



产 品 说 明 书

Product Manual

产品名称APPELLATION: 触摸屏 touch screen

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Product Revision Record

[illegible]



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1、产品概述 Product Overview

本触摸屏是专为 BMS 系列储能产品的配套设备，可提供直观的电池组采样参数、温度、BMS 运行状态等显示，集成蓝牙与 WiFi 功能，具有操作简单、界面友好等特点。

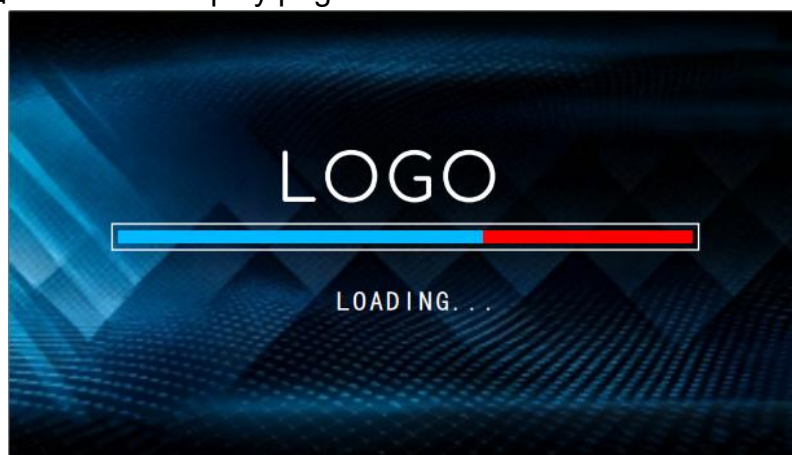
This touch screen is designed as a supporting device for BMS series energy storage products, providing intuitive display of battery pack sampling parameters, temperature, BMS operating status, etc. It integrates Bluetooth and WiFi functions and has the characteristics of simple operation and user-friendly interface.

2、实物图 Physical drawing

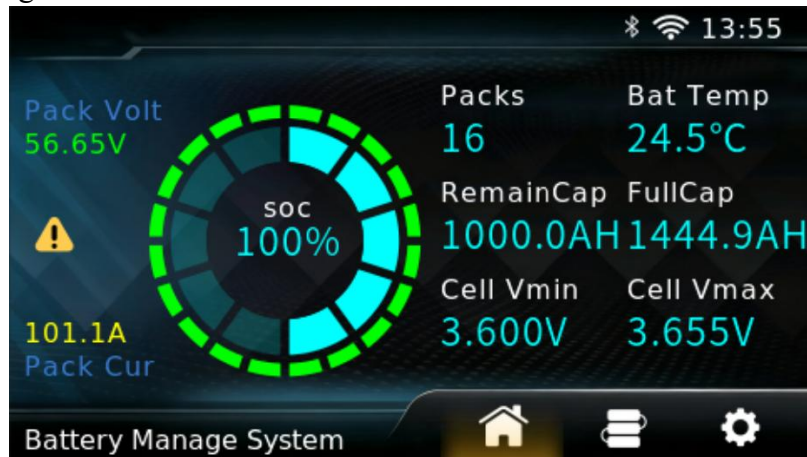


3、触摸屏页面介绍 Introduction to Touch Screen Page

3.1 开机显示页面 Power on display page

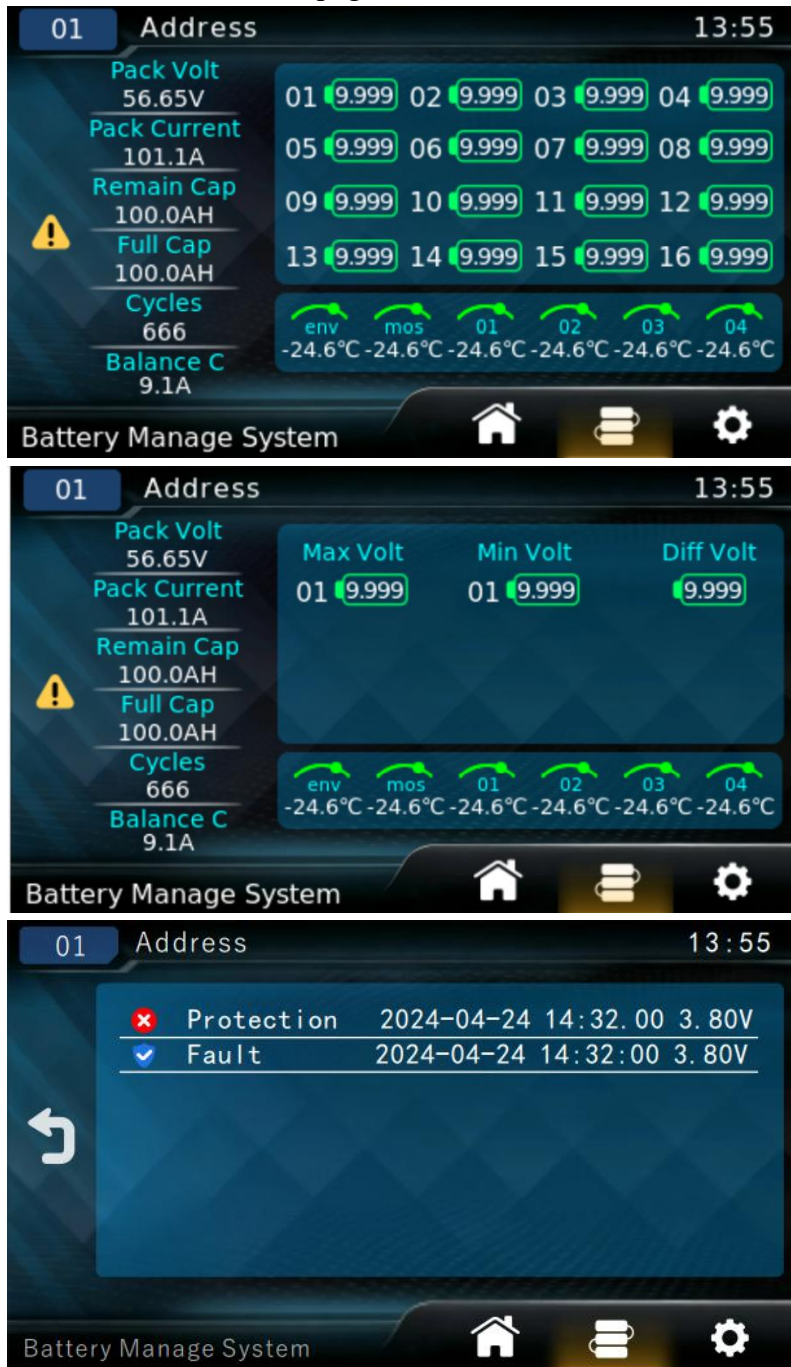


3.2 首页 Home Page



- 电压：为所有在线 PACK 的平均电压
- 电流：为所有在线 PACK 的总电流
- SOC：为所有在线 PACK 的平均 SOC
- SOC 光圈：a 外光圈：系统状态为充电时顺时针走水。系统为待机或放电时不变。
b 内光圈：按照系统 SOC 显示
- 电池包：为所有在线 PACK 的数量
- 电池温度：为所有在线 PACK 的平均温度
- 剩余容量：为系统总的剩余容量
- 满充容量：为系统总的满充容量
- ⚡：为蓝牙连接图标
- 📶：为 WiFi 配网图标
- 电池管理系统栏：通过点击三个图标进行页面切换。分别为首页-并机页面-设置页面
- 时间：为当前连接的 BMS 时间
- 三角警示图标：为系统中存在保护或故障
- Voltage: the average voltage of all online PACKs.
- Current: the total current of all online PACKs.
- SOC: The average SOC of all online PACKs.
- SOC aperture: a Outer aperture: When the system is charging, it flows clockwise. The system remains unchanged when in standby or discharging mode.
b internal aperture: displayed according to the system SOC.
- Battery Pack: Quantity for all online PACKs.
- Battery temperature: the average temperature of all online PACKs.
- Remaining capacity: refers to the total remaining capacity of the system.
- Full charge capacity: refers to the total full charge capacity of the system.
- ⚡：For Bluetooth connection Icon
- 📶：WiFi Distribution Network Icon
- Battery Management System Bar: Switch pages by clicking on three icons. They are respectively the homepage, parallel page, and settings page
- Time: is the current BMS connection time
- Triangle warning icon: indicates the presence of protection or malfunction in the system

3.3 并机页面 Parallel page



并机页面为显示对应地址的 PACK 信息。如：电压、电流、剩余容量、满容量、循环次数、均衡电流、温度。

- 地址切换：当前连接的 BMS 为主机时，可通过左上角地址按钮（01）切换地址查看从机数据。从机存在保护或故障时对应地址数字为黄色，无保护或故障为白色。
- 三角警示图标：当前地址的 BMS 存在保护或故障时亮起，可点击此图标查看告警。无保护或故障时不显示。具体标志位见表 1。
- 单体电压显示框：最高单体电压显示橙色，最低单体电压显示黄色。可左滑查看最高/最低单体电压对应地址及压差。

The parallel page displays the PACK information corresponding to the address. For example: voltage, current, remaining capacity, full charge capacity, number of cycles, balanced current, temperature.

- Address switching: When the currently connected BMS is the master, the address can be switched by pressing the address button (01) in the upper left corner to view the slave data. When there is protection or malfunction in the slave, the corresponding address number is yellow, and when there is no protection or malfunction, it is white.
- Triangle warning icon: It lights up when the BMS at the current address is protected or faulty. You can click this icon to view the alarm. Not displayed when there is no protection or malfunction. The specific marker positions are shown in Table 1.
- Single cell voltage display box: The highest single cell voltage is displayed in orange, and the lowest single cell voltage is displayed in yellow. You can swipe left to view the address and voltage difference corresponding to the highest/lowest cell voltage.



3.3.1 保护及故障信息 Protection and fault information

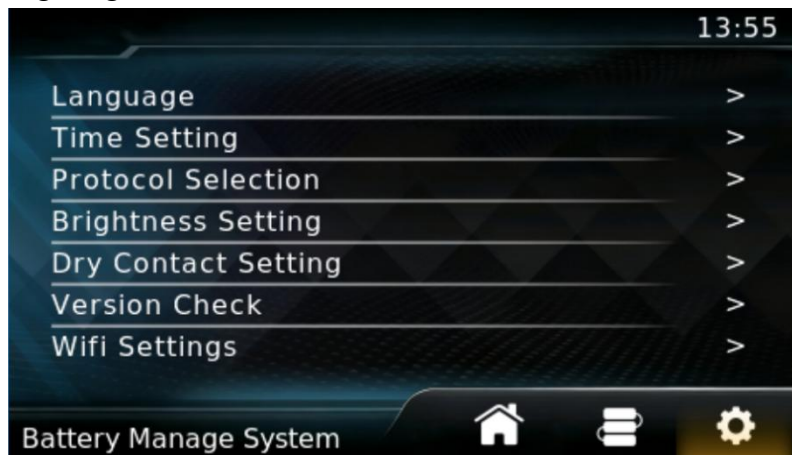
该弹窗显示的内容为所选地址的 pack 状态，当出现多个信息条时，按照保护、故障顺序依次向下排列，超出屏幕的区域可以通过上下滑动此区域来查看信息，所记录的信息为触发保护、故障的实时时间、类型、以及触发时对应的数值。

The content displayed in this pop-up window is the pack status of the selected address. When multiple information bars appear, they are arranged downwards in the order of protection and fault. Areas beyond the screen can be viewed by scrolling up and down in this area. The recorded information includes the actual time, type, and corresponding values of triggering protection and fault.

单体高压保护	Cell OVP	AFE故障	AFE FAIL
单体低压保护	Cell UVP	NTC故障	NTC FAIL
总体高压保护	Pack OVP	限流故障	LIMIT BOARD FAIL
总体低压保护	Pack UVP	电芯故障	CELL FAIL
充电过流保护	CHG OCP	加热故障	HEATING FILM FAIL
放电过流保护	DSG OCP	充电MOS故障	CHG MOS FAIL
短路	short circuit	放电MOS故障	DISCH MOS FAIL
充电高温保护	CHG OTP	采样故障	SAMPLING FAIL
充电低温保护	CHG UTP	系统锁定	SYSTEM LOCKED
放电高温保护	DSG OTP	防盗锁定	SYSTEM LOCKED
放电低温保护	DSG UTP	脱扣器断开	SYSTEM LOCKED
压差过大保护	Cell V_DIFF_P	电芯失效	Cell Invalid
MOS高温保护	MOS OTP		
环境高温保护	ENV OTP		
环境低温保护	ENV UTP		

表1 保护及故障标志位

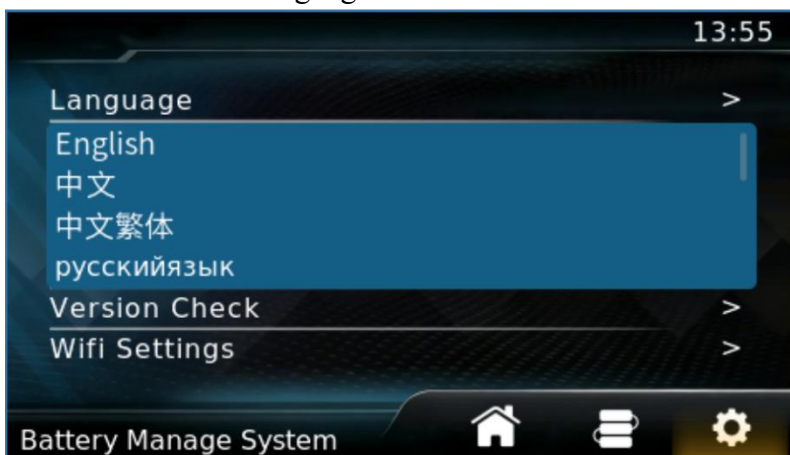
3.4 设置页面 Settings Page



该页面为设置页面，在此界面可设置语言、BMS 时间、亮度、待机时间、协议选择、干结点以及查看版本信息。

This page is a settings page where you can set language, BMS time, brightness, standby time, protocol selection, dry node, and view version information.

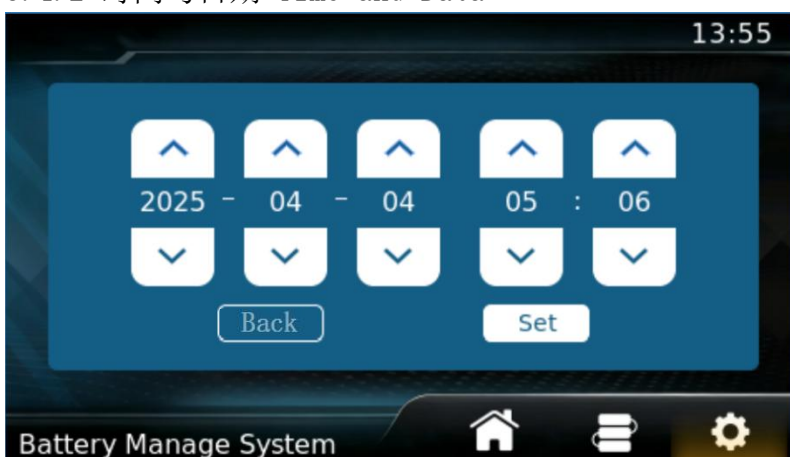
3.4.1 语言设置 Language



点击语言设置栏弹出下拉框，可上下滑动找到需要切换的语言，现语言支持 12 种。

Click on the language settings bar to pop up a dropdown menu, where you can swipe up and down to find the language you want to switch to. Currently, 12 languages are supported.

3.4.2 时间与日期 Time and Data



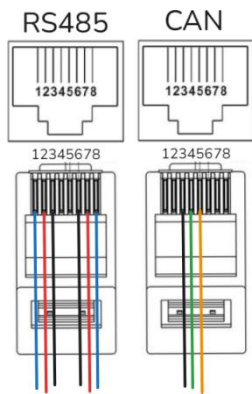
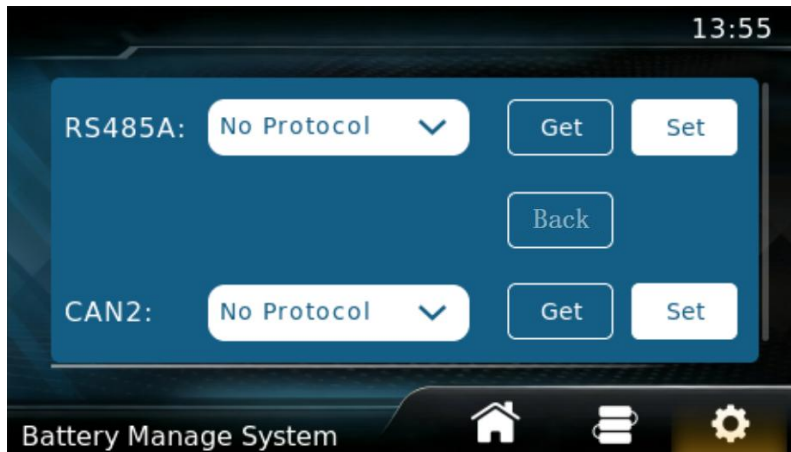
点击时间与日期栏，弹窗显示的时间为当前 BMS 时间，点击返回退出弹窗。

时间修改：选择好需要修改的时间后点击设置，即可完成对 BMS 时间设置。

Click on the time and date bar, and the pop-up window will display the current BMS time. Click on Back to exit the pop-up window.

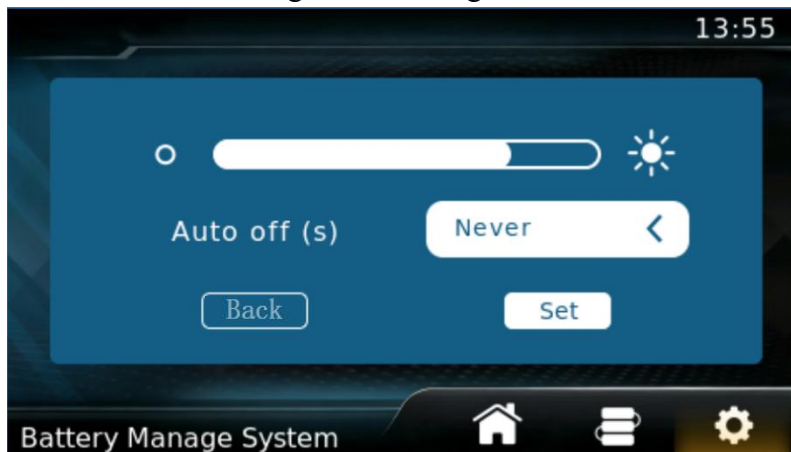
Time modification: After selecting the time to be modified, click on Settings to complete the BMS time setting.

3. 4. 3 协议设置 Protocol Selection



RJ45 引脚	定义说明
1	RS485-B
2	RS485-A
4	CAN-H
5	CAN-L
7	RS485-A
8	RS485-B
3、6	GND

3. 4. 4 亮度设置 Brightness Settings



点击协议设置栏后弹窗，需先点击读，显示当前 BMS 协议。点击返回退出弹窗。

协议选择：通过点击 RS485A 或 CAN2 协议选择框，上下滑动并点击选择需要设置的协议，最后点击设置完成协议的选择。

After clicking on the protocol settings bar, a pop-up window will appear. You need to first click on read to display the current BMS protocol. Click Back to exit the pop-up window.

Protocol selection: Click on the RS485A or CAN2 protocol selection box, swipe up and down and select the protocol you want to set, and finally click Settings to complete the protocol selection.

点击亮度设置，弹窗显示当前屏幕亮度及休眠时间。点击返回退出弹窗。

亮度设置：左右滑动亮度条调整亮度，点击设置后屏幕亮度才会变。

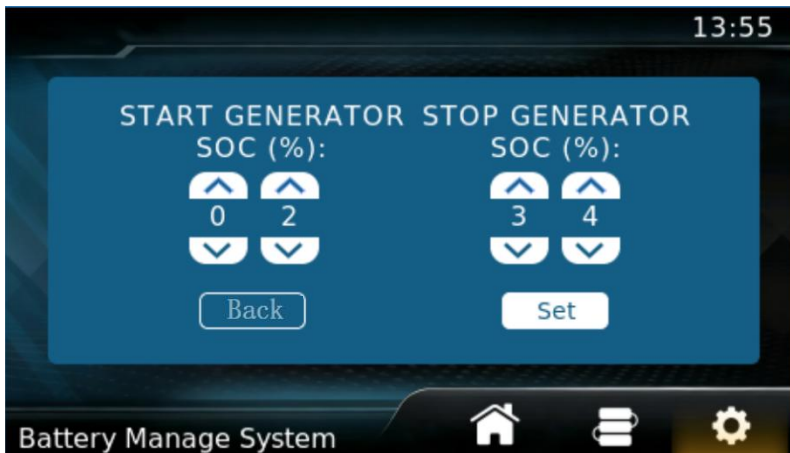
屏幕休眠时间设置：休眠时间框，选择息屏时间后点击设置。

Click on brightness settings, and a pop-up window will display the current screen brightness and sleep time. Click Back to exit the pop-up window.

Brightness setting: Slide the brightness bar left and right to adjust the brightness, and the screen brightness will only change after clicking Settings.

Screen sleep time setting: In the sleep time box, select the sleep time and click Set.

3.4.5 干结点设置 Dry Contact Settings



点击干结点设置栏，弹窗显示当前 BMS 干结点点开启和关闭 SOC。点击返回退出弹窗。

设置干结点：选择好开启及关闭 SOC 后，点击设置即可完成设置。

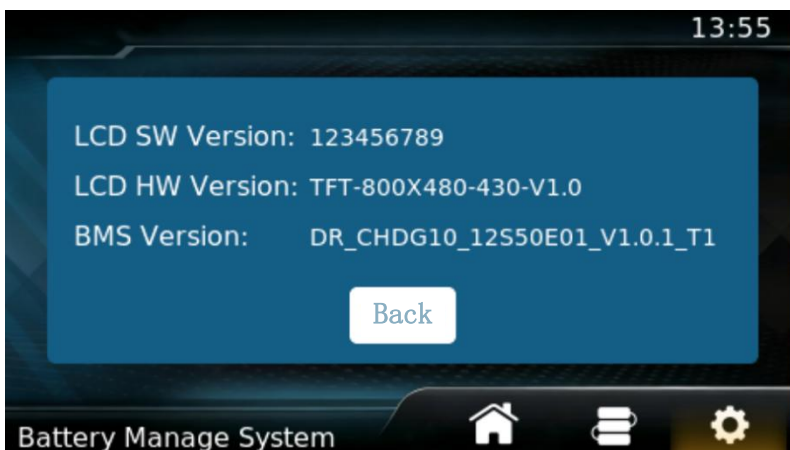
（注：该设置为预留功能，需与配套的 BMS 使用）

Click on the dry node settings bar, and a pop-up window will display the current BMS dry node SOC on and off. Click Back to exit the pop-up window.

Set up dry nodes: After selecting the SOC to turn on and off, click on Settings to complete the setup.

(Note: This setting is a reserved function and needs to be used with the accompanying BMS)

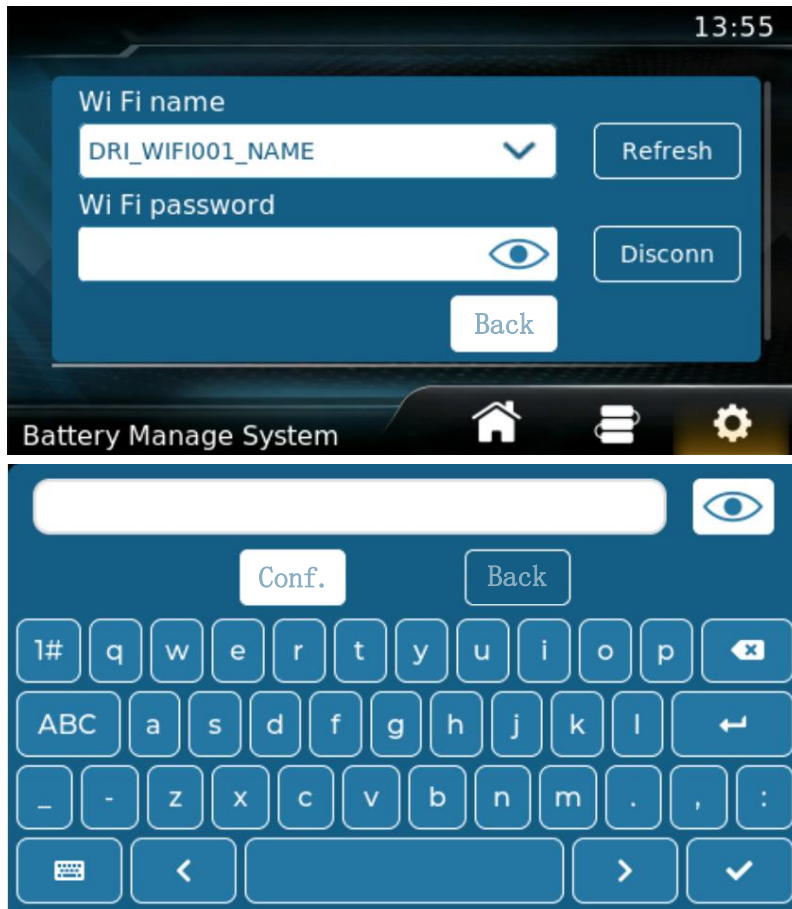
3.4.6 版本信息 Version information



点击版本信息栏后，弹窗显示 LCD 版本信息及 BMS 版本信息。点击返回退出弹窗。

After clicking on the version information bar, a pop-up window will display LCD version information and BMS version information. Click Back to exit the pop-up window.

3.4.7 Wi-Fi设置 Wi-Fi Settings



点击 Wi-Fi 设置栏弹窗配置 WiFi。

WiFi 名称: 刷新后点击下拉框可显示信号强度前 10 个 WiFi 名称。

WiFi 密码: 点击密码输入框弹出密码输入界面, 输入完成后点击确定退出。

配网: WiFi 名称及密码无误后点击连接, 连接成功后屏幕上方显示 WiFi 符号。点击断开 WiFi 账号密码将会忘记。

(注: ①WiFi 账号密码只能显示 ACSII 表字符。②可 APP 配网, 详情见 4.1.9)

Click the Wi-Fi settings bar pop-up to configure WiFi.

WiFi Name: After refreshing, click the dropdown box to display the top 10 WiFi names with the strongest signal.

WiFi Password: Click the password input box to pop up the password entry interface. After entering the password, click "OK" to exit.

Network Configuration: After confirming the WiFi name and password are correct, click to connect. Once connected, a WiFi symbol will appear at the top of the screen. Clicking to disconnect will result in the WiFi account and password being forgotten.

(Note: ①WiFi account passwords can only display ASCII table characters. ②APP-based network configuration is available. For details, see 4.1.9)

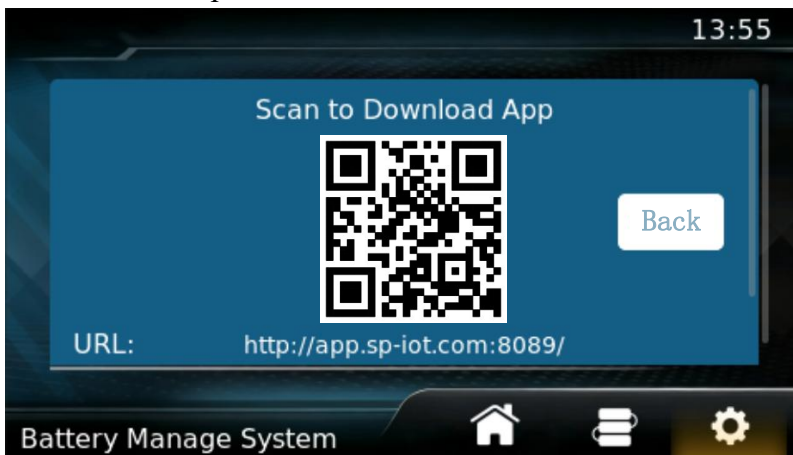
3.4.8 序列码信息 Serial Number Info



点击序列码信息栏，弹窗显示当前屏幕的序列码 (SN) 及序列码对应的二维码。

Click the serial number information bar to display the serial number (SN) of the current screen and the corresponding QR code in a pop-up window.

3.4.9 帮助 Help



点击帮助，弹窗显示 APP 下载二维码及网址。弹窗页面下滑可看到重启 LCD 按钮，点击该按钮可重启屏幕。

Click on help, and a pop-up window will display the app download QR code and website address. The pop-up page slides down to see the restart LCD button, which can be clicked to restart the screen.



4、蓝牙功能介绍 Introduction to Bluetooth Function

4.1 本地连接 Local connection

4.1.1 设备选择界面 Equipment selection interface

步骤 1：点击蓝牙按钮打开蓝牙功能。

（注：需同时打开手机蓝牙功能、定位功能，并允许获取位置信息）

步骤 2：通过搜索、查找或扫码连接设备。

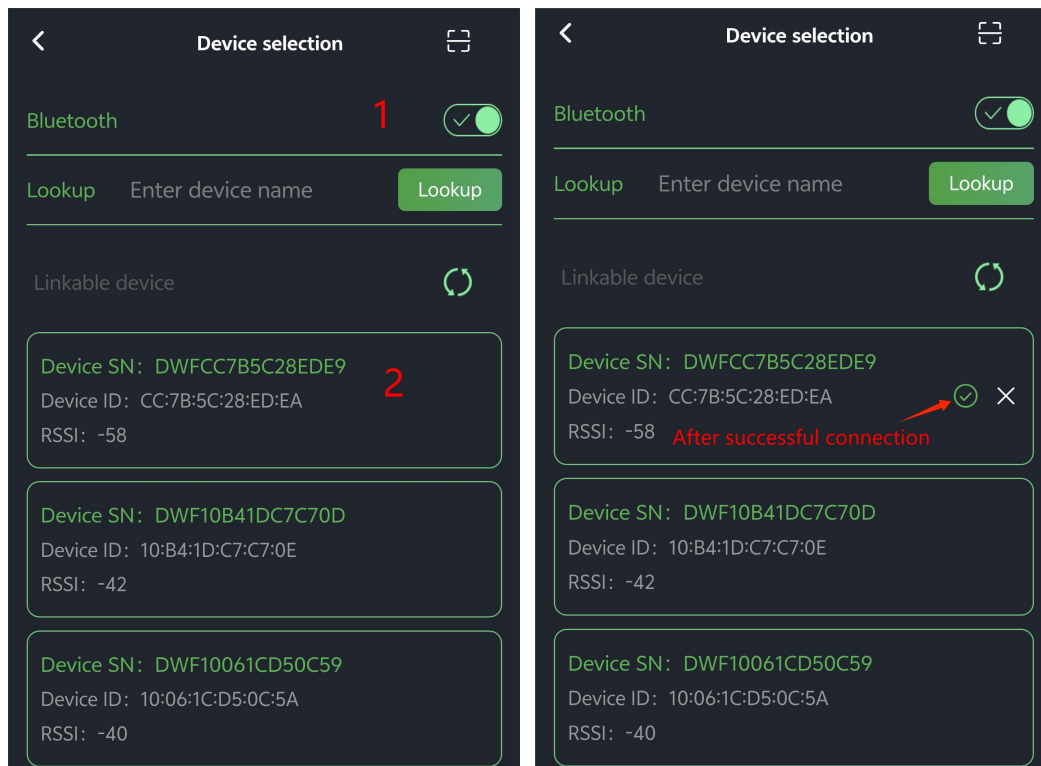
步骤 3：点击需要连接的设备，连接成功将自动跳转到本地监控界面。

Step 1: Click the Bluetooth button to turn on the Bluetooth function.

(Note: Both Bluetooth and location functions of the phone need to be turned on simultaneously, and location information needs to be allowed to be obtained)

Step 2: Connect the device by searching, finding, or scanning the code.

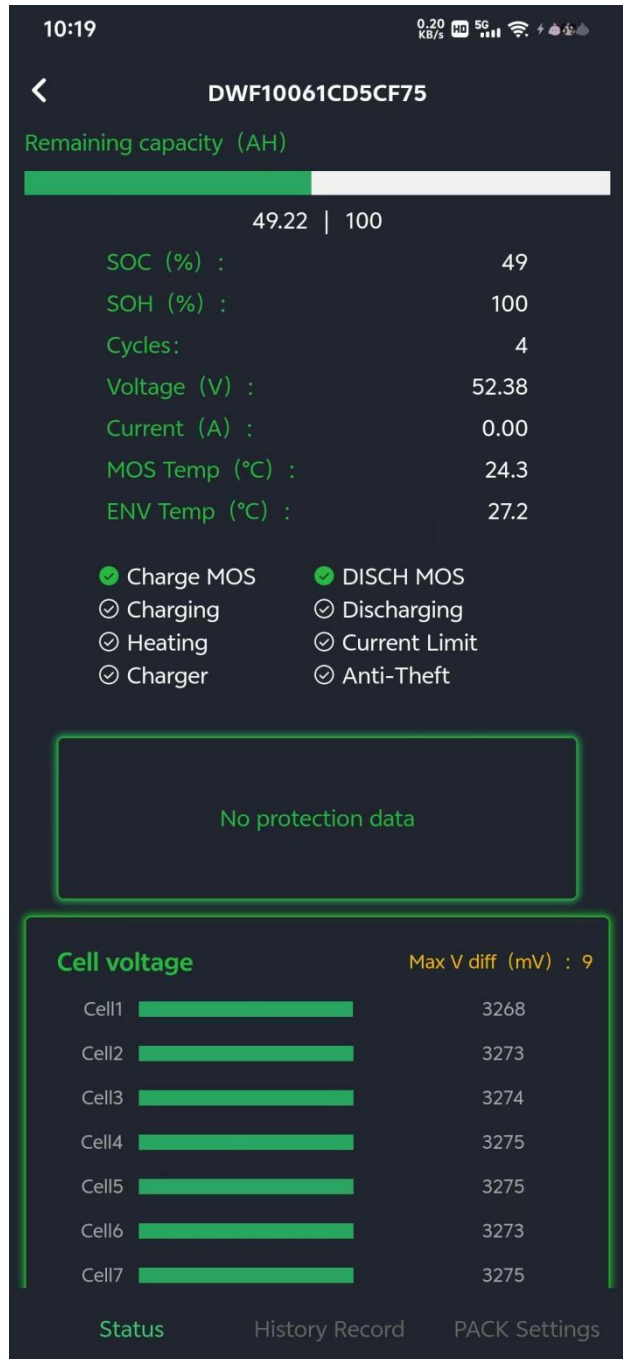
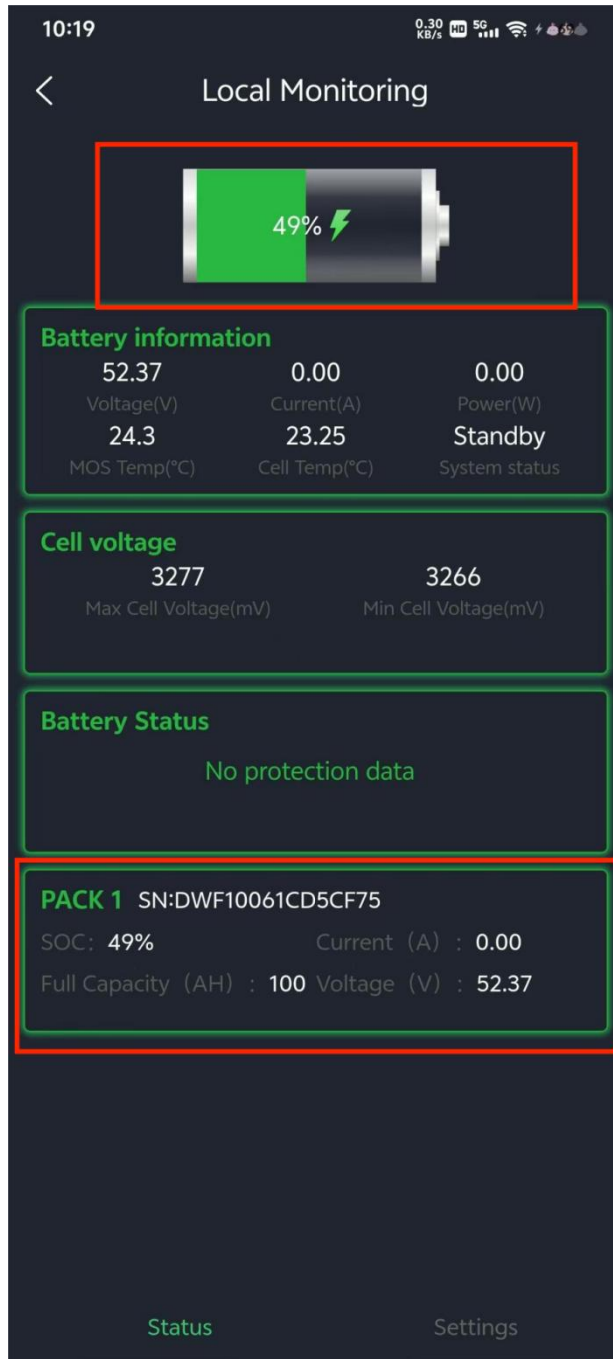
Step 3: Click on the device that needs to be connected, and if the connection is successful, it will automatically jump to the local monitoring interface.



4.1.2 本地监控及设备详情界面 Local monitoring and device details interface

可查看到每个单体电压，电池总压、电流、SOC、SOH、电芯温度、电池状态、电池告警等信息。点击电池图标或 PACK 信息栏可跳转到设备详情界面。

You can view the voltage of each cell, total battery voltage, current, SOC, SOH, cell temperature, battery status, battery warning and other information. Click the battery icon or PACK information bar to jump to the device details interface.



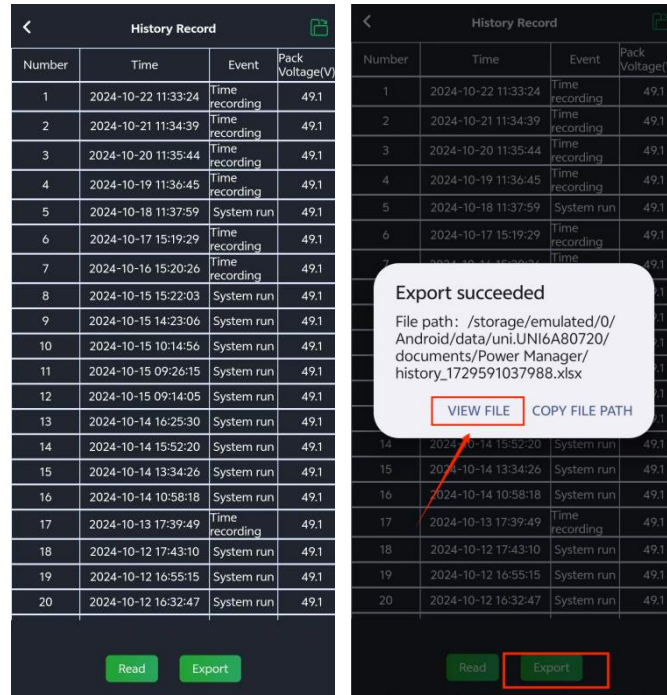
4.1.3 历史记录 History record

可以读取并导出历史数据。

(注：需通过点击查看文件，跳转到 Excel 表格后另存为或分享保存文件。)

Can read and export historical data.

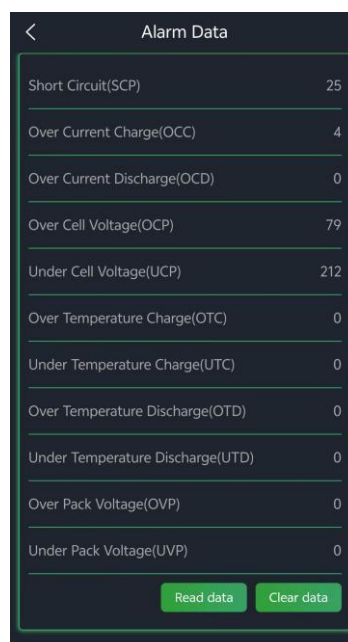
(Note: You need to click to view the file, jump to the Excel spreadsheet, and then save as or share the saved file.)



4.1.4 告警数据 Alarm data

可查看到电池组各种保护的次数。即可知道电池组的运行情况。

You can check the number of times the battery pack has been protected and know the operating status of the battery pack.



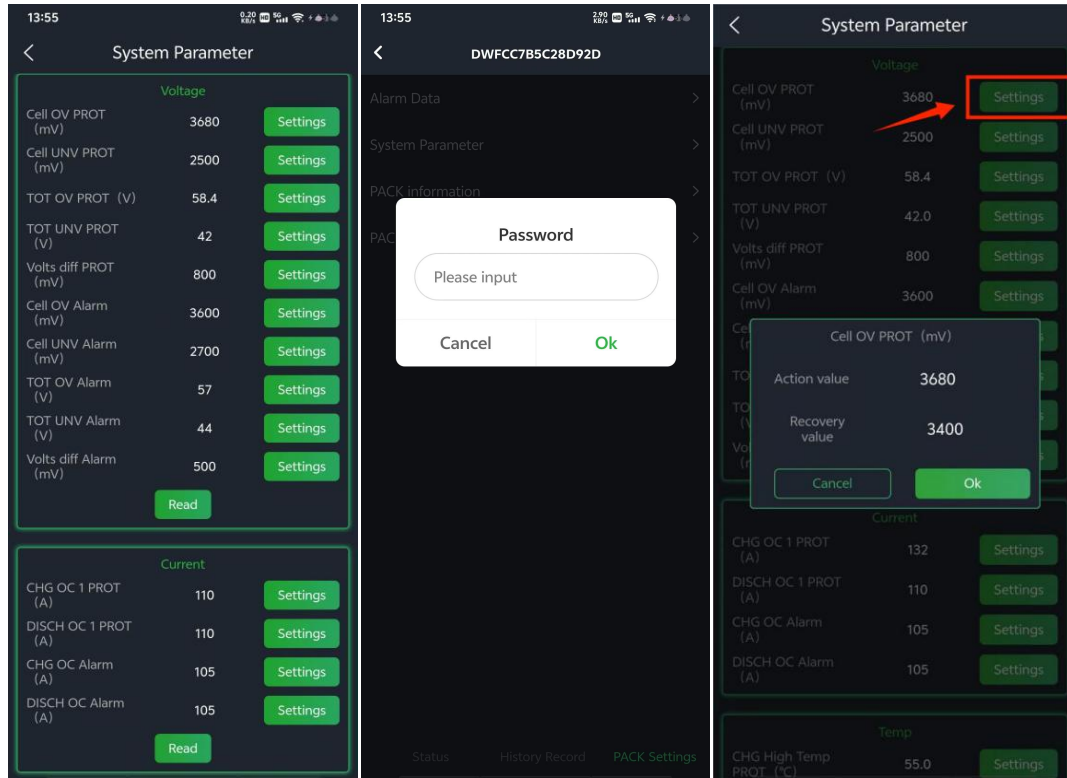
4.1.5 参数设置 System Parameter

可以读取、修改电池保护参数。

（备注：修改密码需找制造厂家）

Can read and modify battery protection parameters.

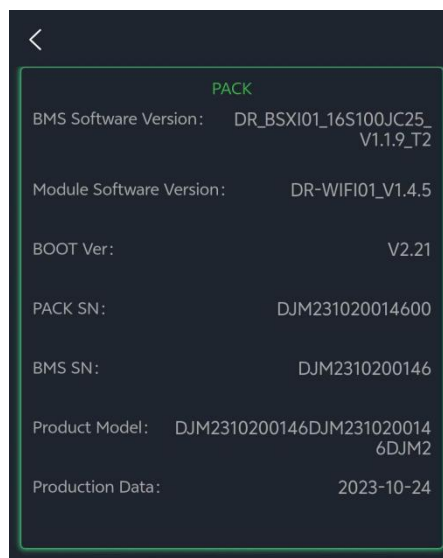
(Note: Changing password requires contacting the manufacturer)



4.1.6 PACK信息 PACK information

可查看BMS软件版本、模块软件版本等。

You can view the BMS software version, module software version, etc.





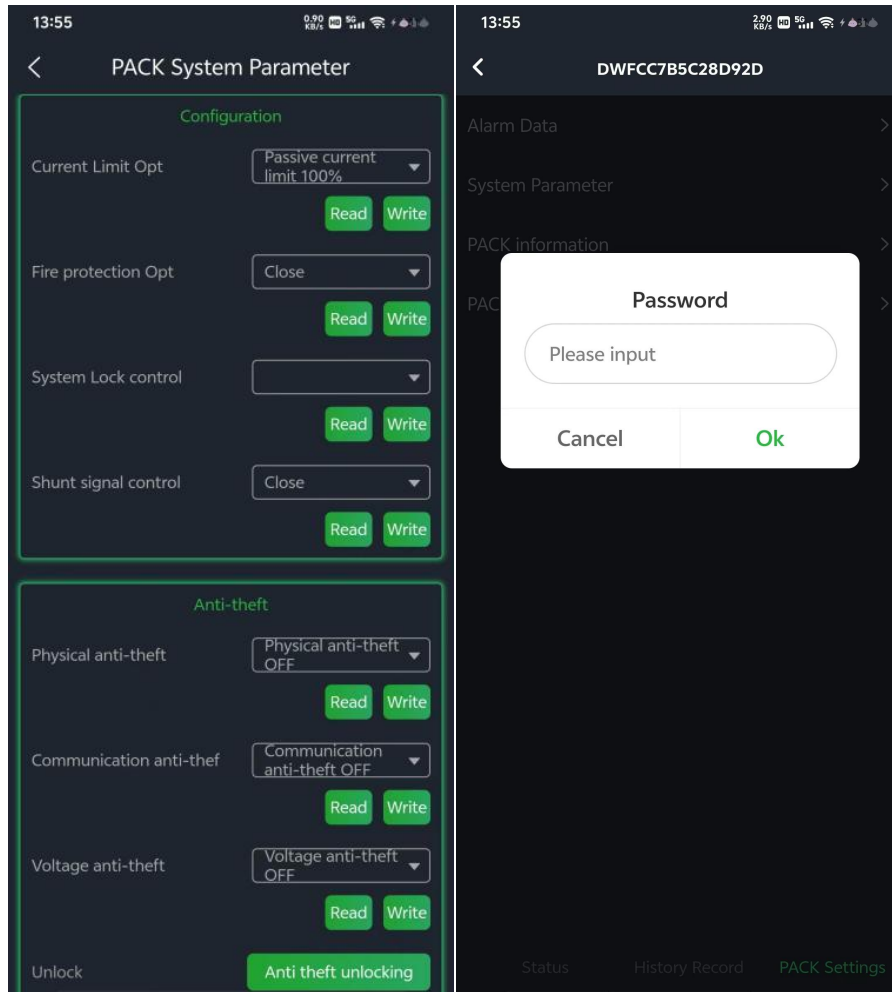
4.1.7 PACK 系统设置 PACK System Parameter

可对限流模式设置、消防设置、分励信号检测、防盗设置、充电控制、放电控制、蜂鸣器使能、休眠设置等功能进行读取和设置。

（备注：修改密码需找制造厂家）

It can read and set the current limiting mode setting, fire setting, shunt signal detection, anti-theft setting, charging control, discharge control, buzzer enable, sleep setting and other functions.

(Note: Changing password requires contacting the manufacturer)



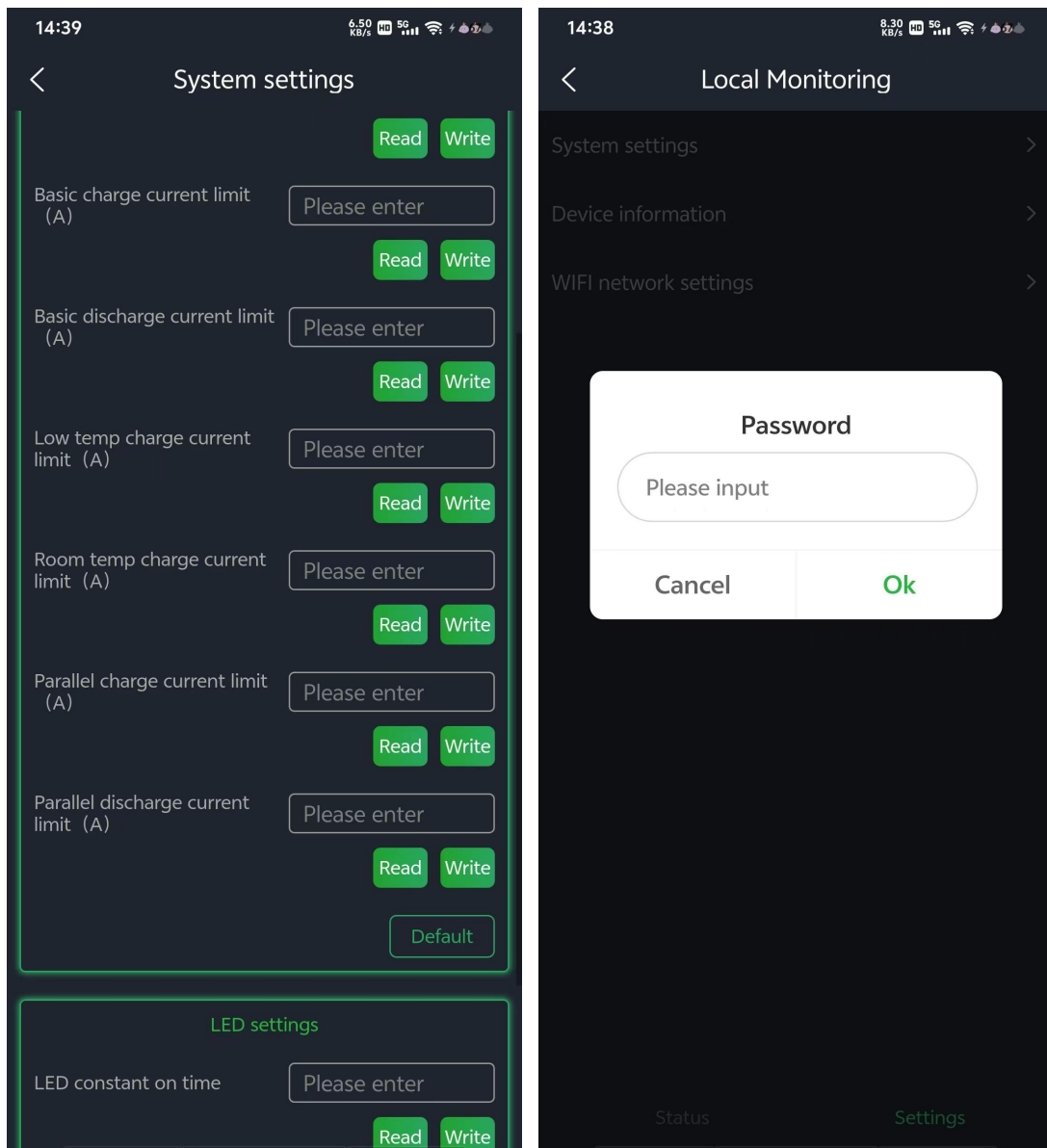
4.1.8 系统设置 System settings

可对充放电使能、强充使能进行控制。以及对充放电限流值、BMS 时间进行修改。

（备注：修改密码需找制造厂家）

It can control the charge and discharge enable and forced charge enable, and modify the charge and discharge current limit value and BMS time.

(Note: Changing password requires contacting the manufacturer)



4.1.9 WIFI 网络配置 WIFI network configuration

WIFI可通过该界面配网。

①输入正确的路由器账号和密码（所配置的WIFI信号需为2.4G频段，即不带_5G后缀）。

②点击配置。

③点击读取。上方显示当前配置的WIFI账号、密码及模块连接状态。

（注：①路由器账号与密码需为英文字符。②手机未连接路由器，则需手动输入路由器账号。



手机已连接路由器，则会自动显示账号在账号输入框中。)

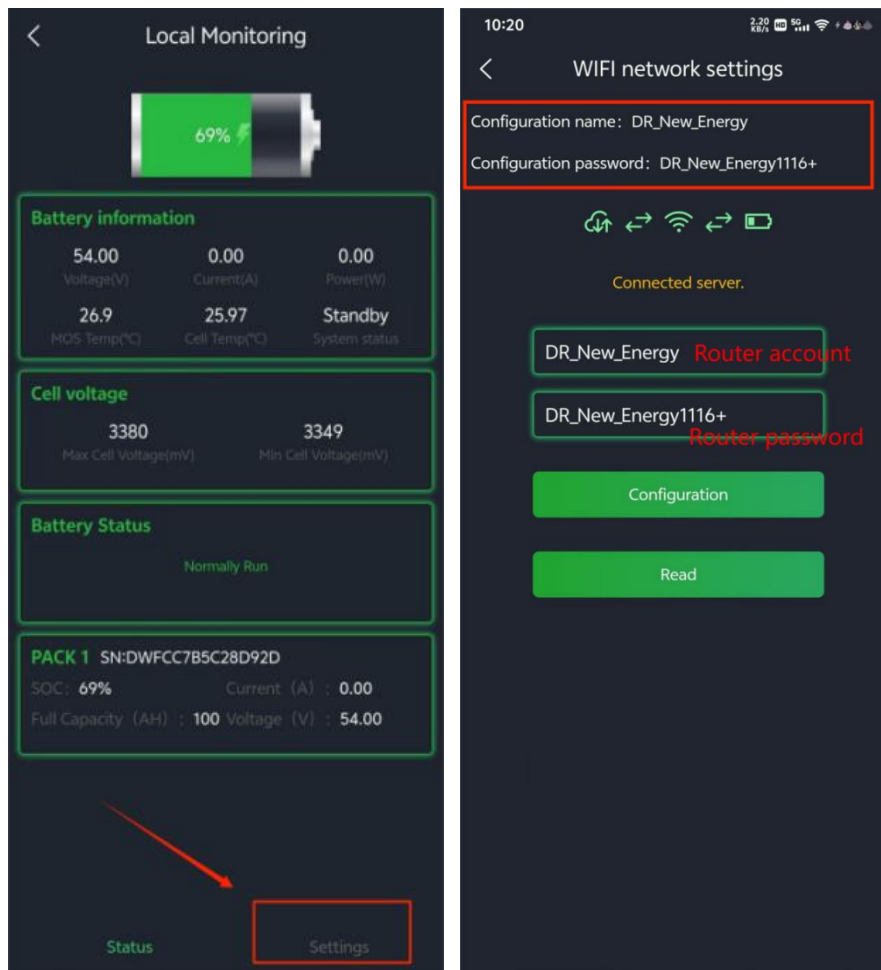
WIFI can be distributed through this interface.

① Enter the correct router account and password (the configured WIFI signal must be in the 2.4G frequency band, i.e. without the 5G suffix).

② Click on configuration.

③ Click to read. The current configured WIFI account, password, and module connection status are displayed above.

(Note: ① The router account and password must be in English characters. ② If the phone is not connected to the router, the router account needs to be manually entered. If the phone is connected to the router, the account will be automatically displayed in the account input box.)





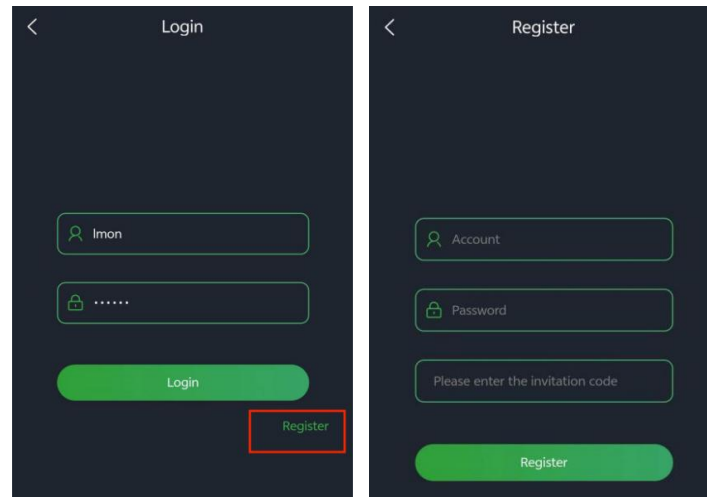
5、WiFi功能介绍 WiFi Function Introduction

5.1 APP 远程连接 APP Remote monitoring

5.1.1 登录界面 Login interface

输入云平台登录的账号、密码，或通过邀请码注册账号。

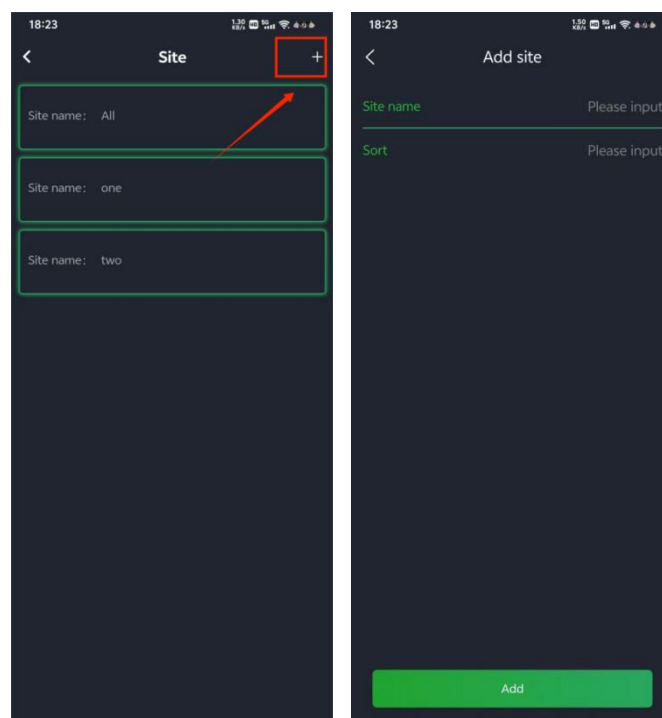
Enter the account and password for logging into the cloud platform, or register an account using an invitation code.



5.1.2 站点 Site

该界面的分组与云平台中的站点分组一致，站点名称为 All 分组中的设备为未标注站点名称的设备。通过点击右上角的“+”添加站点名称。

The grouping on this interface is consistent with the site grouping in the cloud platform. The devices in the All site group are devices without a site name. Click the "+" in the upper right corner to add a site name.



5.1.3 设备选择界面 Equipment selection interface

①添加设备：通过点击右上角的“+”或扫码添加设备。

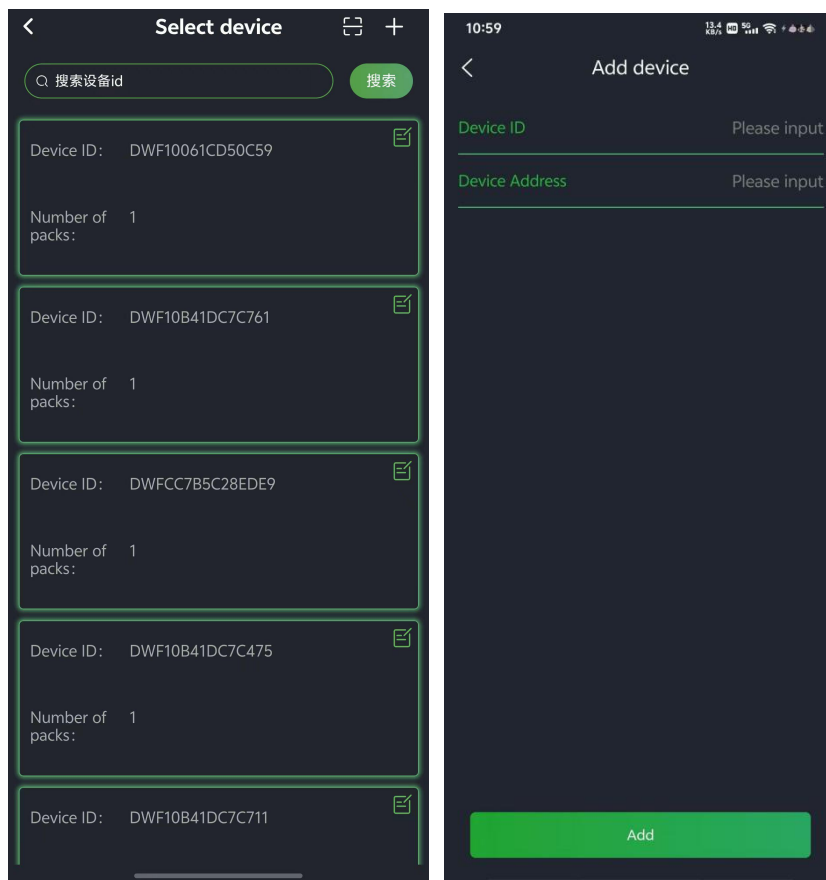
②站点切换：需要切换站点的设备通过点击选择框右上角的图标进入站点界面，选择需要切换到的站点名称后点击确认。

③点击选择需查看数据的设备SN，就可以进入查看设备的详情信息。

① Add device: Add the device by clicking the "+" in the upper right corner or scanning the code.

② Site switching: Devices that need to switch sites can enter the site interface by clicking the icon in the upper right corner of the selection box, selecting the name of the site they want to switch to, and clicking confirm.

③ Click on the SN of the device to view the data, and you can enter to view the detailed information of the device.



5.1.4 网络监控及设备详情界面 Network monitoring and device details interface

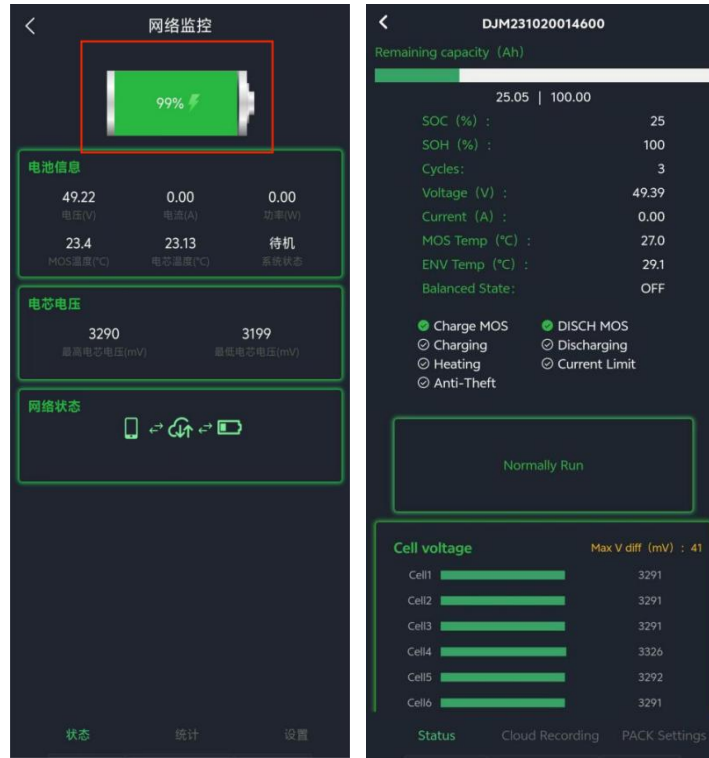
可查看到每个单体电压，电池总压、电流、SOC、SOH、电芯温度、电池状态、电池告警等信息。点击电池图标可跳转到设备详情界面。

（注：数据更新方式为半小时更新一次、有电流变化、故障状态变化及下滑屏幕刷新。）

You can view the voltage of each cell, total battery voltage, current, SOC, SOH, cell temperature, battery status, battery alarm and other information. Click the battery icon to jump to the device

details interface.

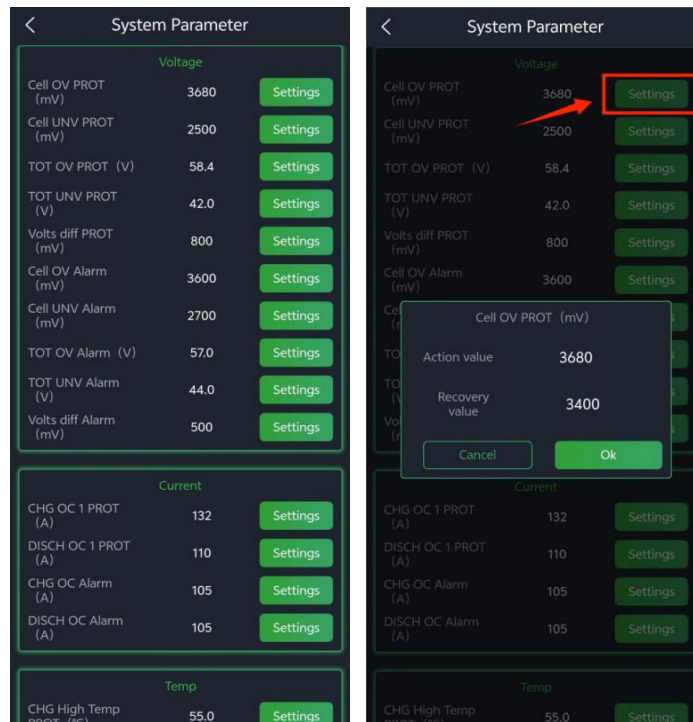
(Note: The data is updated every half an hour, when there is a current change, a fault status change, and a screen refresh when sliding down.)



5.1.5 参数设置 Parameter settings

该界面可读取、修改系统的基本保护参数。

This interface can read and modify the basic protection parameters of the system.

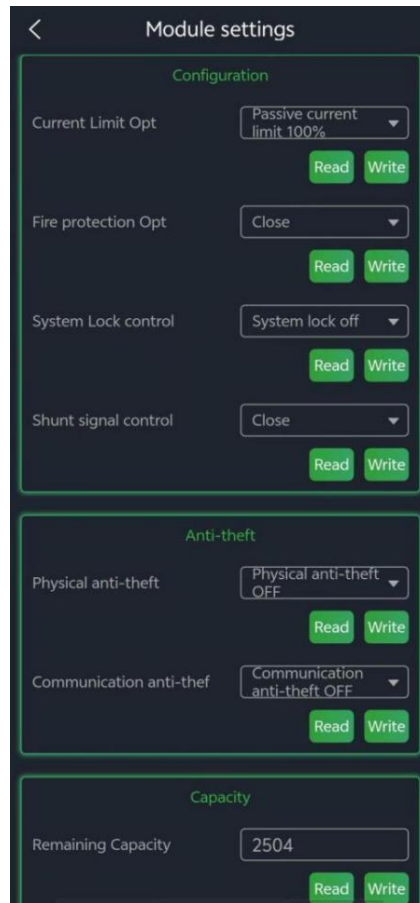




5.1.6 PACK 系统设置 PACK system settings

该界面可对电池系统读取及设置。

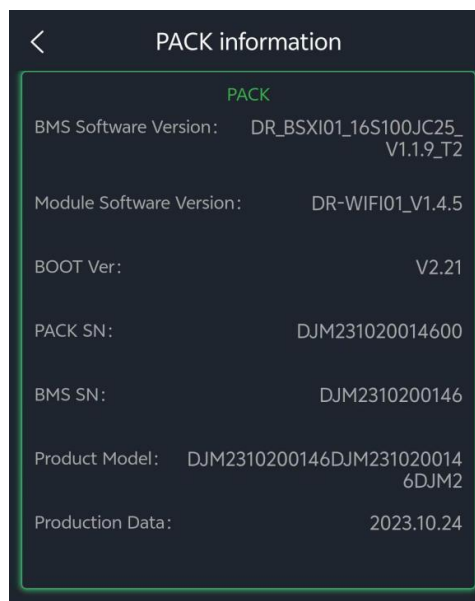
This interface can read and set the battery system.



5.1.7 PACK 信息 PACK information

该界面可查看 BMS 软件版本、模块软件版本等。

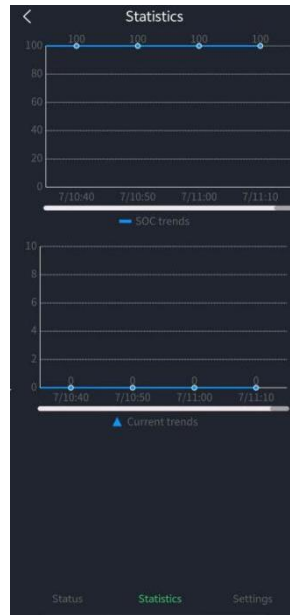
This interface allows you to view BMS software version, module software version, etc.



5.1.8 统计 Statistics

可以查看一天中 SOC 与电流的变化趋势。

You can view the changing trends of SOC and current during the day.



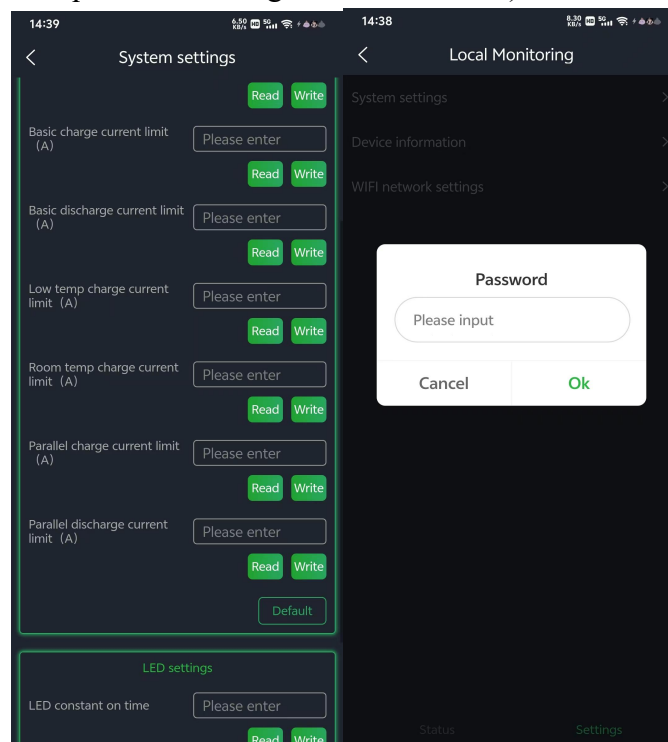
5.1.9 系统设置 System settings

该界面可对充放电使能、强充使能进行控制，对充放电限流值、时间进行修改以及协议选择。

（备注：修改密码需找制造厂家）

This interface can control the charge and discharge enable, forced charge enable, modify the charge and discharge current limit value and time, and select the protocol.

(Note: Changing password requires contacting the manufacturer)

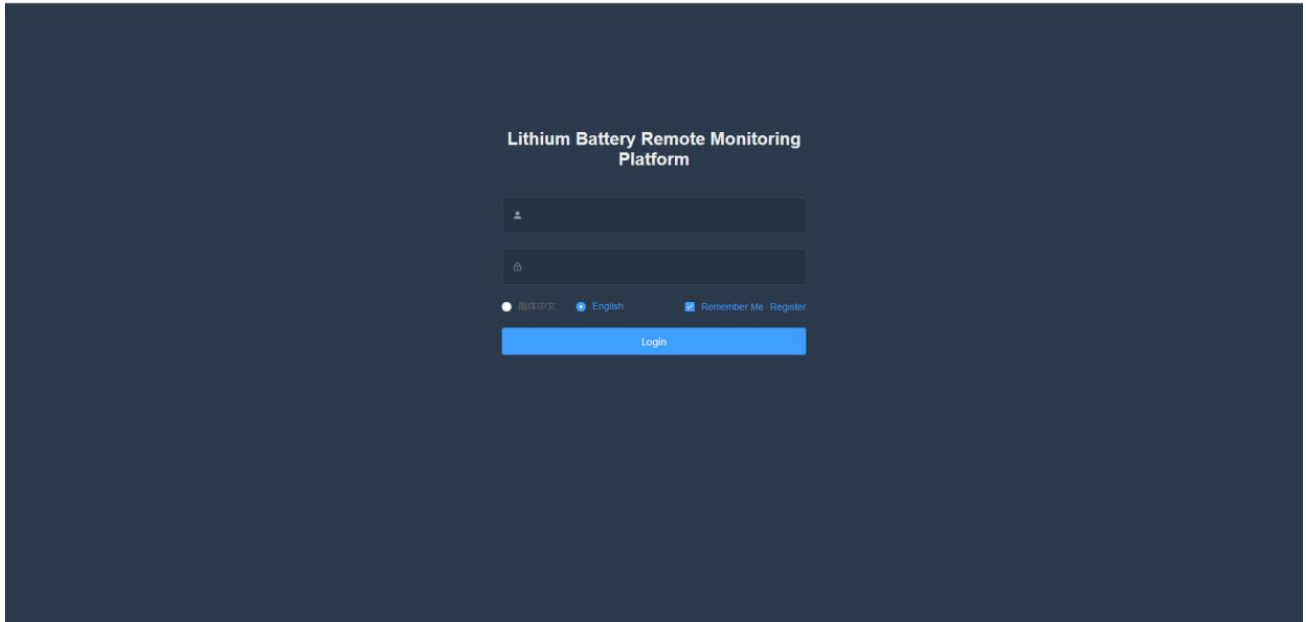


5.2 云平台 Cloud Platform

5.2.1 平台登录 Platform login

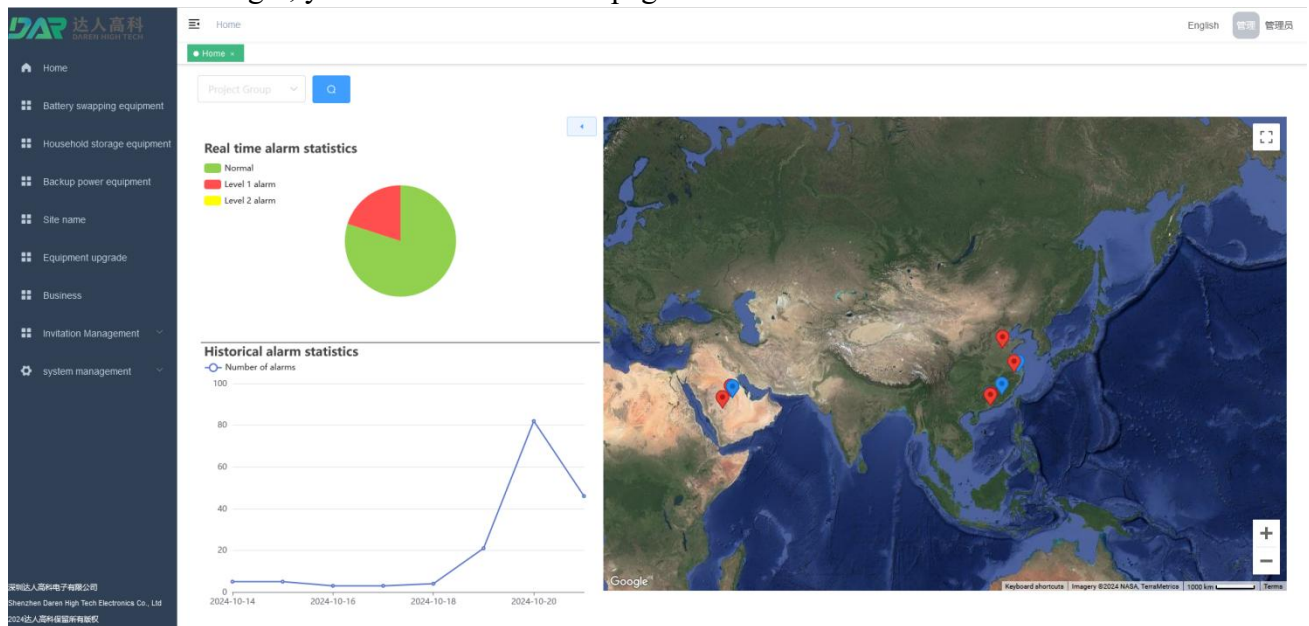
在浏览器地址栏输入提供的云平台网址（www.sp-iot.com）进入登录页面，输入账号和密码登录，也可通过邀请码注册账户。

Enter the provided cloud platform website (www.sp-iot.com) in the browser address bar to enter the login page, enter your account and password to log in, or register an account using an invitation code.



登录成功即可进入首页界面：

After successful login, you can enter the home page interface:



实时告警统计：统计在线设备的告警信息，显示一级告警和二级告警以及正常设备的数量

历史告警统计：统计一周在线设备所发生的告警数量



地图：显示设备的分布情况（此功能仅用于DTU）

Real-time alarm statistics: Statistics of alarm information of online devices, displaying the number of first-level alarms, second-level alarms and normal devices

Historical alarm statistics: Statistics of the number of alarms generated by online devices in a week

Map: Displays the distribution of devices（This function is only used for DTU）

5.2.2 个人中心 User Center

个人中心的用户个人信息修改功能；密码修改功能；告警通知方式修改和配置的功能

Functions to modify personal information of users in the personal center; function to modify passwords; function to modify and configure alarm notification methods

① 个人信息 Personal Information

可对用户信息进行修改

User information can be modified

[Personal Information](#) [Change Password](#) [Alarm notification method](#)

Avatar

* Name

Update

② 告警通知方式 Alarm notification method

这里可以选择勾选相应告警事件的通知方式，支持邮件和国内外短信通知。号码输入时需要加入国际区号，如中国号码前需要加入+86，勾选相应通知方式或相应告警事件后，当设备发生相应告警就会以邮件或短信方式通知用户

Here you can choose to check the notification method of the corresponding alarm event, which supports email and domestic and foreign SMS notifications. When entering the number, you need to add the international area code, such as +86 before the Chinese number. After checking the corresponding notification method or corresponding alarm event, when the device has a corresponding alarm, the user will be notified by email or SMS.



Home / User Center

User Center

Personal Information Change Password Alarm notification method

Notification Method

Phone ☒ +861831685****

Email ☐ 398566***@qq.com

Alarm Event

☒ Fence alarm ☒ Anti theft lock ☐ Short circuit protection ☐ Reverse protection ☒ Individual undervoltage protection ☒ Overall undervoltage protection ☐ High temperature protection for battery charging ☐ High temperature protection during battery discharge ☐ Charging overcurrent protection ☐ Discharge overcurrent protection

Update

5.2.3 设备管理界面 Equipment management interface

此界面显示对应设备类型的全部设备，可查看到相应的客户群体、设备编码、版本信息、状态信息等

This interface displays all devices of the corresponding device type, and you can view the corresponding customer group, device code, version information, status information, etc.

Home x Backup power equipment

Batch Battery Pack Device ID/IMEI/ICCID Project Group Working Status Fence Status Tag Name

Belonging person Tag Name Export Import Batch Bind Bind

	Project Group	Tag Name	Device ID	Update Date	IMEI	ICCID	Device address	Position Type	4G Signal Strength	Hardware Version	Software Version	BMS Software Version	Online Status	Working Status	Fence Status
☐	Expert Testing Department - Backup Power Project	SY49 cycle test	DSM202406290002	2024-06-29 16:15:09	867255071413605	89860323247557479950		E/N	29	V1.0	HX513LE_20240613A	DR-SY49-15 S100BD07-V 1.0.1-T1	Online	Normal	Normal
☐	Expert Testing Department - Backup Power Project	SY49 cycle test	DSM202406270001	2024-06-29 16:14:56	867255071476453	89860324247551672280		GPS Not Positioned	27	V1.0	HX513LE_20240613A	DR-SY49-15 S100BD07-V 1.0.1-T2	Online	Alarm	Normal

Total 2 100/page 1 Go to 1

5.2.4 绑定设备 Bind

在设备管理界面，点击绑定设备，输入设备编码后填写设备的安装地址即可完成设备绑定，设备绑定前需要上一级账户先添加设备编码。

In the device management interface, click Bind Device, enter the device code and fill in the device installation address to complete the device binding. Before binding the device, the upper-level account needs to add the device code first.

Home / Backup power equipment

Home x Backup power equipment

Batch Battery Pack Device ID/IMEI/ICCID Station Name Client Name Working Status Fence Status Online Status

Belonging person Station Name Export

Import Batch Bind Bind

Save

* Device ID

* Device address

Cancel Confirm

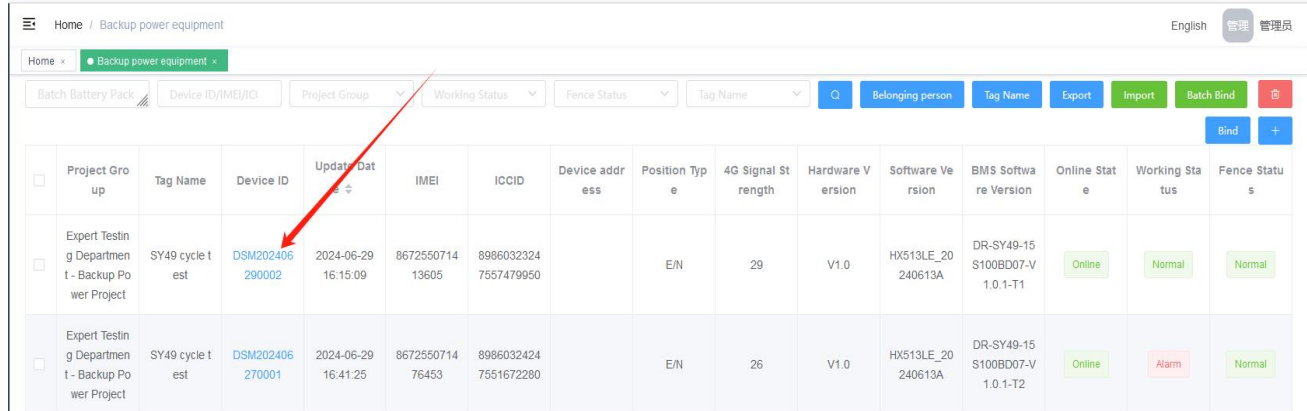
Ve	BMS Software Version	Online Status	Working Status	Fence Status
DR-SY43-15 S100BD08-V 1.0.2-T9	Offline	Normal	Normal	
DR-SY43-15 S100BD08-V 1.0.2-T9	Offline	Alarm	Normal	
DR-SY43-15 S100BD08-V 1.0.2-T8	Offline	Normal	Normal	



5.2.5 监控设备信息 Monitoring device information

配网成功的 WIFI 设备上线后会显示在线状态，可点击设备号查看详细信息。

After the WIFI device with successful network configuration goes online, its online status will be displayed. You can click the device number to view detailed information.



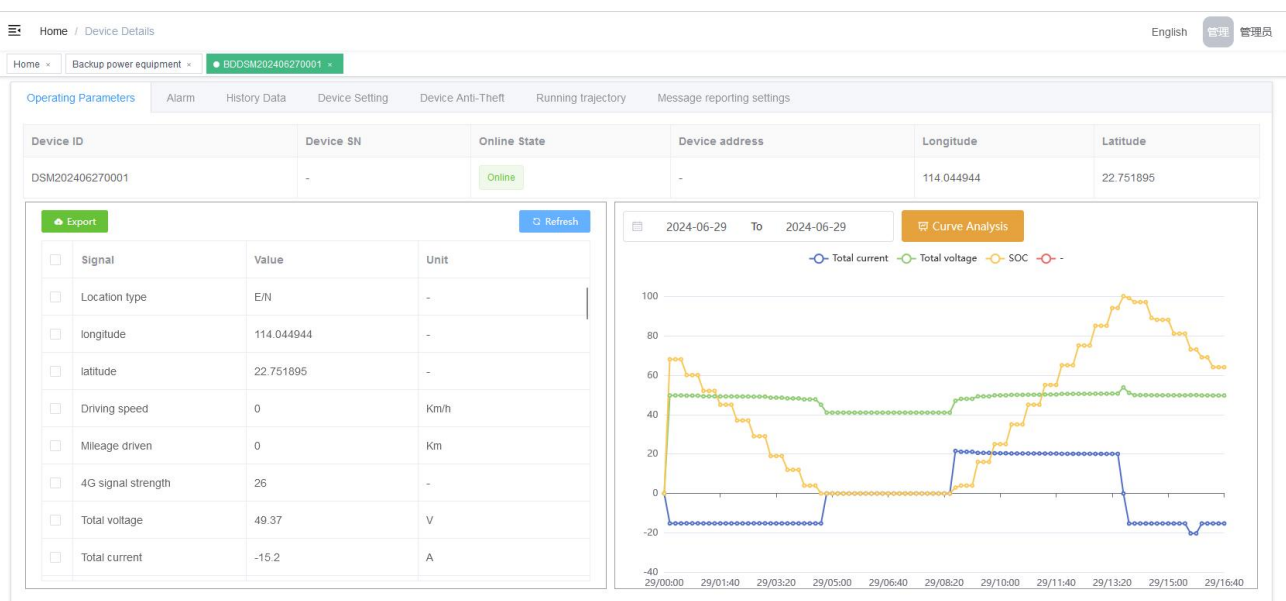
Project Group	Tag Name	Device ID	Update Date	IMEI	ICCID	Device address	Position Type	4G Signal Strength	Hardware Version	Software Version	BMS Software Version	Online Status	Working Status	Fence Status
Expert Testing Department - Backup Power Project	SY49 cycle test	DSM202406290002	2024-06-29 16:15:09	867255071413605	89860323247557479950		E/N	29	V1.0	HX513LE_20240613A	DR-SY49-15 S100BD07-V 1.0.1-T1	Online	Normal	Normal
Expert Testing Department - Backup Power Project	SY49 cycle test	DSM202406270001	2024-06-29 16:41:25	867255071476453	89860324247551672280		E/N	26	V1.0	HX513LE_20240613A	DR-SY49-15 S100BD07-V 1.0.1-T2	Online	Alarm	Normal

5.2.6 设备详细信息 Equipment Details

① 运行参数 Operating Parameters

点击设备编码将跳转至运行参数，在运行参数可查看到电池电压、电流、容量、温度、电池状态、生产信息、软硬件版本信息等，勾选相应信号量也可进行曲线分析。

Clicking the device code will jump to the operating parameters, where you can view the battery voltage, current, capacity, temperature, battery status, production information, software and hardware version information, etc. You can also perform curve analysis by checking the corresponding signal quantity.





② 告警信息 Alarm

点击告警可查看到电池组实时的告警信息和历史告警信息以及告警发生的时间，结束的时间等。

Click on the alarm to view the real-time alarm information and historical alarm information of the battery pack, as well as the time when the alarm occurred and when it ended.

实时告警 Real-time Alarm:

The screenshot shows the 'Real-time Alarm' tab selected. It displays a table with the following data:

Device ID	Alarm Description	Start Time	Alarm Level
DSM202406270001	Battery discharge high temperature alarm	2024-06-29 13:46:54	3
DSM202406270001	Environmental high temperature alarm	2024-06-29 08:43:58	3

Below the table, there is a pagination bar showing 'Total 2', '100/page', and a 'Go to 1' button.

历史告警：支持选择日期导出设备的所有告警信息

Historical Alarm: Supports exporting all alarm information of the device by selecting a date

The screenshot shows the 'Historical Alarm' tab selected. It includes a date range selector set to '2024-06-29' and an 'Export' button. The table below contains the following data:

Device ID	Alarm Description	Start Time	End Time	Alarm Level
DSM202406270001	Individual overvoltage protection	2024-06-29 13:38:06	2024-06-29 13:46:49	2
DSM202406270001	Overall overvoltage alarm	2024-06-29 13:37:04	2024-06-29 13:48:22	3
DSM202406270001	Individual overvoltage alarm	2024-06-29 13:36:50	2024-06-29 13:52:00	3

③ 历史数据 History Data

云历史数据：模块定时及存在充放电事件上传的历史数据或通过点击刷新记录的数据

Cloud Historical Data: historical data uploaded by module timing and charge and discharge events or data refreshed by clicking

The screenshot shows the 'Cloud Historical Data' tab selected. It includes a date range selector set to '2024-06-29' and an 'Export' button. The table below contains the following data:

Device ID	Creation Date	Batch Number	Position Type	Longitude	Latitude	Driving Speed (Km/h)	Driving Mileage (Km)	4G Signal Strength	Total Voltage (V)	Total Current (A)	SOC (%)	SOH (%)	Battery Cycle Count (times)	Remaining Capacity	Failure
DSM202406270001	2024-06-29 00:01:23	1719619283999	E/N	114.044919	22.75171	0	0	25	49.68	-15.16	68	100	5	68	1
DSM202406270001	2024-06-29 00:31:23	1719621083999	E/N	114.044905	22.751698	0	0	25	49.58	-15.12	60	100	5	60.32	1



本地历史数据：设备因网络问题离线后模块记录的数据。当模块再次上线时，上传离线时记录的数据（仅用于DTU模块）

Local Historical Data: The data recorded by the module after the device goes offline due to network problems. When the module comes online again, the data recorded when it was offline is uploaded (For DTU modules only)

Home / Device Details

English 管理 管理员

Device Details

Operating Parameters Alarm History Data Device Setting Device Anti-Theft Running trajectory Message reporting settings

Cloud Historical Data Local Historical Data

2024-06-29 To 2024-06-29 Export

Device ID	Creation Date	Event recording	Position Type	Longitude	Latitude	Driving Speed (Km/h)	Driving Mileage (Km)	4G Signal Strength	Total Voltage (V)	Total Current (A)	SOC (%)	SOH (%)	Battery Cycle Count (times)	Remaining Capacity
DSM202406270001	2024-06-29 02:45:00	Timed recording							50.05	20.27	45	100	15	46.68
DSM202406270001	2024-06-29 07:20:30	Timed recording							49.73	-15.2	76	100	15	79.66

Total 2 100/page < 1 > Go to 1

④ 设备设置 Device Setting

参数设置：可修改单体，总体电压保护参数以及温度、电流，容量等参数

Parameter Setting: You can modify the single cell, overall voltage protection parameters, as well as temperature, current, capacity and other parameters

Home / Device Details

English 管理 管理员

Device Details

Operating Parameters Alarm History Data Device Setting Device Anti-Theft Running trajectory Message reporting settings

Parameter Setting Module Operation

Please choose the battery Write Param Read Param

Cell voltage(mV)

Over DISCH PROT Over DISCH Alarm Over C Alarm Over C PROT

Action 2500 2800 3500 3650

Release 2900 2900 3340 3340

Charging TEMP(°C)

Low PROT Low Alarm High Alarm High PROT

Action 0 2 55 70

Release 5 5 50 50

SOC(%)

SOC low alarm 20

SOC low alarm receive 25

Overall voltage(V)

Over DISCH PROT Over DISCH Alarm Over C Alarm Over C PROT

Action 40.5 45 52.5 54

Release 47 47 51 51

DISCH TEMP(°C)

Low PROT Low Alarm High Alarm High PROT

Action -20 -10 55 70

Release -10 0 50 50

Other

Constant V value(10mV) 5250

Constant C value(mA) 1500

Starting V 3450

Starting V diff 30

Current 1(A)

Over DISCH1 PROT Over DISCH1 Alarm Over C1 Alarm Over C1 PROT

Action 110 100 100 110

Release 95 95

Delay 5000 1000 1000 5000

Voltage diff(mV)

Over Alarm Over PROT

Action 800 1000

Release 500 500

Capacity related

Remaining Capacity 0.01AH 5645

Full Capacity 0.01AH 10350

Design Capacity 0.01AH 10000

- 29 -



模块操作：可进行限流模式设置、消防设置、分励信号检测、充、放电 MOS 控制、蜂鸣器使能、休眠设置等功能

Module Operation: current limiting mode setting, fire setting, shunt signal detection, charge and discharge MOS control, buzzer enable, sleep setting, etc.

⑤ 设备防盗 Device Anti-Theft

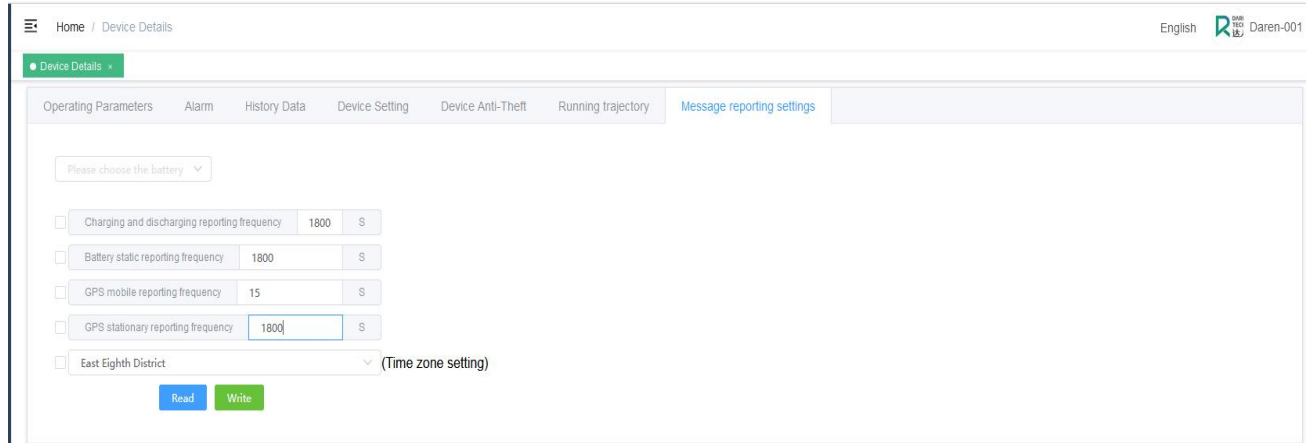
可远程开启物理防盗和通讯防盗功能，并支持远程解锁。操作相应的指令前需要先下发防盗密码

The physical anti-theft and communication anti-theft functions can be remotely activated, and remote unlocking is supported. The anti-theft password must be issued before operating the corresponding command.

5.2.7 报文上报设置 Message reporting settings

这个界面可以对电池信息更新的时间进行设置以及时区的设置，充、放电上报间隔和待机上报间隔默认 30 分钟更新一次电池信息，可支持设置。

This interface can set the battery information update time and time zone. The charge and discharge reporting interval and standby reporting interval are updated every 30 minutes by default.



时区设置：选择所在国家的时区，在云平台看到的电池数据时间就可以和当地时间一致

Time zone setting: Select the time zone of your country, and the battery data time you see on the cloud platform will be consistent with the local time.

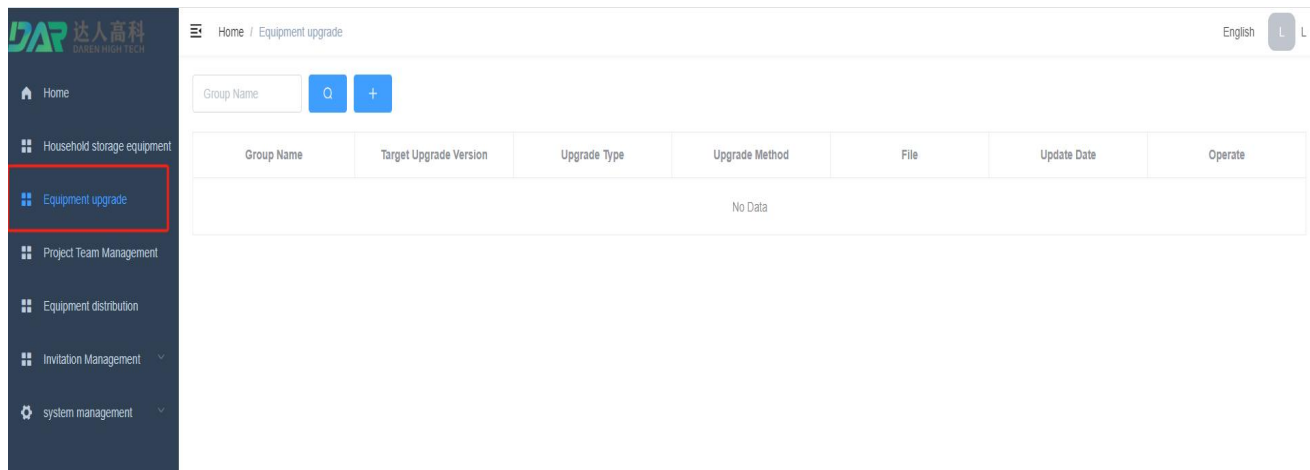
5.2.8 设备升级 Equipment upgrade

可支持对 BMS, WIFI 模块进行远程升级，可批量或单台下发升级任务，方便功能的优化与更新。

（注：升级功能需找制造厂家）

It can support remote upgrade of BMS and WIFI modules, and can issue upgrade tasks in batches or individually to facilitate function optimization and updating.

(Note: Upgrading functionality requires contacting the manufacturer)

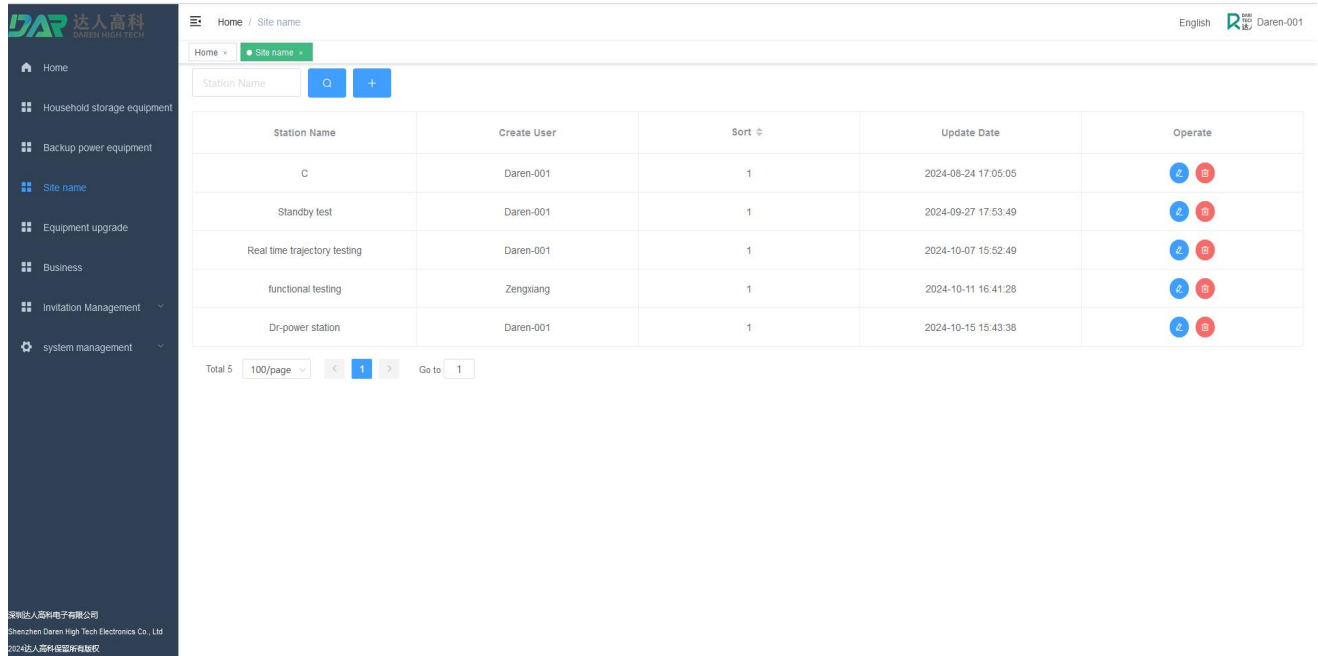




5.2.9 站点名称 Site name

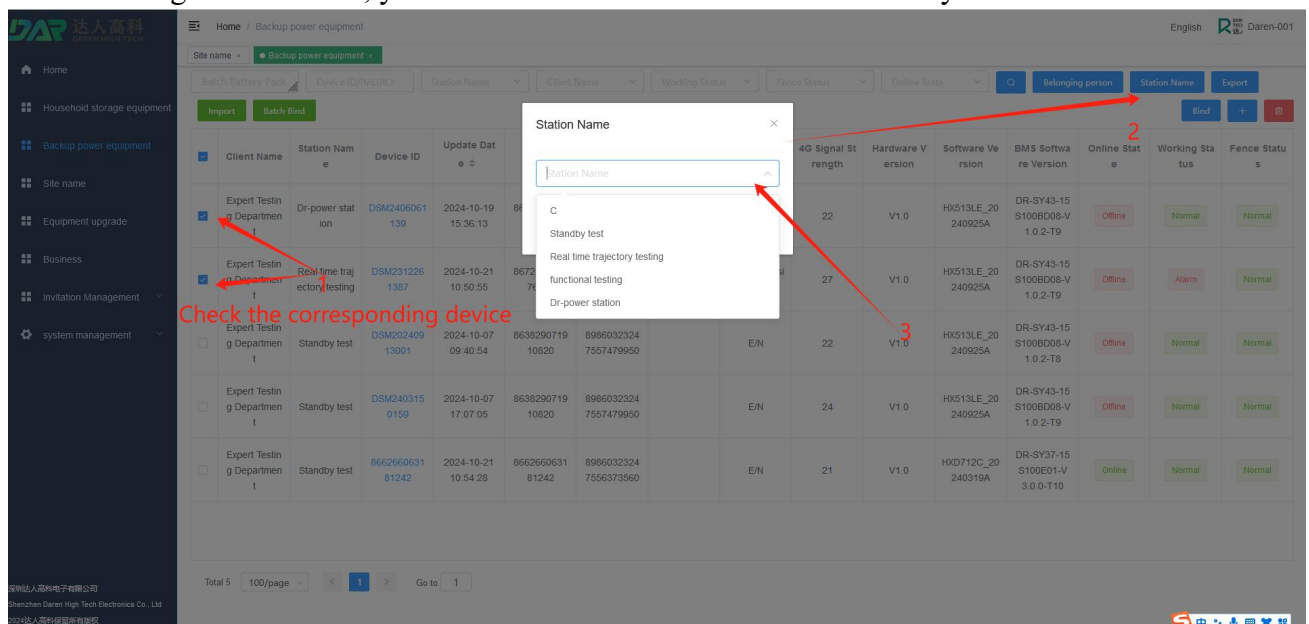
可对不同的电池组进行命名，方便对电池组进行管理和区别。

Different battery packs can be named to facilitate management and distinction of battery packs.



首先要创建站点名称，创建好站点名称后在设备监控界面勾选相应的设备，再点击右上角站点名称，点击站点名称后就可以对所选择的电池设备进行站点命名

First, you need to create a site name. After creating the site name, check the corresponding device in the device monitoring interface, and then click the site name in the upper right corner. After clicking the site name, you can name the site for the selected battery device.

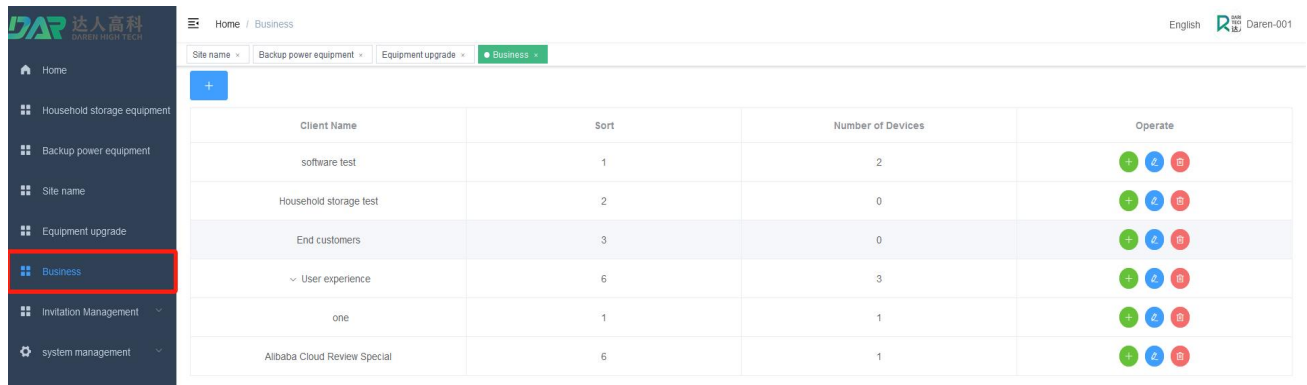




5.2.10 我的业务 Business

这里体现的是下级客户群体，可以查看到下级客户的设备数量。当创建二级账号时需要在此界面创建客户名称，创建客户名称后在创建二级账号时选择相应的客户名称。

This reflects the subordinate customer group, and you can view the number of devices of the subordinate customers. When creating a secondary account, you need to create a customer name on this interface. After creating the customer name, select the corresponding customer name when creating a secondary account.



The screenshot shows the 'Business' interface with a table of subordinate customers. The table has columns for Client Name, Sort, Number of Devices, and Operate. The 'Business' menu item is highlighted in the sidebar.

Client Name	Sort	Number of Devices	Operate
software test	1	2	  
Household storage test	2	0	  
End customers	3	0	  
User experience	6	3	  
one	1	1	  
Alibaba Cloud Review Special	6	1	  

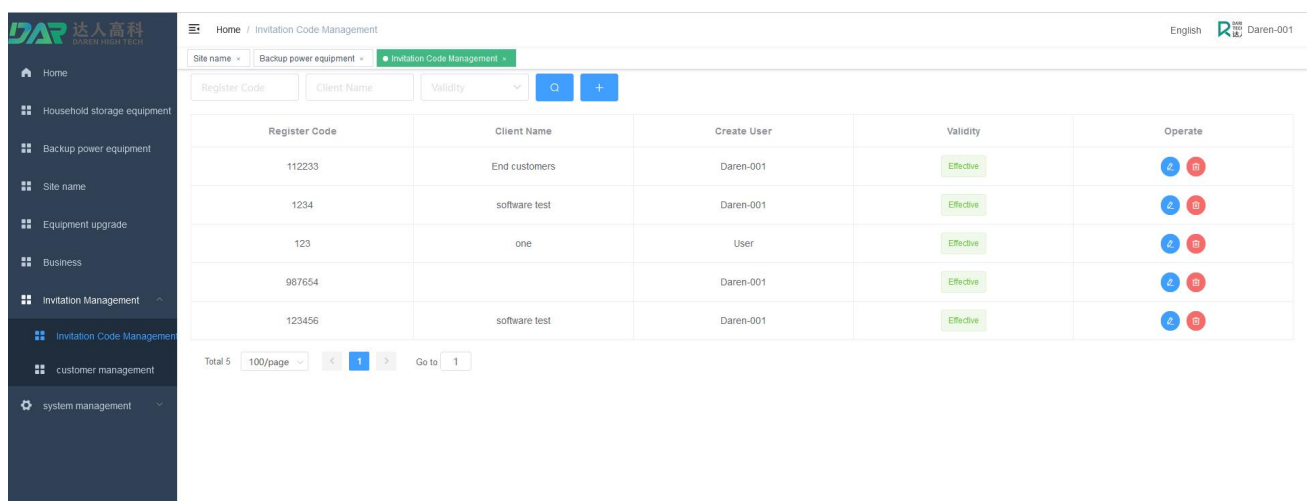
5.2.11 邀请管理 Invitation Management

用户可以通过邀请码自己注册，使用云平台更加便捷，在这个界面可以对注册的用户进行管理。

(适用于终端客户，角色的权限只能选择终端客户，只能查看到自己的电池设备信息，不能查看到其他人的电池信息)

Users can register themselves through the invitation code, which makes it more convenient to use the cloud platform. Registered users can be managed on this interface.

(Applicable to end customers, the role permissions can only select end customers, and can only view their own battery equipment information, not other people's battery information)



The screenshot shows the 'Invitation Code Management' interface with a table of registered users. The table has columns for Register Code, Client Name, Create User, Validity, and Operate. The 'Invitation Management' menu item is highlighted in the sidebar.

Register Code	Client Name	Create User	Validity	Operate
112233	End customers	Daren-001	Effective	 
1234	software test	Daren-001	Effective	 
123	one	User	Effective	 
987654		Daren-001	Effective	 
123456	software test	Daren-001	Effective	 

Total 5 100/page 1 Go to 1



邀请码创建示例：

第一步：先在我的业务界面创建客户名称

第二步：角色管理界面权限创建终端客户角色

第三步：在邀请码管理界面点击添加就可以设置邀请码

Example of creating an invitation code:

Step 1: Create a customer name in the My Business interface

Step 2: Create a terminal customer role in the role management interface

Step 3: Click Add in the invitation code management interface to set the invitation code

用户管理界面 customer management:

此界面可以对通过邀请码注册的用户进行管理，点击编辑可以对用户进行重置密码，对账号的有效性进行管理

This interface can manage users who registered through invitation codes. Click Edit to reset the user's password and manage the validity of the account

The screenshot shows the 'customer management' interface. It includes a sidebar with navigation options like 'Home', 'Household storage equipment', 'Backup power equipment', 'Site name', 'Equipment upgrade', 'Business', 'Invitation Management', 'Invitation Code Management', 'customer management', and 'system management'. The main content area displays a table of users with columns: Client Name, Name, Username, Mobile Number, Superior user, Roles, Avatar, Display images, Registration Date, Notification Method, Enabled, and Operate. The table lists several users, including 'End customers' and 'one', with their respective details and actions.

Client Name	Name	Username	Mobile Number	Superior user	Roles	Avatar	Display images	Registration Date	Notification Method	Enabled	Operate
End customers	Zengxiang	Zengxiang		Daren-001	End customers			2024-10-11 16:41:04	-	☒	Edit Delete
End customers	zeng123	zeng123		Daren-001	End customers			2024-10-08 16:40:52	-	☒	Edit Delete
one	bind	bind		User	test			2024-10-08 08:43:20	-	☒	Edit Delete
	Zm	Zm		Daren-001	YQ1			2024-08-27 15:26:08	-	☒	Edit Delete
	lifang	lifang		Daren-001	YQ1			2024-08-20 11:26:30	-	☒	Edit Delete
	zc	zc		Daren-001	YQ1			2024-08-02 11:33:16	-	☒	Edit Delete
	zx	zx		Daren-001	YQ1			2024-08-02 11:26:37	-	☒	Edit Delete

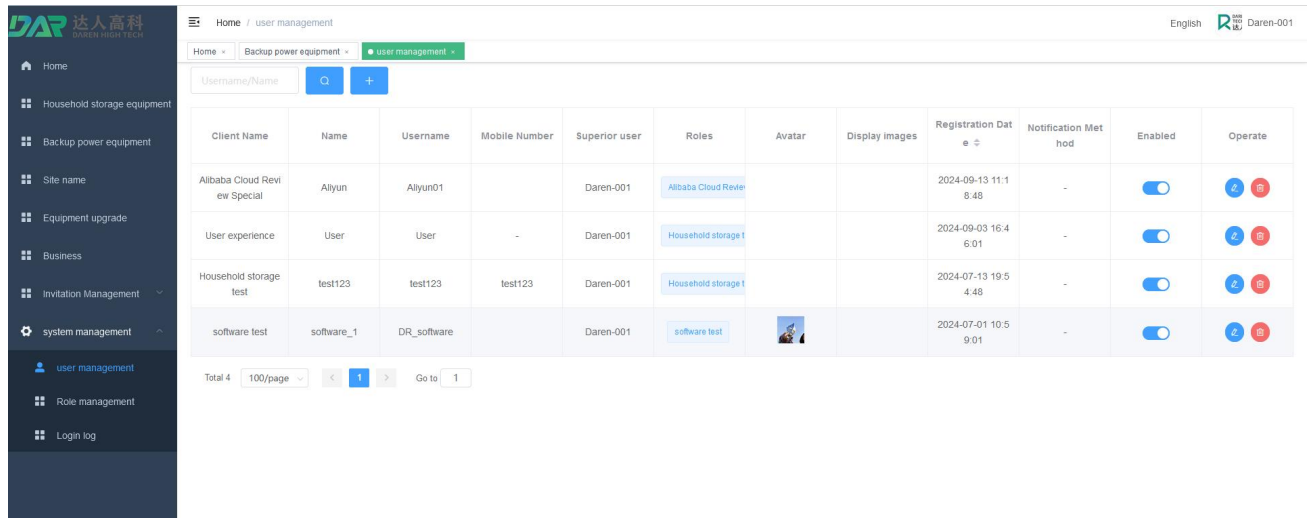
Total 7 100/page < 1 > Go to 1



5.2.12 系统设置 system management

系统设置中有用户管理，角色管理，登录日志等信息；

The system settings include user management, role management, login log and other information;



① 用户管理 user management

这个界面是为二级客户开通账号的，也可以对所开通账号的账号进行管理

This interface is for secondary customers to open accounts, and can also manage the accounts opened.

添加用户流程：

第一步：在我的业务界面添加客户名称

第二步：创建客户角色或使用已经创建好的角色（可根据客户需求对不同的客户开放不同的权限）

第三步：点击添加，选择相应客户名称以及配置好的角色，填写相应用户名和密码后即可完成二级用户的创建。（在编辑二级密码的时候建议统一密码都设置为：999999） 二级密码是用于设置参数，修改参数界面使用的

Add user process:

Step 1: Add the customer name in my business interface

Step 2: Create a customer role or use an already created role (different permissions can be opened to different customers according to customer needs)

Step 3: Click Add, select the corresponding customer name and configured role, fill in the corresponding user name and password to complete the creation of the secondary user. (When editing the secondary password, it is recommended to set the unified password to: 999999) The secondary password is used to set parameters and modify the parameter interface.



② 角色管理 Role management

这个界面创建相应的用户角色，在创建账户或邀请码时选择不同的角色，账户将拥有不同的数据权限功能

This interface creates corresponding user roles. When creating an account or invitation code, select different roles, and the account will have different data permissions and functions.

数据权限功能说明：在点击数据权限时有二级权限，三级权限，终端客户等数据权限。

Data permission function description: When you click on data permission, there are second-level permission, third-level permission, terminal customer and other data permissions.

The screenshot shows a web form for role management. At the top, there is a text input field labeled '* Name'. Below it, a dropdown menu labeled '* Data Permission' is open, showing three options: 'Level2 permissions', 'Level3 permissions', and 'End customers'. To the left of the dropdown, the text 'Menu Permission' is visible. Below the dropdown, there are three checkboxes with labels: 'Business', 'Invitation Management', and 'system management'.

二级权限：可以查看到属于自己的设备以及下级客户的设备

三级权限：只能查看到属于自己的设备，不能看到下级客户的设备数据

终端用户：只能查看到自己的设备

角色创建流程：

第一步：进入角色管理界面，点击添加即可进入角色配置界面。

第二步：输入需要创建的角色名称

第三步：选择角色的数据权限

第四步：勾选相应功能配置，可以选择需要功能为下一级用户开放，具有灵活的功能选配

Second level permissions: can view your own devices and devices of lower-level customers

Third level permissions: can only view your own devices, cannot see the device data of lower-level customers

End users: can only view their own devices

Role creation process:

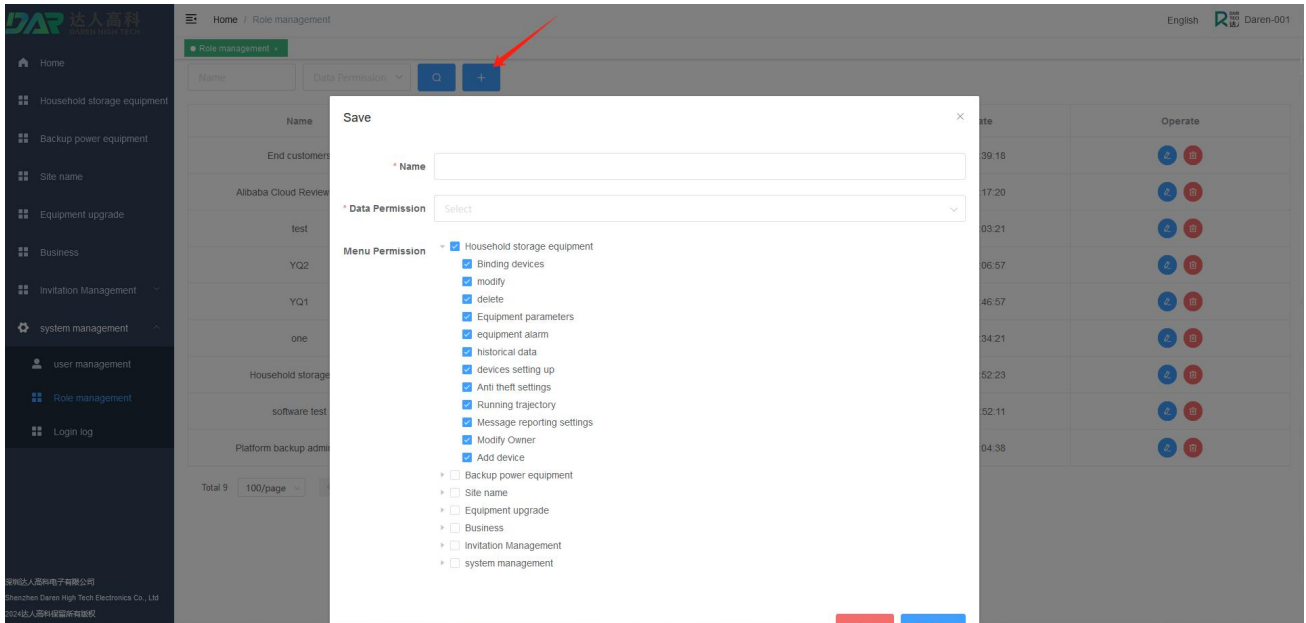
Step 1: Enter the role management interface, click Add to enter the role configuration interface.

Step 2: Enter the role name to be created

Step 3: Select the data permissions of the role



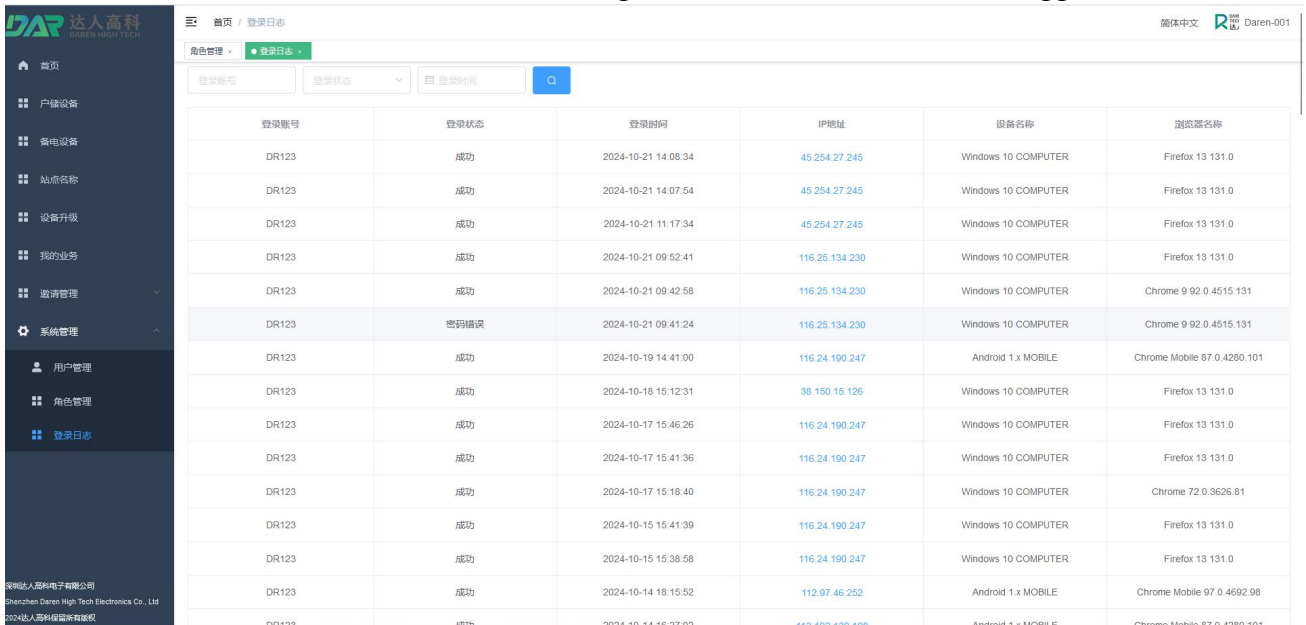
Step 4: Check the corresponding function configuration, you can choose the required function to be open to the next level of users, with flexible function selection



③ 登录日志 Login log

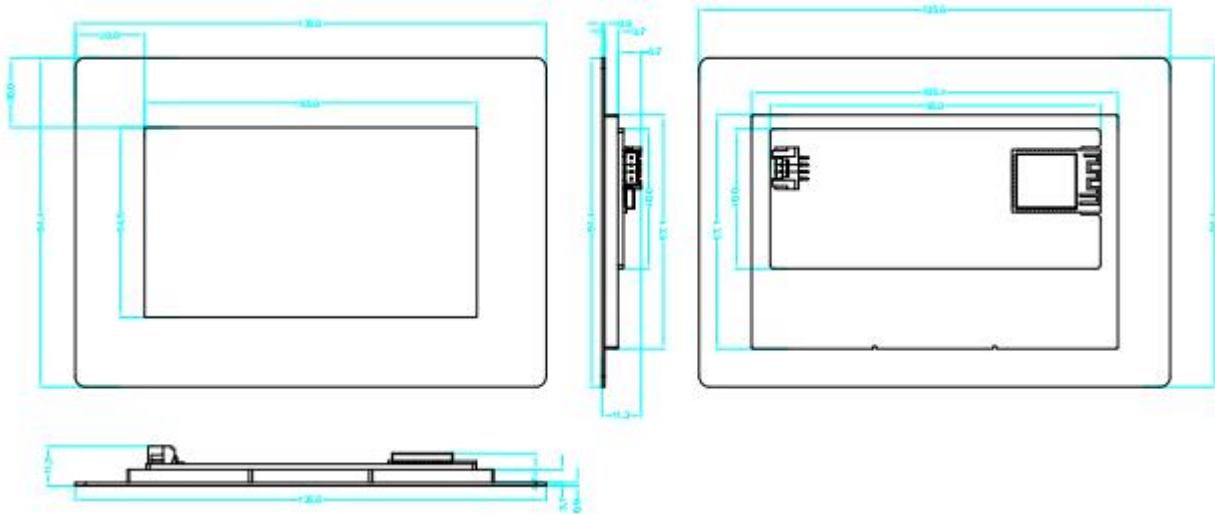
可以查看到该账号登录的设备 IP 及账号登录信息等

You can view the device IP and account login information of the account logged in.



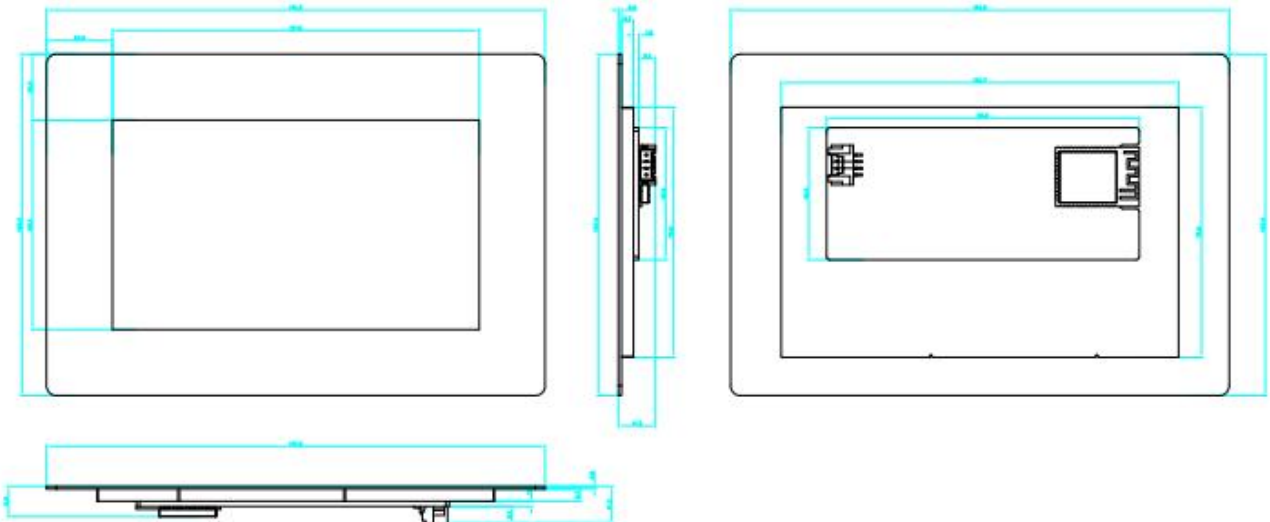
6、尺寸图 Size chart

6.1 4.3英寸触摸屏结构图



图片尺寸仅供参考，实际已实物为准。

6.2 5英寸触摸屏结构图



图片尺寸仅供参考，实际已实物为准。

7、引脚定义 pin definition



引脚	定义
1	TX
2	RX
3	GND
4	13V

8、应用范围 Scope of application

本产品适用于BMS储能产品、智能家居等

This product is suitable for BMS energy storage products, smart home, etc

工作温湿度范围（Operating temperature and humidity range）：-10℃~+60℃，≤85%RH

储存温湿度范围（Storage temperature and humidity range）：-10℃~+65℃，≤85%RH



9、触摸屏使用注意事项 Touch screen film use precautions

- 1、触摸屏膜面为触摸面，即产品正面;玻璃面为非触摸面，即产品背面。
- 2、触摸屏部分为玻璃制品，玻璃边角较锋利，装配时请带手套/指套作业。
- 3、触摸屏部分为玻璃易碎品，装配时不要对触摸屏施加大力冲击。
- 4、避免直接取引线拿起触摸屏，避免对引出线部位有拉扯动作。
- 5、引出线 PCB 板部位不能进行弯折动作。
- 6、引出线任何部位不允许有对折现象。
- 7、引出线在装配时，须水平插入，不可在 PCB 板根部对折插入。
- 8、取放产品时需单片操作，轻拿轻放，避免产品互相碰撞而划伤产品表面。
- 9、清洁产品表面时，请用柔软性布料(鹿皮)蘸石油醚擦拭。
- 10、不可使用带腐蚀性的有机溶剂擦拭触摸屏膜表面。如工业酒精等。
- 11、勿堆放触摸屏。

1. The film surface of the touch screen is the touch surface, that is, the front of the product; The glass surface is the non-touch surface, that is, the back of the product.

2. the touch screen part is glass products, the glass corners are sharp, please wear gloves/finger sets when assembling.

3. the touch screen part is fragile glass, do not exert strong impact on the touch screen when assembling.

4. Avoid taking the lead directly. Pick up the touch screen and avoid pulling the lead part.

5. The PCB board part of the lead line cannot be bent.

6. any part of the lead line is not allowed to fold in half.

7. the lead line in the assembly, must be inserted horizontally, can not be folded in half at the PCB root inserted.

8. when taking and placing the product, it is necessary to operate a single piece, gently handle it, and avoid scratching the surface of the product when the products collide with each other.

9. When cleaning the surface of the product, please wipe it with a soft cloth (deer skin) dipped in petroleum ether.

10. Do not use corrosive organic solvents to wipe the surface of the touch screen film. Such as industrial alcohol.

11. Do not stack reticulum touch screens.