site;
2. There is a strong signal of the Internet wireless WiFi or Ethernet coverage on the customer's site, or a 4G card is inserted into the communication device;

Operation Steps

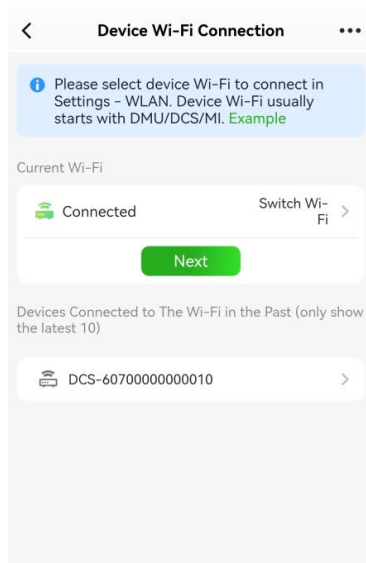
Step 1: Open the APP application, click 'More' -> 'WiFi Config', and connect to the device WiFi;



Step 2: In the phone settings_Wireless Local Area Network, find the WiFi hotspot with the format DMU-XXXXXXXXXXXXXXXXX or DCS-XXXXXXXXXXXXXXXXX or MI-XXXXXXXXXXXXXXXXX, enter the WiFi password to connect, and the fixed password is: **hyxi0607**; (The password cannot be modified and should not be disclosed)



Step 3: After the WiFi connection is successful, the current connected WiFi will be automatically displayed, click 'Next';



Step 4: Display the communication status between the current communication device and the router or base station to the cloud platform; fill in the domain name and port of the cloud platform server, communication mode, and corresponding communication method configuration parameters as needed, and initiate network connection configuration;

<
SN:60700000000010
...





Current Device
Router
Cloud Platform

Connection Domain

*Cloud Platform Address hyx-mop-int.cloud-dahua.com >

Communication mode for connecting to the cloud platform server

*Communication Mode Wireless Connection Mode >

Wireless connection mode parameter configuration
(please ensure device is within the coverage range of public Wi-Fi)

*Wi-Fi Name Mi >

Wi-Fi Password >

Start Configuration

Parameters	Operating Instructions
Cloud Platform Address	The domain name is generally the default www.hyxcloud.com ; it can be changed to other addresses;
Communication Mode Selection	Choose between wireless connection mode and wired connection mode, and display the corresponding WiFi or 4G configuration for the type of currently connected device, whether to support wired configuration;
Wireless Connection Mode Parameter Configuration (WiFi Configuration)	Enter the name of the environmental WiFi and the corresponding WiFi password; support for saving the most recent two sets of WiFi configurations;
Wireless Connection Mode Parameter Configuration (4G Configuration)	For overseas operators, enter the operator settings, operator name, and operator password as needed;
Wired Connection Mode Parameter Configuration	The default is DHCP mode, that is, automatic IP acquisition mode, automatically displaying the corresponding MAC address and IP address; If you choose not to automatically acquire the IP switch, you need to enter the network IP address, network subnet mask, network default gateway, and network DNS;



Step 5: After the configuration is successful, click the 'Complete' button to return to the login homepage; if the configuration fails, a prompt with possible reasons for failure will appear, and you can click 'Complete' to reconfigure.

3.2 Download of Upgrade Package

Function Introduction

Download upgrade packages for device upgrades and perform real-time upgrades on devices.

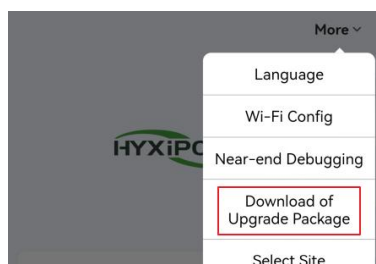
Prerequisites

1. The service provider Hyxi has maintained the latest version of the upgrade package in the firmware system.
2. Network conditions: Firmware download must be under internet conditions; while near-end upgrades must be under the WiFi connected to the communication device.

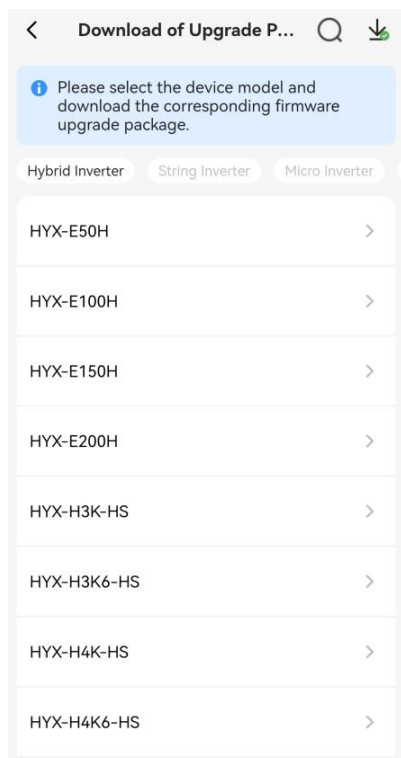
Operation Steps

Firmware Download Steps:

Step 1: Open the mobile APP and select 'Download of Upgrade Package' from the 'More' options on the login page.



Step 2: The pop-up page will display all specific models under each device type. Click on a model to show all corresponding upgrade packages and click the 'Download' button.



Step 3: On the Download of Upgrade Package page, you can also use the 'Search' button at the top to search for the target upgrade package by name.

Step 4: On the top right 'Downloaded List' page, it will display the list of downloaded upgrade packages; click the 'Delete' button at the bottom to remove unnecessary upgrade packages.

3.3 Near-End Debugging

Installation personnel can perform debugging, configuration, and upgrade operations on devices at the customer site without a network by connecting to the device's WiFi.

3.3.1 Near-End Login

Function Introduction

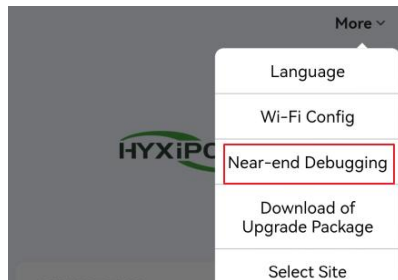
Connect to the device via WiFi and log in to the near-end homepage.

Prerequisites

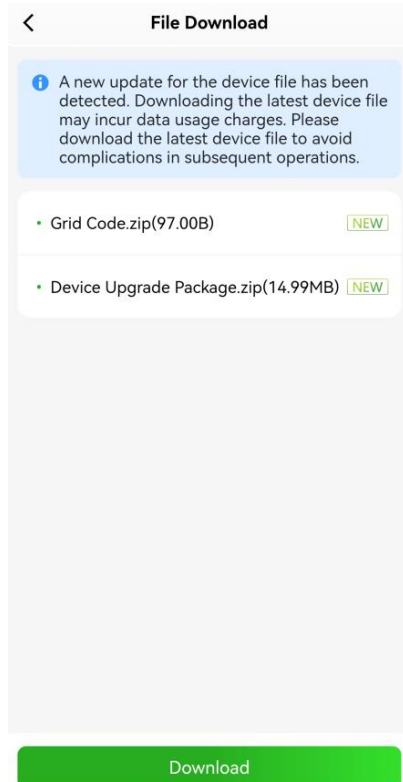
1. The communication device automatically turns on WiFi after power-up, and it will automatically turn off after 5 minutes. The ways to turn on WiFi again include: power cycling or pressing the RST button three times in a row.
2. Connect to the WiFi emitted by the corresponding communication device through 'Phone Settings - Wireless LAN', and please turn on the phone's location during this process.;

Operation Steps

Step 1: Open the mobile APP and select 'Near-end Debugging' from the 'More' options on the login page.

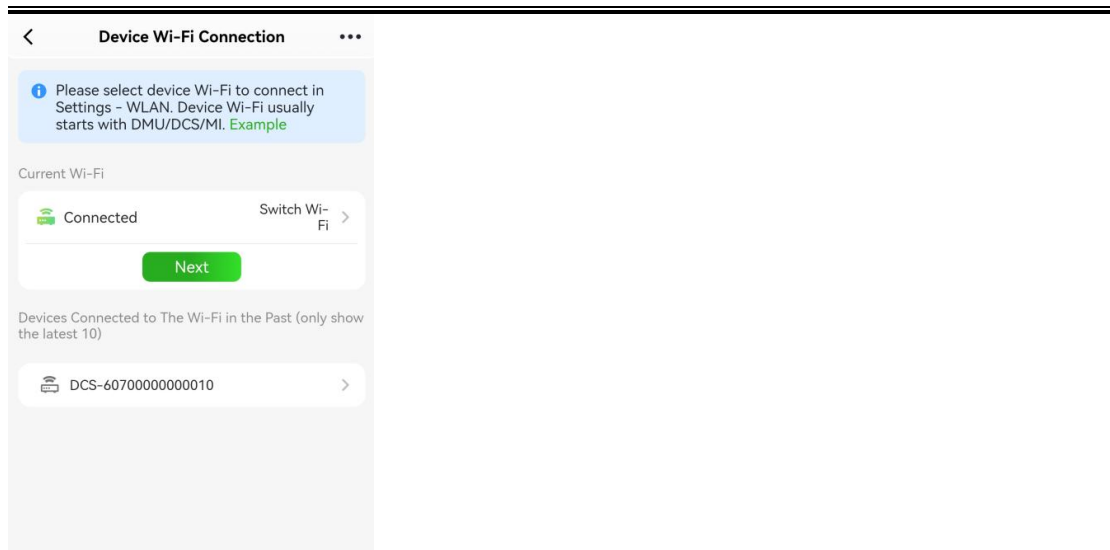


Step 2: If the user's phone is connected to the internet, the system will automatically determine whether it needs to download the latest grid protection files and device upgrade package files, and it must be downloaded before entering the device WiFi selection page.

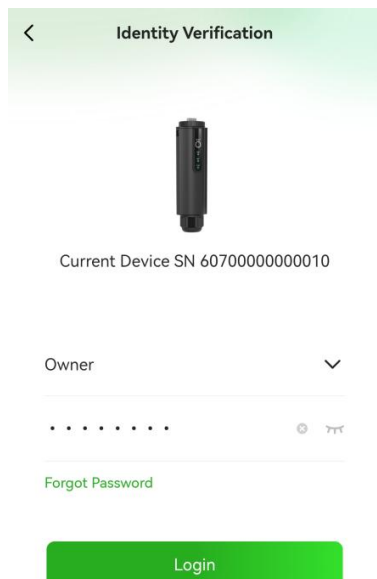


Step 3: In the phone settings 'Wireless Local Area Network', find the WiFi hotspot with the format DMU-XXXXXXXXXXXXXXX or DCS-XXXXXXXXXXXXXXX or MI-XXXXXXXXXXXXXXX, enter the WiFi password to connect, and the fixed password is: **hyxi0607**; (The password cannot be modified and should not be disclosed).

Step 4: After the WiFi connection is successful, the current connected WiFi will be automatically displayed, click 'Next' to enter the device identity verification page.



Step 5: Select the current role (Owner/Installer), enter the password, and enter the near-end debugging homepage.



3.3.2 Near-End Homepage

Function Introduction

The near-end homepage is the entry point for various function menus of near-end debugging, and it displays key indicators of the connected communication device, such as SN and signal strength.

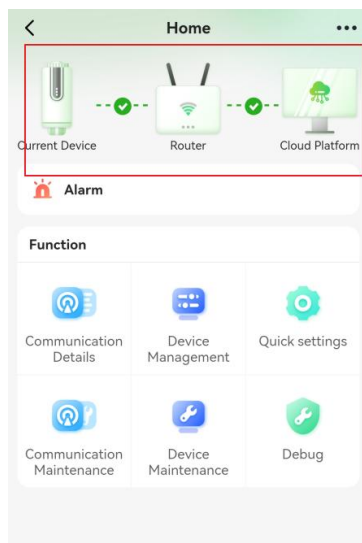
Prerequisites

1. Already connected to the communication device via WiFi and entered the near-end homepage.

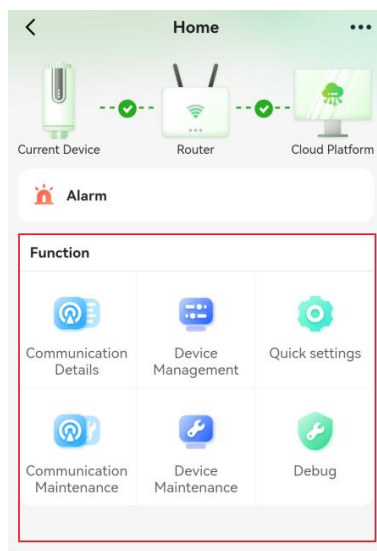
Operation Steps

Step 1: The top of the debugging homepage displays the SN and signal strength of the connected

communication device.



Step 2: The homepage displays the entry points for current Alarm, Communication Details, Communication Maintenance, Device Management, Device Maintenance, Quick Settings, and Debug, with specific operations as follows.



3.3.3 Alarm

Function Introduction

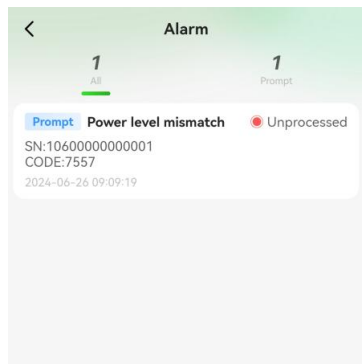
Current alarms allow you to view the current alarm data of the device.

Prerequisites

1. Already connected to the communication device via WiFi and entered the near-end homepage.

Operation Steps

Step 1: Click on 'Alarm' to display the alarm list information, including alarm level, alarm name, alarm status, device SN, and alarm time, etc.



3.3.4 Communication Details

Function Introduction

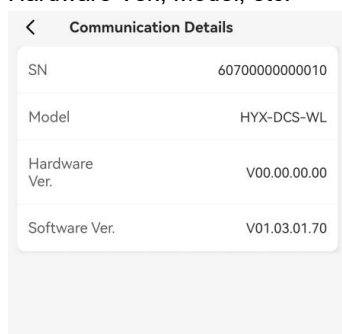
Communication details allow you to view the basic information of the communication device.

Prerequisites

1. Already connected to the communication device via WiFi and entered the near-end homepage.

Operation Steps

Step 1: Click on 'Communication Details' to display basic information including SN, Software Ver., Hardware Ver., Model, etc.



3.3.5 Communication Maintenance

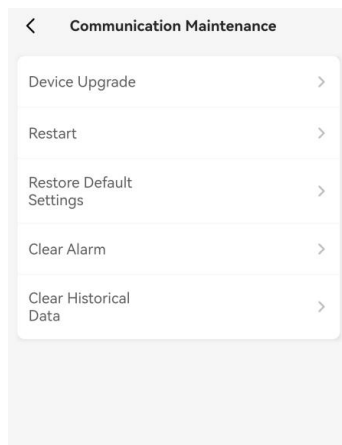
Function Introduction

Communication maintenance allows you to perform control operations on communication devices, mainly including Restart, Clear Alarm, Device Upgrade, Restore Default Setting, etc.

Prerequisites

1. Already connected to the communication device via WiFi and entered the near-end homepage.

Operation Steps



Step 1: Click 'Restart' to shut down and restart this device.

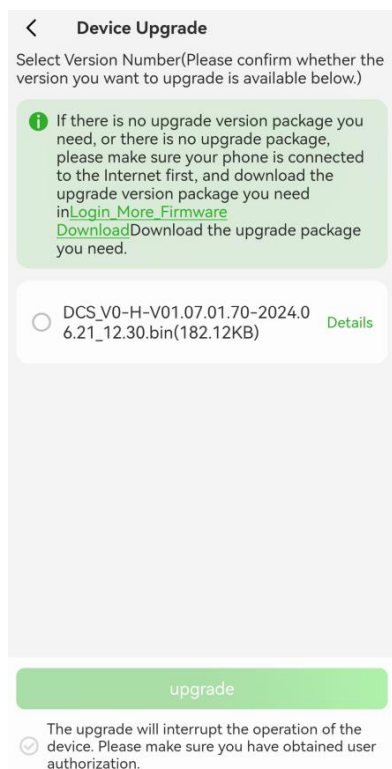
Step 2: Click 'Restore Default Settings' to restore all device settings to the original factory state.

Step 3: Click 'Clear Alarms' to clear the real-time alarm data on the device.

Step 4: Click 'Clear Historical Data' to clear all historical data on the device.

Device Upgrade Steps:

Step 1: Click 'Device Upgrade', a pop-up window will appear to select the desired firmware upgrade package, and click the 'Upgrade' button.



Step 2: Since the upgrade process is lengthy, you cannot perform other operations during this process. You can view the overall upgrade progress, as well as the transmission process and upgrade progress of each chip.

Step 3: If the upgrade is successful, a pop-up prompt will appear; if the upgrade fails or times out, possible reasons will be prompted, and you can upgrade again.

3.3.6 Device Management

Function Introduction

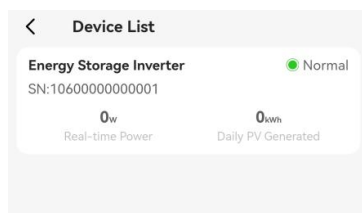
Device Management allows you to view the basic information and real-time data of the inverter devices under the communication device.

Prerequisites

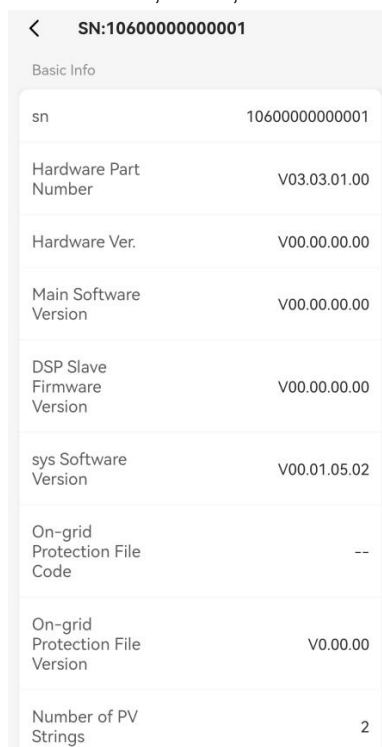
1. Already connected to the communication device via WiFi and entered the near-end homepage.

Operation Steps

Step 1: Click on 'Device Management' on the near-end homepage to display the device list information, including Device Type, SN, Online/Offline Status, Real-time Power, and Daily PV Generated.



Step 2: Click on the device list item to enter the device details page, displaying Basic Info including Hardware Ver, Model, and Real-time Data such as Voltage, Current, and Power.



3.3.7 Device Maintenance

Function Introduction

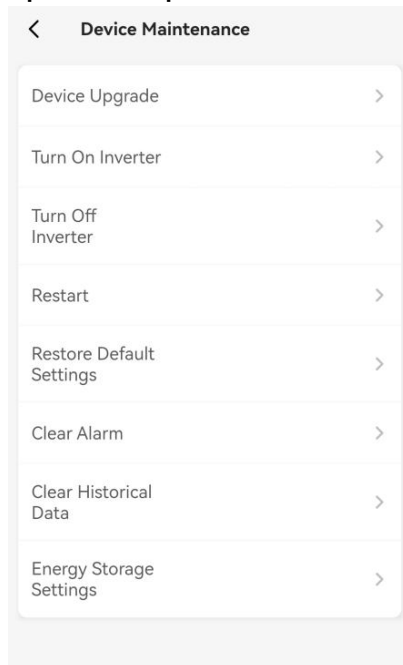
Device Maintenance allows you to perform individual and batch maintenance, and the control operations mainly include Turn Off Inverter, Turn On Inverter, Restart, Device Upgrade, and Restore Default

Settings.

Prerequisites

1. Already selected the communication device via WiFi and clicked on 'Device Maintenance' on the Near-End homepage.

Operation Steps



Step 1: Display the device selection page, the list information includes Device Type, SN, Online/Offline status, click the 'Device Maintenance' button to display the operation entries for, Turn On Inverter, Turn Off Inverter, Restart, Device Upgrade, and Restore Default Settings.

Step 2: Click 'Turn On Inverter' to adjust the device from the stopped state to the on state.

Step 3: Click 'Turn Off Inverter' to adjust the device from the running state to the off state.

Step 4: Click 'Restart' to shut down and restart this device.

Step 5: Click 'Restore Default Settings' to restore all device settings to the original factory state.

Step 6: Click 'Clear Alarm' to clear the real-time alarm data on the device.

Step 7: Click 'Clear Historical Data' to clear all historical data on the device.

Step 8: Click 'Device Upgrade', a pop-up window will appear to select the desired firmware version for upgrade, and click 'Upgrade'; the specific process is the same as the **'Device Upgrade' Steps in 3.3.5 'Communication Maintenance'**.

3.3.8 Quick Settings

Function Introduction

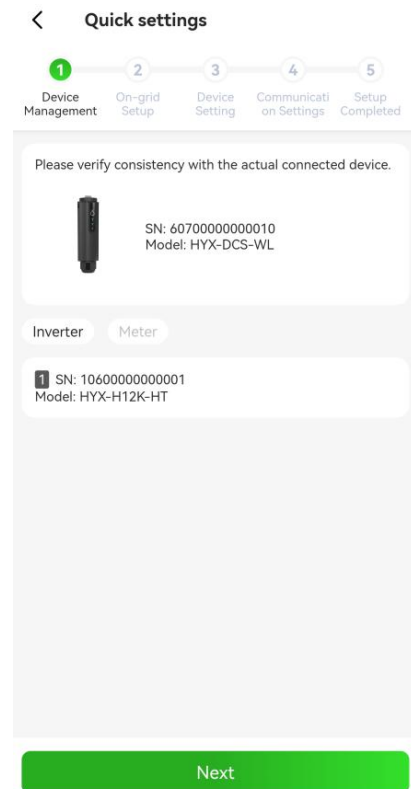
Quick Settings allow for the quick commissioning and use of inverter devices, including On-grid Setup, Device Management, Device Setting, and Communication Settings.

Prerequisites

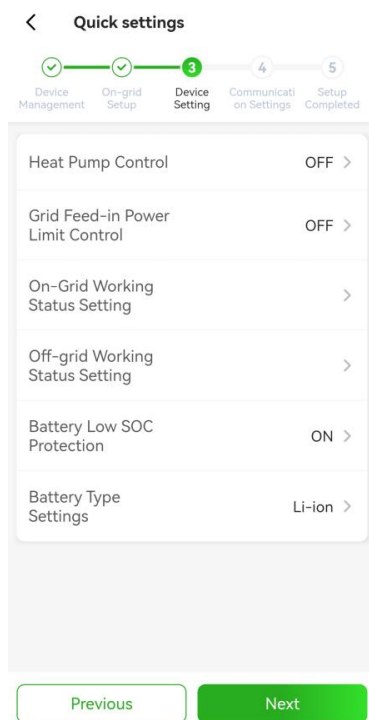
1. Already connected to the communication device via WiFi and entered the 'Quick Settings' page on the near-end homepage.

Operation Steps

Step 1: Device Management - View the currently connected communication devices and the connected inverter devices. For DMU, you need to manually add or scan and add the SN of the microinverter for device networking; if networking fails, either re-network or delete the inverter. For meters, you need to configure the installation location, SN, and meter ratio parameters.

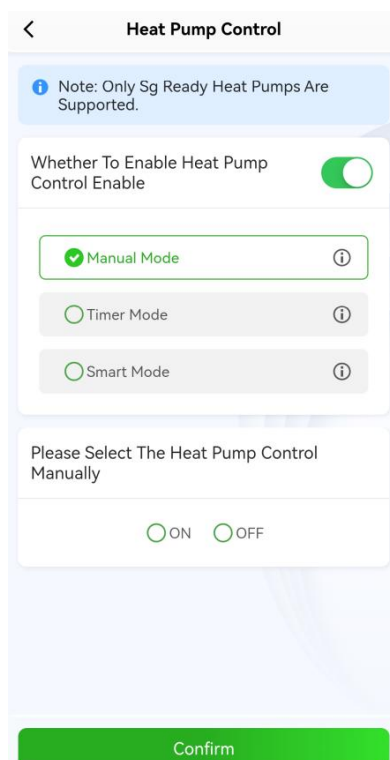


Step 2: On-Grid Setup - Set the device time zone, correctly select the on-grid standard code according to local policies and regulations, and based on the on-grid standard code or international region, file version, select the corresponding protection file, and the parameters and settings within the file will be displayed;
Step 3: Device Settings - For Hybrid Inverters, this step is displayed, and it can also be skipped; other inverter devices can set the Grid Feed-in Power Limit Control in this page.



Specific operation process is as follows:

Process 1: Select the Heat Pump Control button, click to enable or disable Heat Pump Control, choose Manual Mode (manually control the opening or closing of the heat pump) / Timing Mode (set the timing for the heat pump to open) / Smart Mode (smart power-saving mode, users define the threshold, and the inverter automatically controls the switch of the heat pump when the conditions are met), click to confirm and save;



Heat Pump Control

Note: Only Sg Ready Heat Pumps Are Supported.

Whether To Enable Heat Pump Control Enable

Manual Mode

Timer Mode

Smart Mode

Intelligent Mode Parameter Setting

Minimum Operating Time for Heat Pump (minutes)

-

10

+

Every Time The Heat Pump Starts It Will Work For At Least This Set Length Of Time, Preventing The Heat Pump From Starting And Stopping Frequently, With Highest Priority

Feedin Threshold

Automatically Turns On The Heat Pump When The

Confirm

- 19 -

Add Cycle

Note: The unset time periods are in self-consumption mode by default.

00:00

~

24:00

Backup(Green)

+

Monday

Tuesday

Wednesday

Thursday

Friday

Saturday

Sunday

Mode Description

Self-consumption
The default mode for unset time periods is self consumption mode. Try to make energy self-circulating to achieve the purpose of purchasing as little energy as possible from grid.

Backup(Green)
The battery is in backup power mode. Try not to use battery to ensure it always has enough backup. Use solar power as much as possible to keep the battery in backup power mode, and do not allow purchasing energy from grid to charge battery.

Backup(Grid)
The battery is in backup power mode. Try not to use battery to ensure it always has enough backup. Feed-in to grid to ensure it always has enough backup. Feed-in to grid to ensure it always has enough backup.

Confirm

Process 3: Select the Mode Setting, configure the minimum SOC threshold during the execution of different working modes;

Mode Setting

Self-consumption ⓘ

Minimum SOC(%)
60

Backup(Green) ⓘ

Minimum SOC(%)
60

Backup(Grid) ⓘ

Minimum SOC(%)
10

Feed-in ⓘ

Minimum SOC(%)
10

Feedin power(W)

0

Process 4: Select the Off-grid Working Status Setting, and configure the minimum SOC threshold during the execution of the off-grid mode;

Off-grid Working Status Setting

Off-grid Working Status: System will switch to this state automatically when on-grid→off-grid. In the off-grid state, solar and battery power will be used to power to the backup load as much as possible until depleted, and then automatic shutdown will occur.

Minimum SOC(%)
10

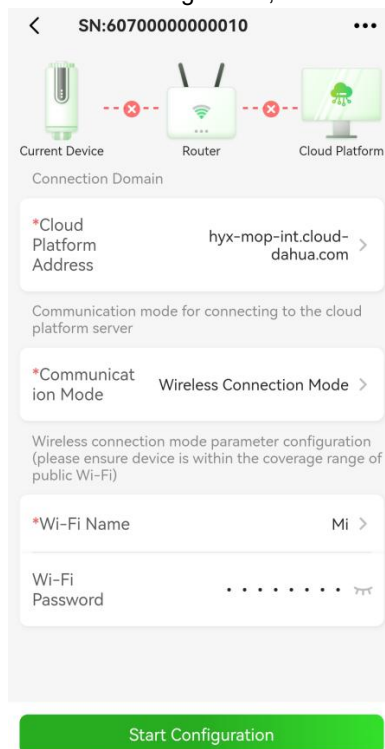
Process 5: Select the Battery Low SOC Protection Settings, and configure whether to enable or disable the battery low soc protection, the default is enabled;



Process 6: Select the Battery Type Setting, and choose the correct configuration item from Lithium battery, Lead-acid battery, or No battery.

Step 4: Communication Settings:

Display the communication status between the current communication device and the router or base station to the cloud platform; fill in the Cloud Platform Address, Communication Method, and corresponding communication method configuration parameters as needed, and initiate network connection configuration;



Parameters	Operating Instructions
Cloud Platform Address	The domain name is generally the default www.hyxcloud.com ; it can be changed to other addresses;
Communication Mode Selection	Choose between wireless connection mode and wired connection mode, and display the corresponding WiFi or 4G configuration for the type of currently connected device, whether to support wired configuration;
Wireless Connection Mode Parameter Configuration (WiFi Configuration)	Enter the name of the environmental WiFi and the corresponding WiFi password; support for saving the most recent two sets of WiFi configurations;

Wireless Connection Mode Parameter Configuration (4G Configuration)	For overseas operators, enter the operator settings, operator name, and operator password as needed;
Wired Connection Mode Parameter Configuration	The default is DHCP mode, that is, automatic IP acquisition mode, automatically displaying the corresponding MAC address and IP address; If you choose not to automatically acquire the IP switch, you need to enter the network IP address, network subnet mask, network default gateway, and network DNS;

Step 5: Set Completion- Self-check the completion of each step of the quick settings.

On-Grid Standard Code Display, whether the setting is successful;

The number of connected inverters, whether the addition is successful;

The number of connected meters, whether the addition is successful;

The setting of the energy storage working mode is successful;

Communication Settings: If the configuration is successful, the network connection status is displayed; if the configuration fails, a possible reason for the failure is prompted, and you can click the return button to reconfigure the communication.

3.3.9 Debug

Function Introduction

Detailed debugging allows you to adjust each parameter in the on-grid protection file.

Prerequisites

1. Already connected to the communication device via WiFi and entered the 'Debug' page on the near-end homepage.

Operation Steps

Step 1: Refer to **Step 1 in Section 3.3.8** to reselect the On-grid Standard code.

Step 2: If you need to modify a parameter setting in the on-grid protection file, you need to find the corresponding parameter according to the classification of grid parameters, power adjustment, protection parameters, and characteristic parameters, click on the parameter, modify it within the required range of the parameter, and click 'Confirm' to complete the re-issuance of the parameter.

3.3.10 Sub-1G Signal Strength Detection

Function Introduction

For Sub-1G version microinverter devices, signal detection more intuitively displays specific signal information for professional installers, assisting in making decisions for the installation location of DMU.

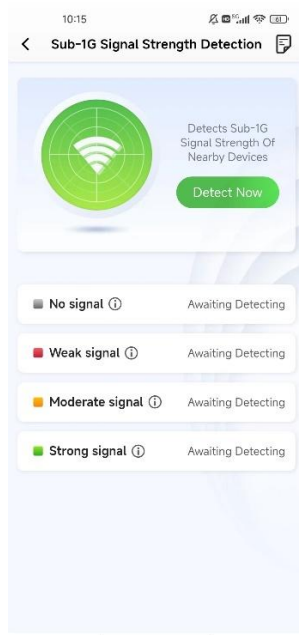
Prerequisites

1. Already connected to the communication device via WiFi and entered the 'Debug' page on the near-end homepage.
2. The communication device is a Sub-1G version microinverter device.

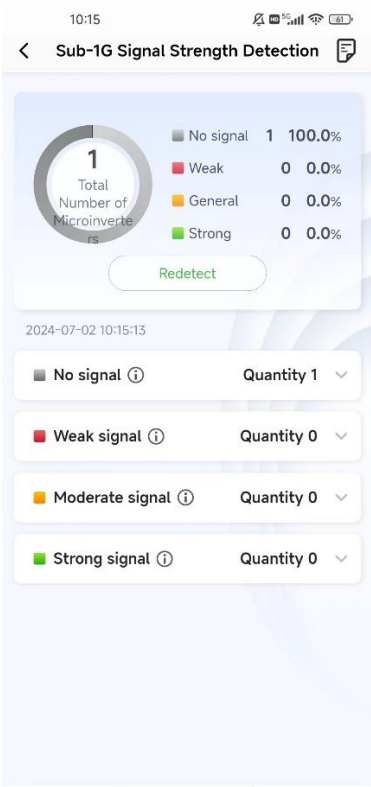
Operation Steps

Step 1: Click the 'Sub-1G Signal Strength Detection' button, and the system will automatically perform detection of microinverter device information. If the current connection is a Sub-1G version microinverter device, a prompt will appear.

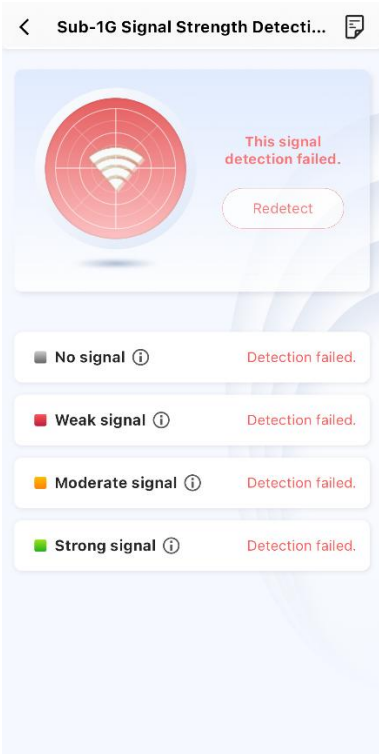
Step 2: In the signal detection page, click the 'Detection Now' button to detect nearby devices. The 'History' button in the upper right corner can view historical detection records.



Step 3: After the detection is completed, you can view the signal distribution of the current surrounding devices.



Step 4: If the detection fails, you can click the 'Redetect' button on the detection result page to perform signal detection again.



3.3.11 IPS Self-Test

Function Introduction

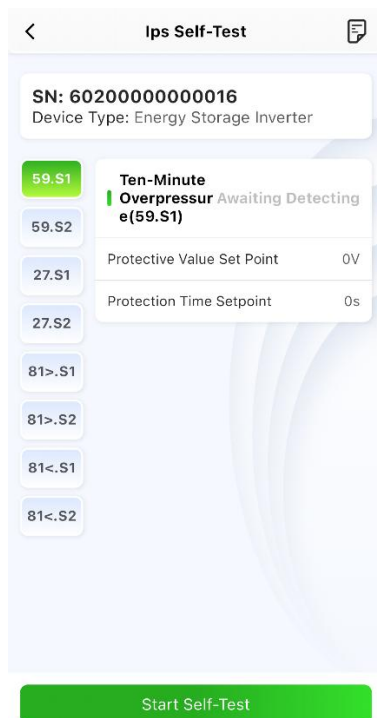
For the inspection of devices by the Italian grid connection file (currently only supports hhybrid devices).

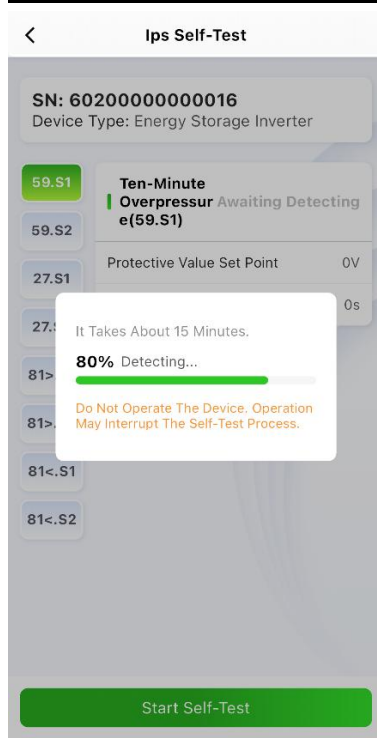
Prerequisites

1. Already connected to the communication device via WiFi and entered the 'Debug' page on the near-end homepage.
2. The communication device is a hybrid device.

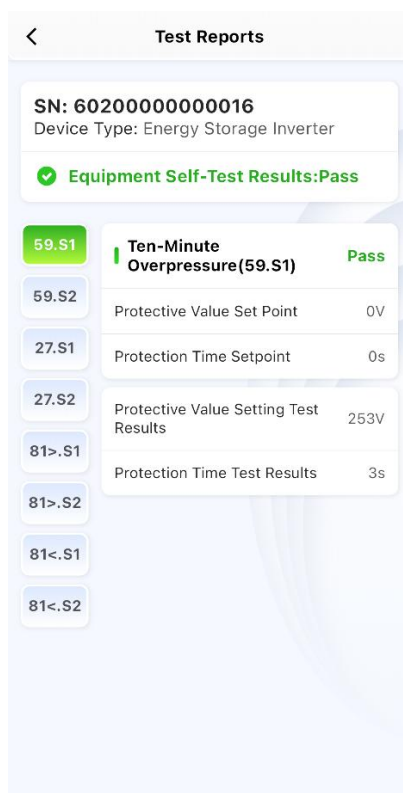
Operation Steps

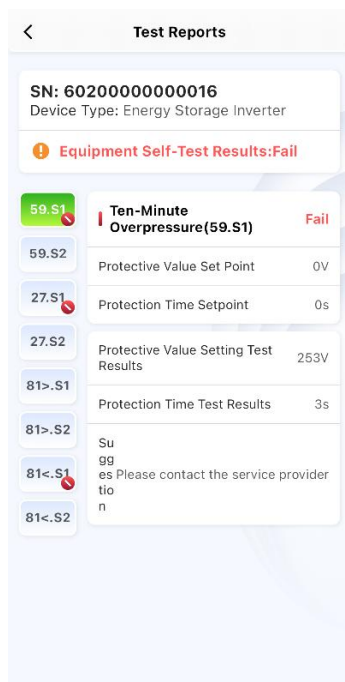
Step 1: Click 'IPS Self-Test' to enter the self-check interface, and click the 'Start Self-Test' button for the required self-check items.





Step 2: Click the button in the upper right corner to view the inspection report. If the device self-test result does not pass, it will be marked in red, and you should take certain measures according to the suggestions in each item.





4 Contact Us

China Zhejiang Hangzhou

Zhejiang Hyxi Technology Co., Ltd.

Address: 9-10F, Building 3, Jiuyao Commercial Center, Zhuantang Street, Xihu District, Hangzhou, Zhejiang

Email: support@hyxipower.com

Website: www.hyxipower.com

Appendix 1 Device Debugging Parameters

Protection Parameters

id	Parameter Name	Parameter Description
1	Grid Level 1 Undervoltage Protection	Set the threshold value of Grid Level 1 Undervoltage Protection
2	Grid Level 1 Undervoltage Protection Trip Time	After the setting time of the Grid Level 1 Undervoltage Protection threshold value is exceeded, the inverter stops for protection
3	Grid Level 2 Undervoltage Protection	Set the threshold value of Grid Level 2 Undervoltage Protection
4	Grid Level 2 Undervoltage Protection Trip Time	After the setting time of the Grid Level 2 Undervoltage Protection threshold value is exceeded, the inverter stops for protection
5	Grid Level 1 Overvoltage Protection	Set the threshold value of Grid Level 1 Overvoltage Protection
6	Grid Level 1 Overvoltage Protection Trip Time	After the setting time of the Grid Level 1 Overvoltage Protection threshold value is exceeded, the inverter stops for protection
7	Grid Level 2 Overvoltage Protection	Set the threshold value of Grid Level 2 Overvoltage Protection
8	Grid Level 2 Overvoltage Protection Trip Time	After the setting time of the Grid Level 2 Overvoltage Protection threshold value is exceeded, the inverter stops for protection
9	Grid Level 1 Underfrequency Protection	Set the threshold value of Grid Level 1 Underfrequency Protection
10	Grid Level 1 Underfrequency Protection Trip Time	After the setting time of the Grid Level 1 Underfrequency Protection threshold value is exceeded, the inverter stops for protection
11	Grid Level 2 Underfrequency Protection	Set the threshold value of Grid Level 2 Underfrequency Protection
12	Grid Level 2 Underfrequency Protection Trip Time	After the setting time of the Grid Level 2 Underfrequency Protection threshold value is exceeded, the inverter stops for protection
13	Grid Level 1 Overfrequency Protection	Set the threshold value of Grid Level 1 Overfrequency Protection
14	Grid Level 1 Overfrequency Protection Trip Time	After the setting time of the Grid Level 1 Overfrequency Protection threshold value is exceeded, the inverter stops for protection
15	Grid Level 2 Overfrequency Protection	Set the threshold value of Grid Level 2 Overfrequency Protection
16	Grid Level 2 Overfrequency Protection Trip Time	After the setting time of the Grid Level 2 Overfrequency Protection threshold value is exceeded, the inverter stops for protection

17	Grid overvoltage (10-minute protection value)	Set the threshold value of Grid overvoltage (10-minute protection value)
18	Enable Grid Overvoltage Protection (10 minutes)	Set Enable Grid Overvoltage Protection (10 minutes) On or Off
19	Grid Level 3 Undervoltage Protection	Set the threshold value of Grid Level 3 Undervoltage Protection
20	Grid Level 3 Undervoltage Protection Trip Time	After the setting time of the Grid Level 3 Undervoltage Protection threshold value is exceeded, the inverter stops for protection
21	Grid Undervoltage Recovery	The threshold for recovering from an Undervoltage fault after protection is set
22	Grid Overvoltage Recovery	The threshold for recovering from an Overvoltage fault after protection is set
23	Grid Underfrequency Recovery	The threshold for recovering from an Underfrequency fault after protection is set
24	Grid Overfrequency Recovery	The threshold for recovering from an Overfrequency fault after protection is set

Connection/Reconnection Parameters

id	Parameter Name	Parameter Description
1	Connection Active Rise Rate	Set the value of the Connection Active Rise Rate (first power on and grid connection, command start and stop, go connection; After the fault stops, restart the machine, go to reconnect)
2	Connection Active Slope Enable	Set Connection Active Slope Enable On or Off
3	Connection Frequency Upper limit	Set the upper limit of inverter grid-connected operating frequency
4	Connection Frequency Lower limit	Set the lower limit of inverter grid-connected operating frequency
5	Connection Voltage Upper Limit	Set the upper limit of inverter grid-connected operating voltage
6	Connection Voltage Lower Limit	Set the lower limit of inverter grid-connected operating voltage
7	On-grid Detection Time	Set On-grid Detection Time
8	Active Power Soft Start Limit Maximum Power Ratio	Set the limited maximum output power ratio after the grid connection is successful
9	Reconnection Detection Time	Set the time from the start when the grid-connection conditions are met (no fault, command) to the start time
10	Reconnection Active Power Rise Rate	After the machine is successfully started, the output active power to the set value (such as rated power) power rise speed
11	Enable reconnection active power slope	Set Enable reconnection active power slope On or Off
12	Reconnection Frequency Upper limit	Set the frequency upper limit for reconnecting an inverter to the power grid after fault recovery
13	Reconnection Frequency Lower limit	Set the frequency lower limit for reconnecting an inverter to the power grid after fault recovery

14	Reconnection Voltage Upper limit	Set the voltage upper limit for reconnecting an inverter to the power grid after fault recovery
15	Reconnection Voltage Lower limit	Set the voltage lower limit for reconnecting an inverter to the power grid after fault recovery

Derating/Rising Curve Parameters

id	Parameter Name	Parameter Description
1	Enable overfrequency and derating	When the grid overfrequency, the power generation equipment can automatically reduce the active power output
2	Overfrequency and Derating Curve	0= symmetrical, when the frequency rises or falls, the power changes according to the frequency; 1= Asymmetrical, the power decreases when the frequency rises, and if the frequency is slightly reduced during this process, the power does not increase with the frequency.
3	Overfrequency and Derating Recovery Point	Set the frequency to a frequency below the start point of the overfrequency derating
4	Overfrequency and Derating F1	Set the start frequency of overfrequency derating
5	Overfrequency and Derating F2	Set the middle frequency or maximum frequency of overfrequency derating
6	Overfrequency and Derating F3	Set the maximum frequency of overfrequency derating
7	Overfrequency and Derating Active Power Derating Rate 2	Set the value of Overfrequency and Derating Active Power Derating Rate 2
8	Overfrequency and Derating Delay Response Time	Set Overfrequency and Derating Delay Response Time
9	Overfrequency and Derating Delay Recovery Time	Set Overfrequency and Derating Delay Recovery Time
10	Overfrequency and Derating Active Power Derating Rate	Set the value of Overfrequency and Derating Active Power Derating Rate
11	Overfrequency and Derating Active Power Recovery Rate	Set the value of Overfrequency and Derating Active Power Recovery Rate
12	Underfrequency and Uprating Enable	Set Underfrequency and Uprating Enable On or Off
13	Underfrequency and Uprating Curve	0= symmetrical, when the frequency rises or falls, the power changes according to the frequency; 1= Asymmetrical, the frequency decreases when the power rises, and if the frequency is slightly increased during this process, the power does not reduce with the frequency.
14	Underfrequency and Uprating Recovery Point	Set the frequency to rise to a certain frequency above the start point of the underrise
15	Underfrequency and Uprating F1	Set the start frequency of underfrequency derating
16	Underfrequency and Uprating F2	Set the middle frequency or maximum frequency of underfrequency derating

17	Underfrequency and Uprating F3	Set the maximum frequency of underfrequency derating
18	Underfrequency and Uprating Active Power Uprating Rate 2	Set the underfrequency rise rate of the active rise rate
19	Underfrequency and Uprating Delay Response Time	Set the response time of underfrequency rise delay
20	Underfrequency and Uprating Recovery Time	Set Underfrequency and Uprating Recovery Time
21	Underfrequency and Uprating Active Power Uprating Rate	Set the underfrequency rise rate of the active rise rate
22	Underfrequency and Uprating Active Power Recovery Rate	Set the slope for restoring active power
23	Grid Overvoltage Active Power Adjustment Enable	When the grid voltage is too high, set whether to limit the active power output
24	OPU_V1	Set the first voltage value of the load drop curve
25	OPU_V2	Set the second voltage value of the load drop curve
26	OPU_V3	Set the third voltage value of the load drop curve
27	OPU_V4	Set the fourth voltage value of the load drop curve
28	OPU_P1	Set the first power value of the load drop curve
29	OPU_P2	Set the second power value of the load drop curve
30	OPU_P3	Set the third power value of the load drop curve
31	OPU_P4	Set the fourth power value of the load drop curve
32	Grid Overvoltage Active Power Adjustment Time	Set the time when the power change process completes

Power Parameters

id	Parameter Name	Parameter Description
1	Active Power Limit Percentage Enable	Set the user to set the percentage of the maximum output power to On or Off
2	Percentage of Active Power Limit	Set the value of Percentage of Active Power Limit
3	Active Limit Percentage Rise Rate	Set the value of Active Limit Percentage Rise Rate
4	Active Power Limit Percentage Drop Rate	Set the value of Active Limit Percentage Drop Rate
5	Reactive Power Adjustment Mode	0-off, 1-PF power factor, 2-Qt reactive power ratio setting, 3-Q(P) set reactive power based on output active power, 4-Q(U) set reactive power based on output voltage
6	Reactive Power Response Time	Set the time of reactive power first order response
7	Reactive Power Factor (PF) Setting	Set Power Factor
8	QT Reactive Power Ratio Setting	Set the percentage of the rated reactive power
9	Reactive QP Active Power P1	Set the first active power value of Reactive Power Setting Curve
10	Reactive QP Active Power P2	Set the second active power value of Reactive Power Setting

		Curve
11	Reactive QP Power Factor PF1	Set the first power factor value of Reactive Power Setting Curve
12	Reactive QP Power Factor PF2	Set the second power factor value of Reactive Power Setting Curve
13	Reactive Power QU_V1	Set the value of Reactive power curve the first grid voltage
14	Reactive Power QU_K1	Set the value of Reactive power curve the first reactive power percentage
15	Reactive Power QU_V2	Set the value of Reactive power curve the second grid voltage
16	Reactive Power QU_K2	Set the value of Reactive power curve the second reactive power percentage
17	Reactive Power QU_V3	Set the value of Reactive power curve the third grid voltage
18	Reactive Power QU_K3	Set the value of Reactive power curve the third reactive power percentage
19	Reactive Power QU_V4	Set the value of Reactive power curve the fourth grid voltage
20	Reactive Power QU_K4	Set the value of Reactive power curve the fourth reactive power percentage

Battery Parameters

id	Parameter Name	Parameter Description
1	Enable grid undervoltage charging load limiting	When the grid is under voltage, set whether to limit the charging function of the energy storage battery
2	UPU_V1	Set the charge limit to the first grid voltage value
3	UPU_V2	Set the charge limit to the second grid voltage value
4	UPU_V3	Set the charge limit to the third grid voltage value
5	UPU_V4	Set the charge limit to the fourth grid voltage value
6	UPU_P1	Set the charge limit to the first grid power value
7	UPU_P2	Set the charge limit to the second grid power value
8	UPU_P3	Set the charge limit to the third grid power value
9	UPU_P4	Set the charge limit to the fourth grid power value
10	Grid Undervoltage Charging Limit Load Adjustment Time	Set the time when the power change process completes