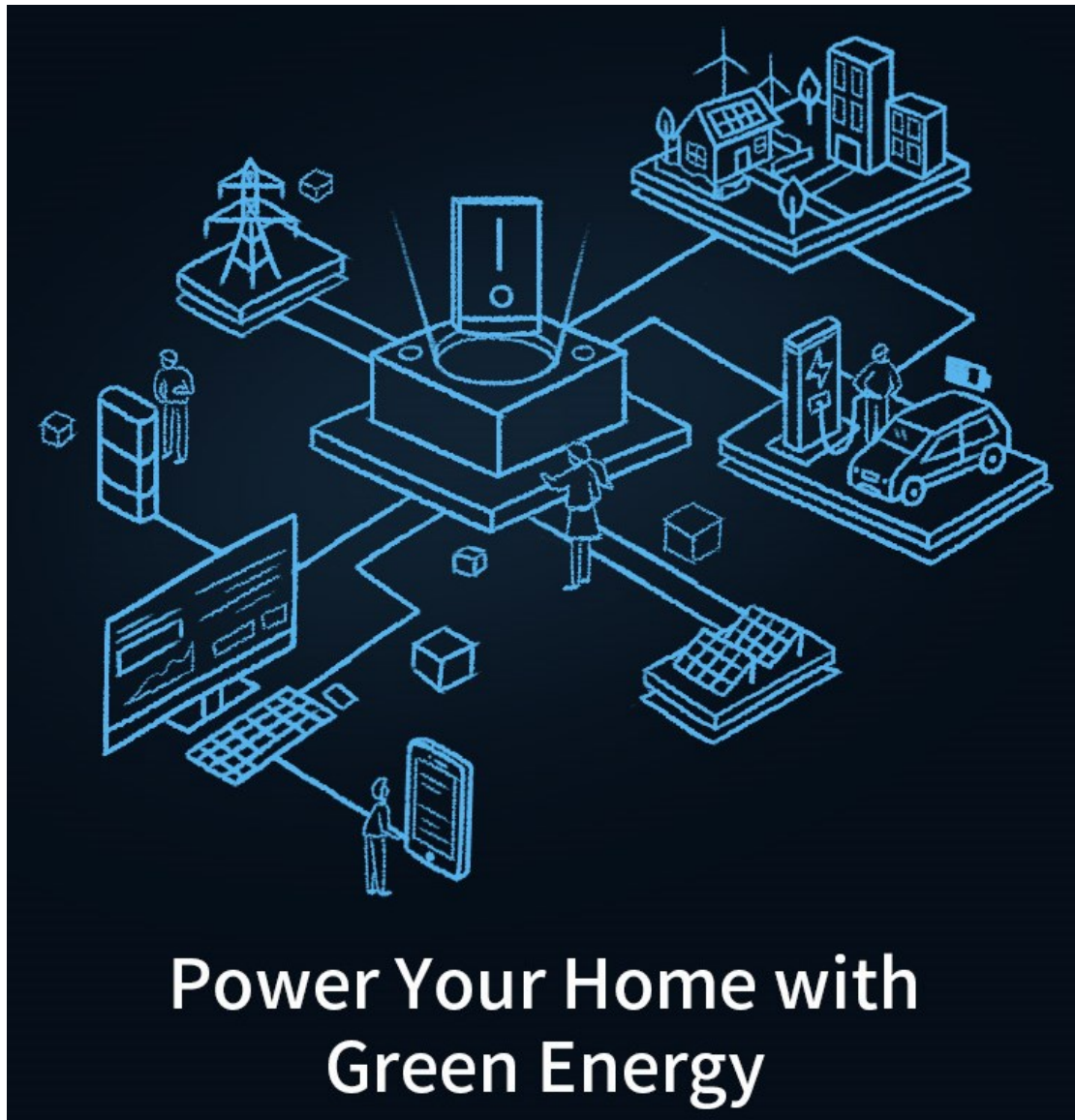


Livoltek-portal User Manual For Distributor & Installer

Apply for Livoltek-portal V2.1



This document is subject to change without advance notice.

Contact: www.livoltek.com

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1 Overview

1.1 Target Audience

This manual is intended to guide operators in monitoring, setting up and controlling of LIVOLTEK devices using the Livoltek-portal platform. The reader needs to have a basic knowledge of IoT and understand the product features of LIVOLTEK devices. Please read this manual carefully before using the Livoltek-portal (hereinafter referred to as the platform).

1.2 How to Become an Installer

For customers who purchased the product directly from LIVOLTEK, you can contact the sales person who served you at the time of purchase or the after-sales service line and he will take care of it for you.

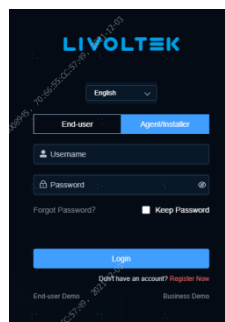
For customers who purchased LIVOLTEK products from other sources, please contact your distributor and ask to take care of it for you. Provide your email address and your distributor will generate an unique invitation link for you on livoltek-portal and send to you by email. Check your inbox (or sometimes check your spam in case), Click on the link and fill in the relevant information and you will be able to become an installer and manage your organization.

You can also click "Register" button on the login page, fill in the information to register yourself as an installer, you need to fill in the information of your superior when registering, your registration will be submitted to your superior, please contact your superior agent for approval in time, after approval you can access the platform.

2 Log in

2.1 Enter LIVOLTEK-PORTAL

Enter the URL " <https://www.livoltek-portal.com> " in your browser, select the [Agent/Installer] tab, and enter the correct user name and password to log in to the platform.

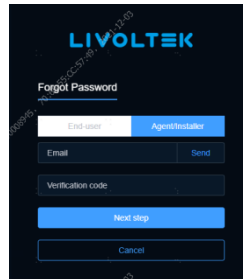


Picture 2-1

2.2 Forgot Password

Click [Forgot Password] on login page, then choose [Agent/Installer] Tab.

Enter your registered mailboxclick [Send] button, enter the mailbox to view the verification code, enter the verification code to meet the conditions, enter the password change step to change your password.

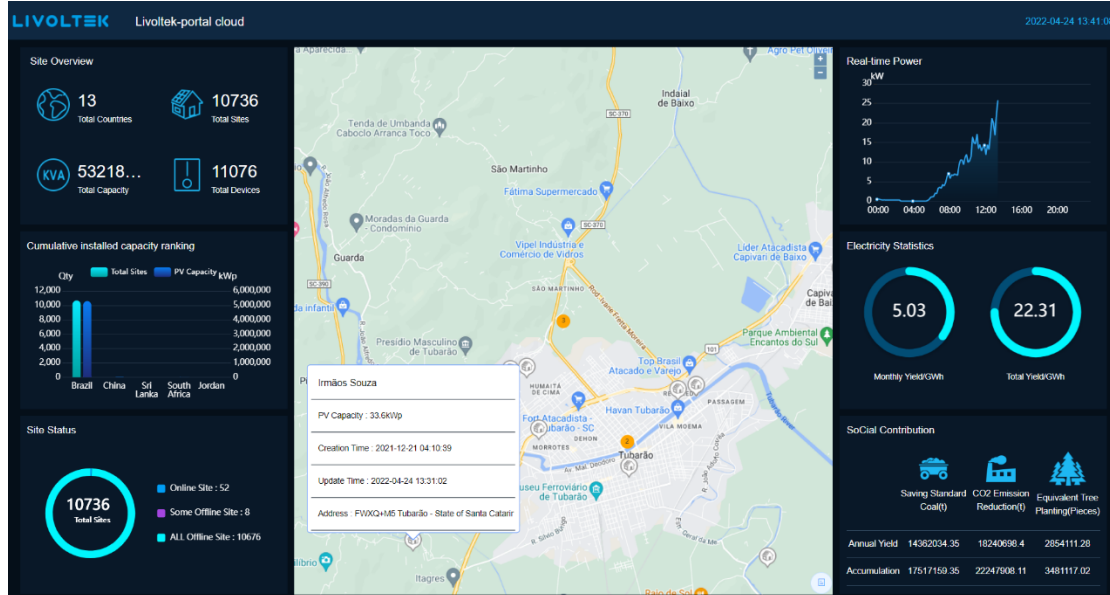


Picture 2-2

3 Big Board

Click [Big Board] on menu bar to enter the display.

site[Big Board] displays sites overview, real-time power, installed capacity ranking based on region, energy statistics, site status, social contribution and GIS map showing the distribution of sites, and the installation information of selected site on GIS.



Picture 3-1

4 Homepage


4.1 Homepage

It mainly displays power plant status, power generation overview, weather overview, grid-connected system and energy storage system statistics, making it easy for operators to view the operation of the power plant.



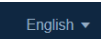
Picture 4-1

4.2 My profile

Click  icon to view [My profile] and [Reset Password], click [My profile] to view your personal account and the information of the organization you belong to.

Click [Reset Password], enter the old password and the new password to complete the password change.

4.3 Language Switching

Click the  icon to switch the system language.

5 Sites

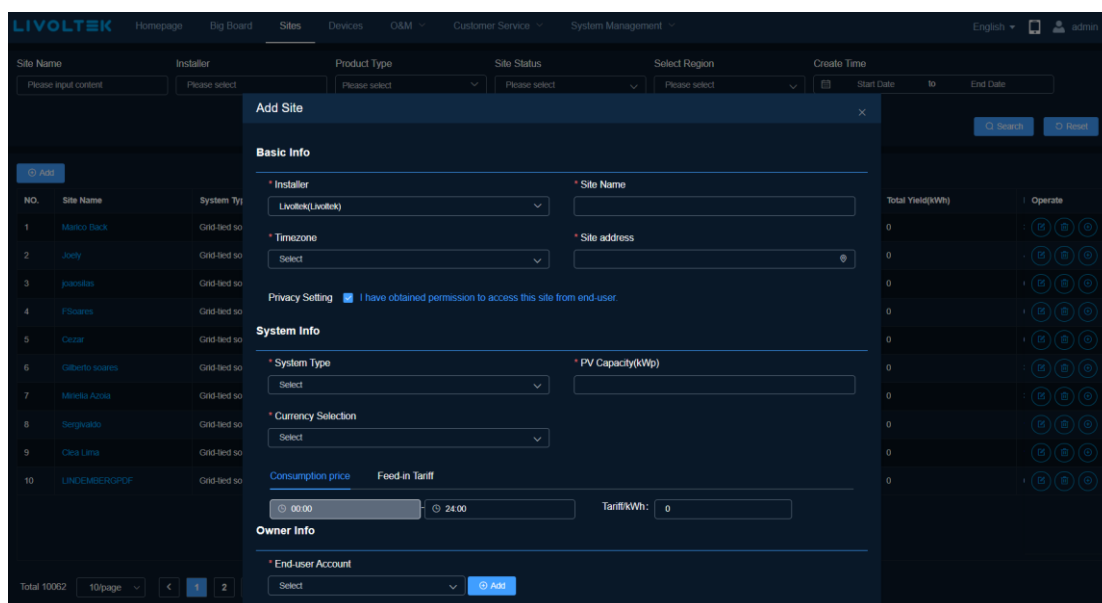
[Sites] displays all authorized sites within the organization of your account. Supports adding, modifying, deleting and viewing details of sites. Site data is subject to authorized consent of the end user.

5.1 Site List

Enter the [Sites] menu to view the list of sites. Support searching sites according to site name, installer, product model, site status, country and creation time.

5.2 Add a New Site

Click the [+Add] button above the site list, fill in the basic information of the site, system information and associate the end user.



Picture 5-1

5.2.1 Add New Device

Select the target site in the site list, click the [Add Device] icon in the operation column to pop up the Add Device pop-up window, select the device model and enter the SN number to add the device.

5.3 Edit Site

In the device list, select the target site and click [Edit] icon in the operation column to edit the site.

5.4 Delete

In the device list, select the target site and click [Delete] icon in the operation column to delete the site. ***Note: You cannot delete a site when there are associated devices in the site.**

5.5 Site Details

In the site list, select the target site and click on the site name to enter the site details page to view the site details.

5.5.1 Detail Information

View stats indicators, power flow, power tendency, and generation bar charts.



Picture 5-2

5.5.2 Device Information

To view all the device list in the current site, click the *device SN* link to enter the [device detail] page. View device details.

The screenshot displays the LIVOLTE Moiseis site details dashboard, specifically the 'Device Information' tab. The dashboard shows a table of device details for the site 'Moiseis'. The table has the following columns: NO., Communication Status, Running Status, Inverter SN, Datalogger SN, Product Type, Real-time Power(kW), Today Yield(kWh), and Data Update Time. The table contains one row of data for device NO. 1, which is currently 'Offline' and has a 'Running Status' of 'Offline'. The Inverter SN is 2144-81060, the Product Type is GT1-8K-D, the Real-time Power is 0 kW, and the Today Yield is 0 kWh. The Data Update Time is 2022-04-24 05:24:19.

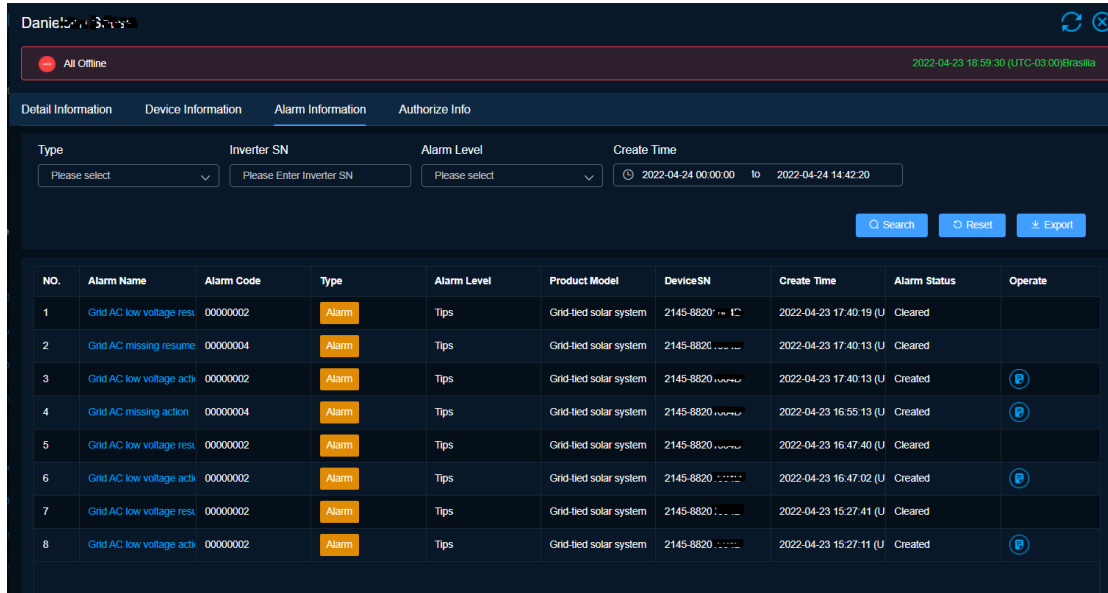
NO.	Communication Status	Running Status	Inverter SN	Datalogger SN	Product Type	Real-time Power(kW)	Today Yield(kWh)	Data Update Time
1	Offline	Offline	2144-81060		GT1-8K-D	0	0	2022-04-24 05:24:19

Picture 5-3

5.5.3 Alarm Information

View the alarm data of all devices in the site. Default display the current day alarms, support to view more alarms by time selector.

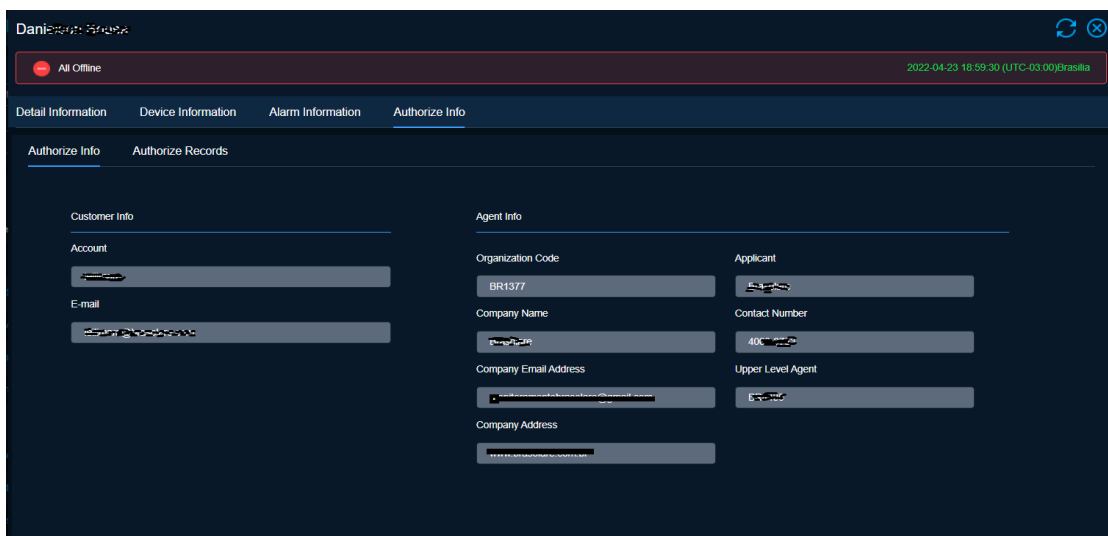
Click [operate] to view troubleshooting of the alarm.



Picture 5-4

5.5.4 Authorize Info

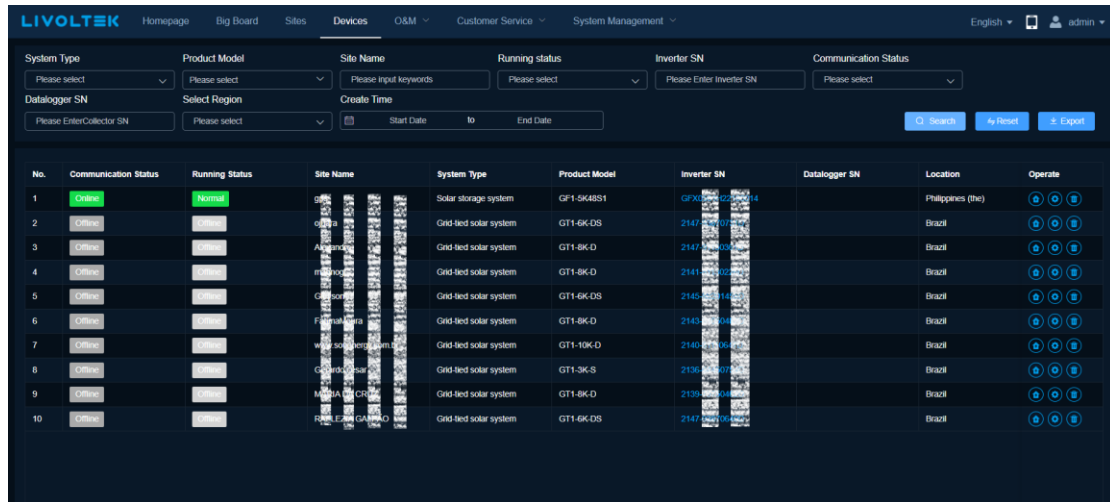
View the site owner authorization information, visit the [Authorize Info] page to view the owner account email and authorized installer information. Visit [Authorize Records] to view the historical authorization records of the site.



Picture 5-5

6 Devices

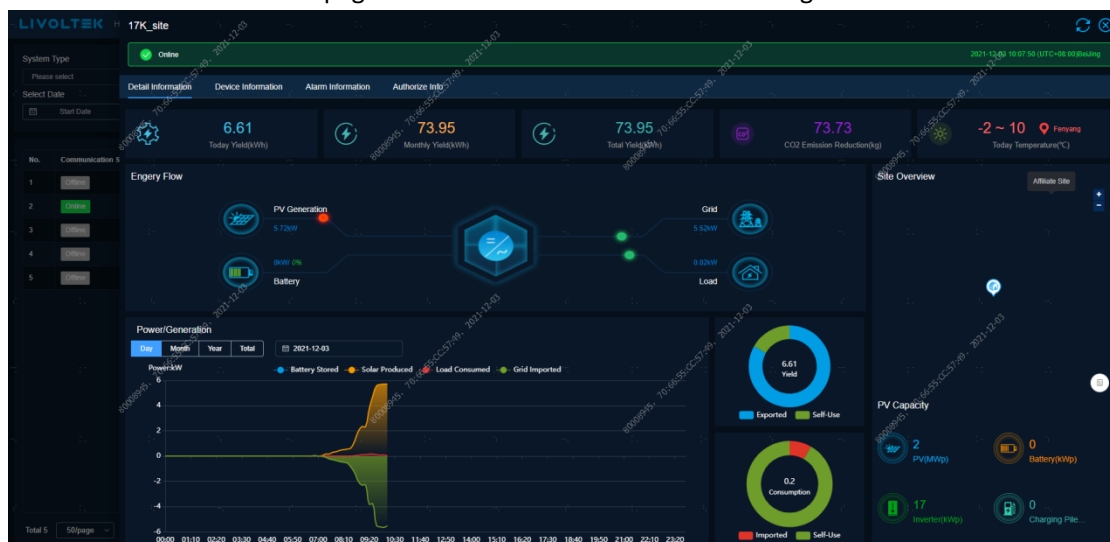
[Devices] is used to view list of devices. Device list supports exporting to Excel file. Click [Devices] menu to enter the device management page and view the device list. It supports searching sites by system type, product model, site name, running status, product model, inverter SN, communication status, datalogger SN, region and creation time.



Picture 6-1

6.1 Affiliated Site

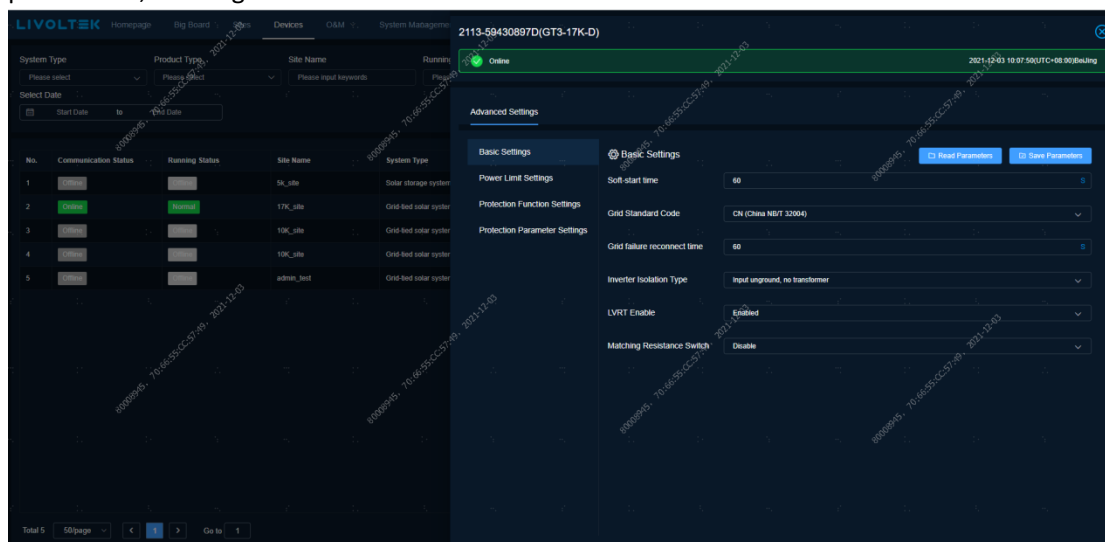
Select the target device in the device list and click the [Affiliated Site] icon in the operation column to enter the details page of the site to which the device belongs.



Picture 6-2

6.2 Device Operation

Select the target device in the device list, click the [Operate] icon in the operation column, enter the device settings page, modify the device parameters, such as grid voltage protection parameters, working mode.



Picture 6-3

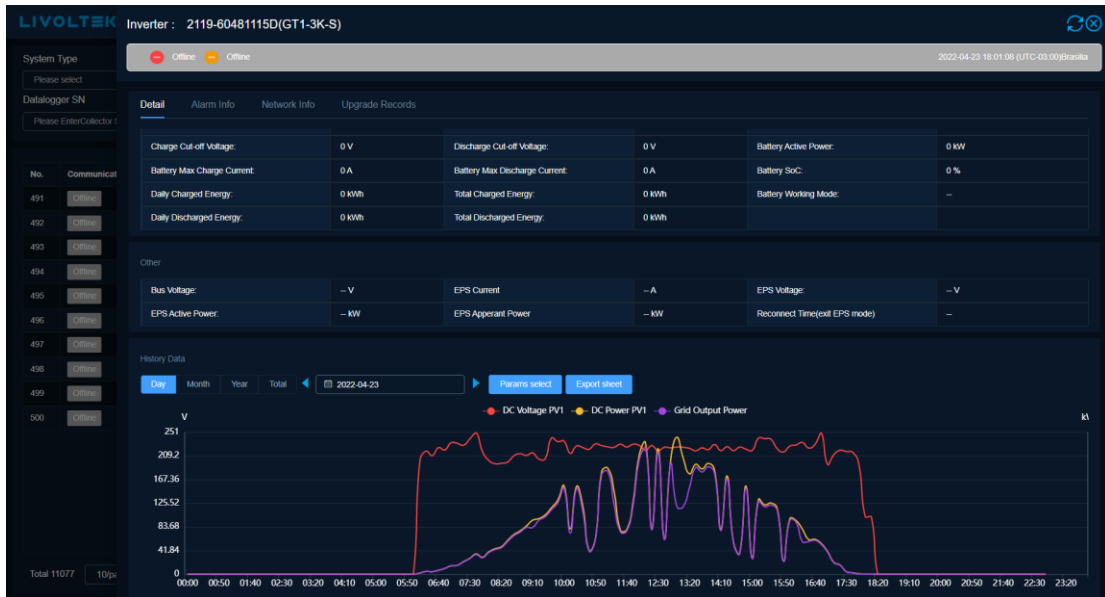
6.3 Device Details

6.3.1 Device Detail

Select the target device in the device list and click the *device SN* link to enter the device details page. Device details include data last update time, basic information, firmware version information, real-time data (power generation information, grid, load, battery, others) and historical data statistics curve.

*Generation info: if there are multi MPPTs, click more to view.

*Historical data: it contains daily, monthly, yearly and total curve statistics, support to less than 8 curve with four axis at once, and can be exported into an Excel file.



Picture 6-4

6.3.2 Alarm Info

On the device details page, click the [Alarm Info] tab to display the current day's alarms by default, and support viewing more alarms through the time selector.

6.3.3 Network Info

On the device details page, click the [Network info] tab to display the network topology of the device.

6.3.4 Upgrade Records

On the device details page, click the [Upgrade Records] tab to display all upgrade history pages for this device, as follows:

The screenshot displays the LIVOLTEK Inverter monitoring interface for device 2124-64440236D(GT1-3K-S). The system is currently Offline. The Upgrade Records tab is active, showing a table of upgrade history:

No.	Firmware Type	Pre-upgrade Version	Upgraded Version	Upgrade Completed Time	Upgrade Result	Failure Reason
1	Overall unit	030200	030333	2022-04-24 01:51:35	Upgrade Success	

Picture 6-5

7 O & M

7.1 DeviceO&M

7.1.1 Firmware Upgrade

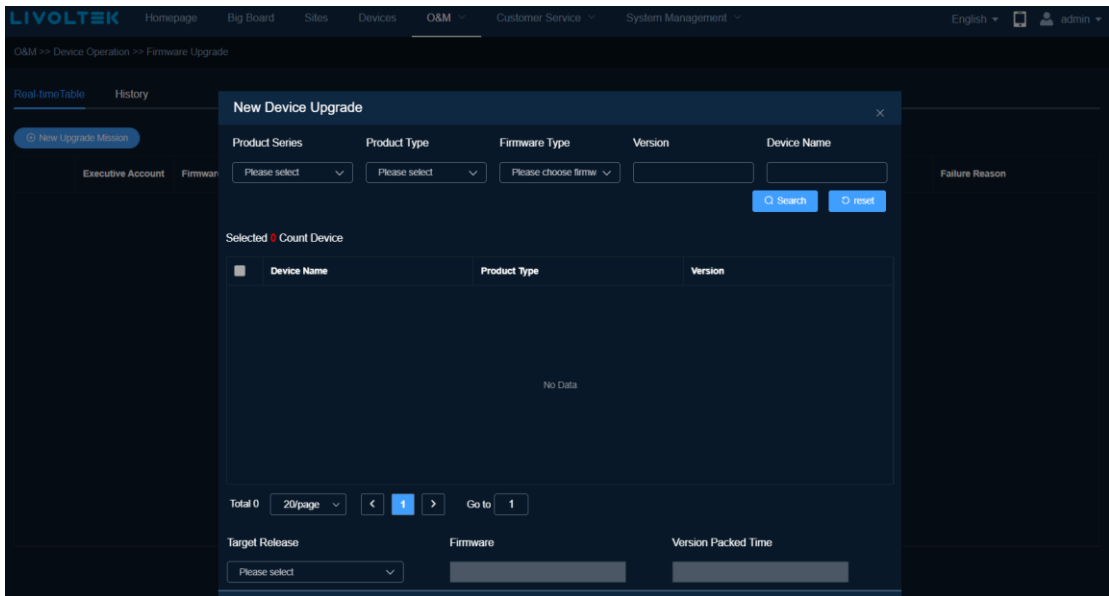
[Device Operation > Firmware Upgrade] support firmware OTA for the device, by using synchronous or asynchronous control methods. For GT1-3K-S/SS, GT1-5K/6K-D/DS, GT1-8K/10K-D, GT1-17K/20K/ 22K/25K/28K/30K-D, GT3-50K/60K support to asynchronous OTA task, other models support to synchronous task. Here you can view real-time task and historical logs.

7.1.1.1 Add New Task

Click [Real-time Table] tab, click [+ New Upgrade Mission] to create an OTA task.

- 1) Select the product series, model, firmware type;
- 2) Search and select the target device;
- 3) Select the firmware version of the target to confirm the upgrade.

The system creates an upgrade task, and check the process in [Upgrade Step] in the list.



Picture 7-1

7.1.1.2 History Records

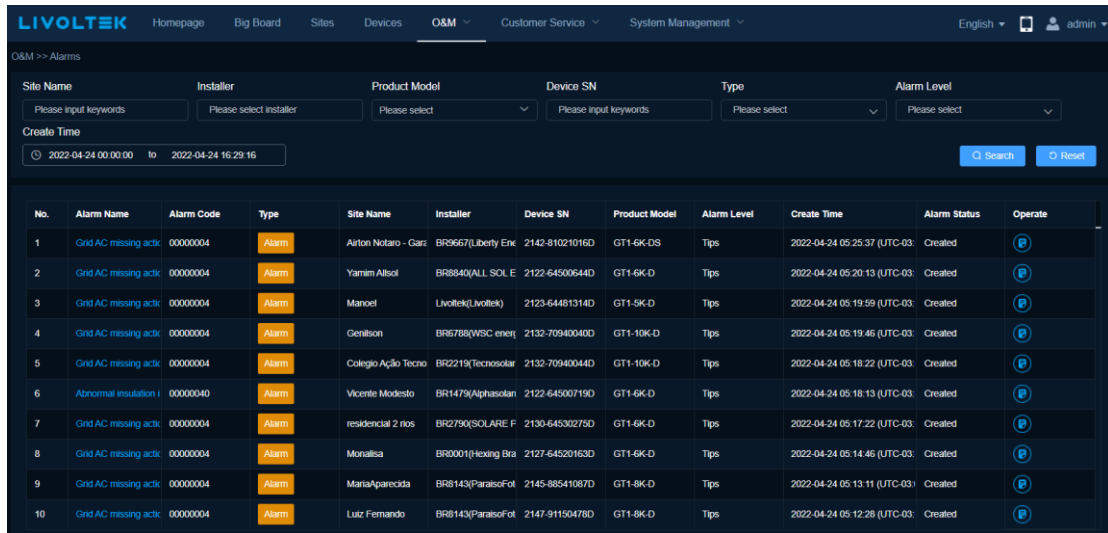
Click [History] tab to enter the history page, which supports querying historical upgrade record data by firmware type, upgrade result, upgrade time range, and supports exporting an Excel file.

7.2 Alarms

[Alarms] support to view the alarm data of all devices. By default, it displays the alarms of all devices today by default, and supports viewing more alarms through the time selector.

Support query by site name, product model, equipment SN number, type, alarm level and receiving time range.

Click the [Details] icon in the operation column to view the troubleshooting for the alarm.



The screenshot shows the LIVOLTEK O&M Alarms interface. At the top, there are navigation tabs: Homepage, Big Board, Sites, Devices, O&M (selected), Customer Service, and System Management. The user is logged in as 'admin'. Below the navigation, there are search filters for Site Name, Installer, Product Model, Device SN, Type, and Alarm Level. A 'Create Time' range selector is set from 2022-04-24 00:00:00 to 2022-04-24 16:29:16. A table displays 10 alarm records with columns: No., Alarm Name, Alarm Code, Type, Site Name, Installer, Device SN, Product Model, Alarm Level, Create Time, Alarm Status, and Operate. Each record has a 'Details' icon in the Operate column.

No.	Alarm Name	Alarm Code	Type	Site Name	Installer	Device SN	Product Model	Alarm Level	Create Time	Alarm Status	Operate
1	Grid AC missing acti	00000004	Alarm	Ailton Notaro - Gar	BR9667(Liberty En	2142-81021016D	GT1-6K-DS	Tips	2022-04-24 05:25:37 (UTC-03)	Created	(P)
2	Grid AC missing acti	00000004	Alarm	Yamen Allsol	BR8840(ALL SOL E	2122-64500644D	GT1-6K-D	Tips	2022-04-24 05:20:13 (UTC-03)	Created	(P)
3	Grid AC missing acti	00000004	Alarm	Manoel	Livoltek(Livoltek	2123-64481314D	GT1-5K-D	Tips	2022-04-24 05:19:59 (UTC-03)	Created	(P)
4	Grid AC missing acti	00000004	Alarm	Genilson	BR6768(WSC ener	2132-70940040D	GT1-10K-D	Tips	2022-04-24 05:19:46 (UTC-03)	Created	(P)
5	Grid AC missing acti	00000004	Alarm	Colegio Açilo Techn	BR2219(Tecnosolar	2132-70940044D	GT1-10K-D	Tips	2022-04-24 05:18:22 (UTC-03)	Created	(P)
6	Abnormal insulation	00000040	Alarm	Vicente Modesto	BR1479(Alphasolan	2122-64500719D	GT1-6K-D	Tips	2022-04-24 05:18:13 (UTC-03)	Created	(P)
7	Grid AC missing acti	00000004	Alarm	residencial 2 nos	BR2790(SOLARE P	2130-64530275D	GT1-6K-D	Tips	2022-04-24 05:17:22 (UTC-03)	Created	(P)
8	Grid AC missing acti	00000004	Alarm	Monalisa	BR0001(Hexing Bra	2127-64520163D	GT1-6K-D	Tips	2022-04-24 05:14:46 (UTC-03)	Created	(P)
9	Grid AC missing acti	00000004	Alarm	MariaAparecida	BR8143(ParaisoFol	2145-88541087D	GT1-8K-D	Tips	2022-04-24 05:13:11 (UTC-03)	Created	(P)
10	Grid AC missing acti	00000004	Alarm	Lutz Fernando	BR8143(ParaisoFol	2147-91150478D	GT1-8K-D	Tips	2022-04-24 05:12:28 (UTC-03)	Created	(P)

Picture 7-1

7.3 Report

[Report] support to view the report data of site and device, support the statistics and export of daily, report and annual report data.

7.3.1 Site Reports

Supports viewing and exporting daily, monthly and yearly power generation reports of sites.

7.3.2 Device Reports

Support to view daily detailed parameters report of equipment and support to export 30 days detailed parameters.

Support to view and export the monthly and annual power generation report of the equipment.