

# **YIY APP**

## **User manual**

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# 1 产品简介Product Introduction

## 1.1 产品名称Name

储能分体系统、储能一体机系统移动端应用（APP）

DIY system and ALL-IN-ONE system(ESS) APP

## 1.2 产品背景Background

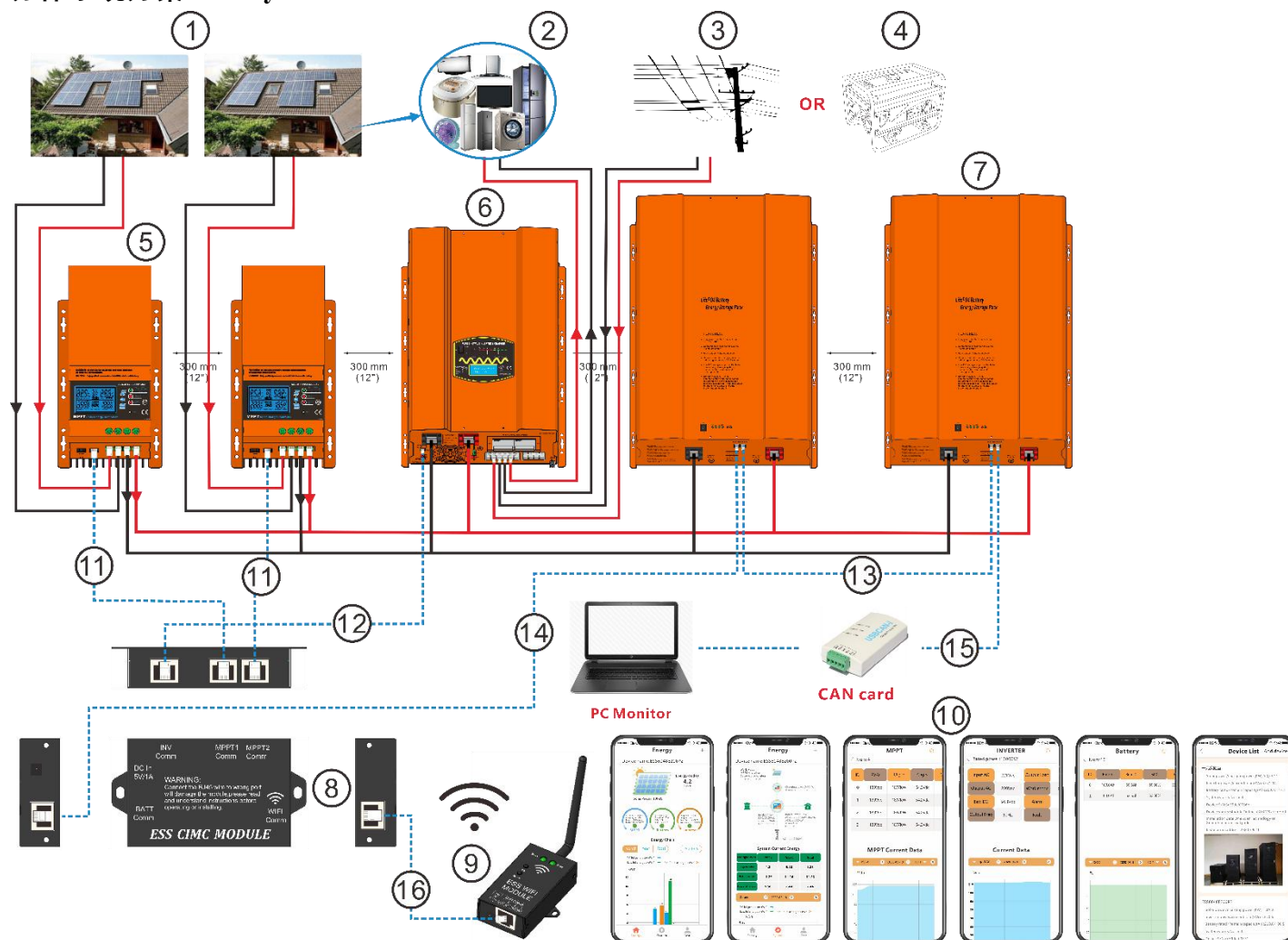
通过云端技术，实现能源系统的智能化，通过远程查看当前系统的运行状态、系统的历史记录及报警状态

Through Cloud technology, the intelligent energy system can be realized, and the current system operation status, historical record and alarm status can be viewed remotely

## 1.3 产品系统图System diagram

### 1.3.1 分体系统展示图 DIY system display drawing

分体系统方案 DIY system scheme 1



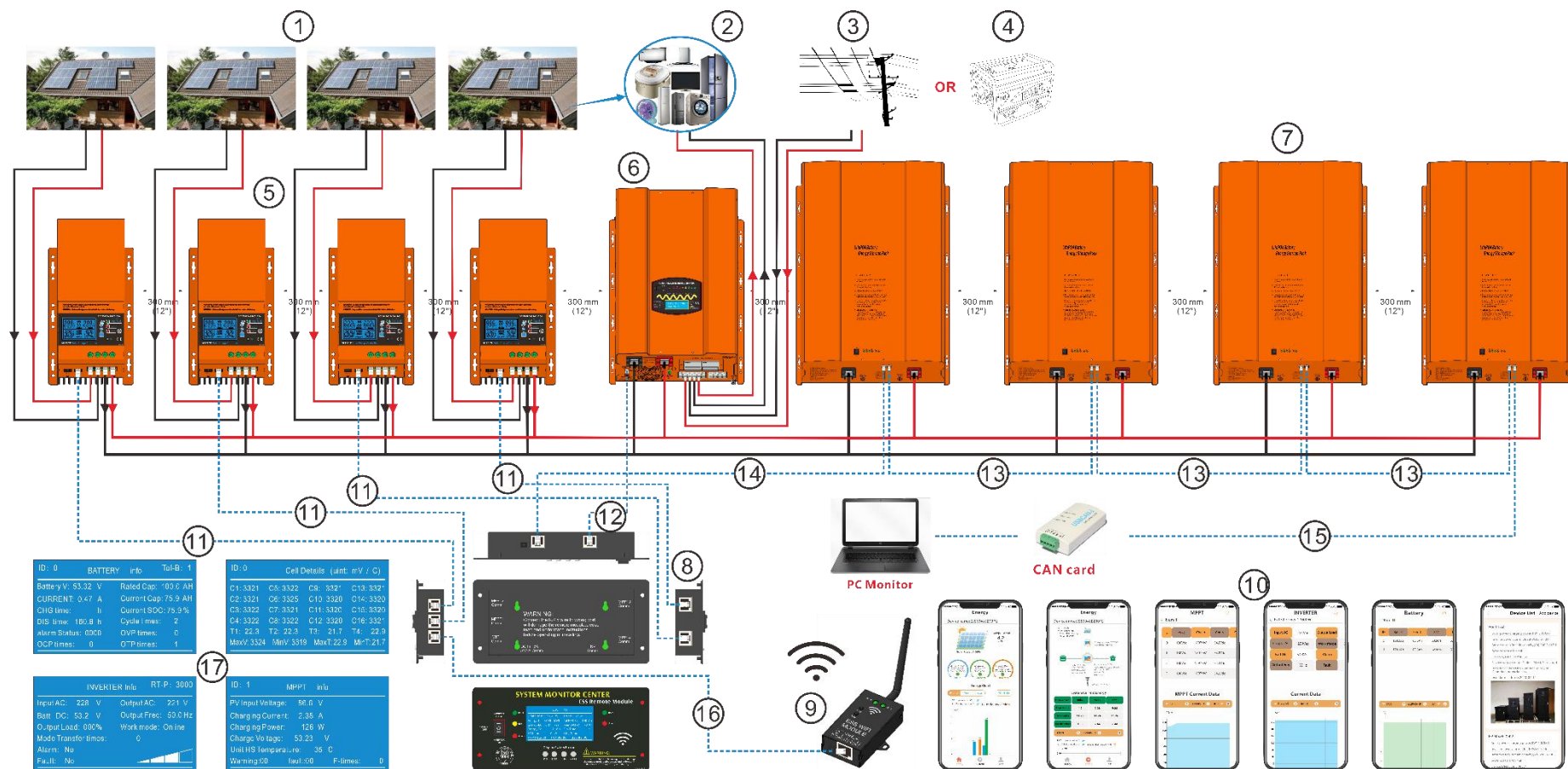
系统配置 System configuration:

Solar controller (2) +Inverter+Lithium battery pack(10MAX)+CIMC module+WIFI module

- ① 太阳能板 Solar panel
- ② AC 负载 AC load
- ③ 电网 Grid
- ④ 发电机 Generator
- ⑤ MPPT solar charger controller
- ⑥ 逆变器 Inverter
- ⑦ 锂电池包 Lithium battery pack
- ⑧ CIMC 中集模块 CIMC module
- ⑨ WIFI 模块 WIFI module
- ⑩ APP Interface
- ⑪ Cable for MPPT to CIMC module
- ⑫ Cable for Inverter to CIMC module
- ⑬ Cables for battery parallel connection
- ⑭ Cable for battery pack to CIMC module
- ⑮ Battery pack /CAN cable (PC)
- ⑯ Cable for CIMC module to WIFI module

## 分体系统方案 DIY system scheme 2

System configuration: Solar controller (4) +Inverter+Lithium battery pack(10MAX)+LCD module+WIFI module



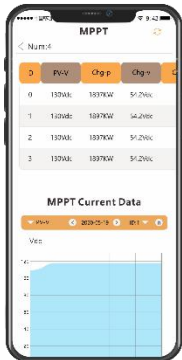
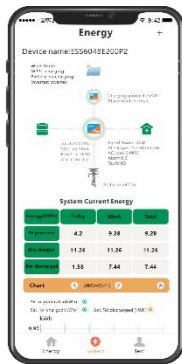
① Solar panel    ② AC load    ③ Grid    ④ Generator    ⑤ MPPT solar charger controller    ⑥ Inverter

⑦ Lithium battery pack    ⑧ LCD module    ⑨ WIFI module    ⑩ APP display interface

⑪ Cable for MPPT to LCD module    ⑫ Cable for inverter to LCD module    ⑬ Cables for battery parallel connection

⑭ Cable for battery pack to CIMC module      ⑮ Battery pack /CAN cable (PC)    ⑯ Cable for CIMC module to WIFI module

### **1.3.2 一体机系统图 ALL-IN-ONE system(ESS) display drawing**

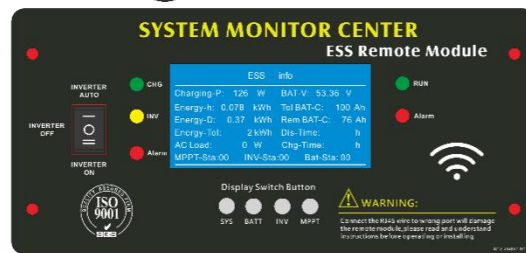


⑨



⑥

⑦



⑩

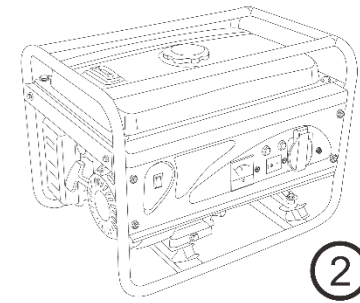
ID: 0	BATTERY	info	Tol-B: 1	ID: 0	Cell Details (unit: mV / C)
Battery V: 53.32 V	Rated Cap: 100.0 AH			C1: 3321 C5: 3322 C9: 3321 C13: 3321	
CURRENT: 0.47 A	Current Cap: 75.9 AH			C2: 3321 C6: 3325 C10: 3320 C14: 3320	
CHG time: h	Current SOC: 75.9 %			C3: 3322 C7: 3321 C11: 3320 C15: 3320	
Dis time: 160.8 h	Cycle times: 2			C4: 3322 C8: 3322 C12: 3320 C16: 3321	
alarm Status: 0000	OVP times: 0			T1: 22.3 T2: 22.3 T3: 21.7 T4: 22.9	
OCP times: 0	OTP times: 1			MaxV: 3324 MinV: 3319 MaxT: 22.9 MinT: 21.7	

INVERTER Info	RT-P: 3000	ID: 1	MPPT	info
Input AC: 228 V	Output AC: 221 V			PV Input Voltage: 86.6 V
Batt DC: 53.2 V	Output Freq: 50.0 Hz			Charging Current: 2.38 A
Output Load: 000%	Work mode: Online			Charging Power: 126 W
Mode Transfer times: 0				Charge Voltage: 53.23 V
Alarm: No				Unit HS Temperature: 35 C
Fault: No				Warning: 00 fault: 00 F-times: 0

⑧



①



②

OR



③



④



⑤

System configuration: ALL-IN-ONE system(ESS)+WIFI module



### 1.3.3 系统说明 System description

WIFI 模块通过手机 APP 进行配网连接到本地网络（无线热点），配网成功，WIFI 模块自动连接到云服务器，APP 通过添加设备（WIFI 模块 MAC 地址）将系统连接到服务器，系统每隔十分钟将运行数据通过 WIFI 模块上传到服务器，手机 APP 收取服务器上关于系统的数据并展示

WiFi module connects the distribution network to the local network (wireless hot spot) through mobile app. If the distribution network connection is finished, WiFi module is automatically connected to the Cloud server. App connects the system to the server by adding devices (WiFi module MAC address). The system uploads the running data to the server through WiFi module every 10 minutes. The mobile app receives the data about the system on the server and show it on the interface.

WIFI module picture and instruction



**Server LED:** Network status indicator

**1S Flash:** Network abnormal, Server connection failure

**0.3S Flash:** Distribution network state

**Light on:** Network normal, Server connection success

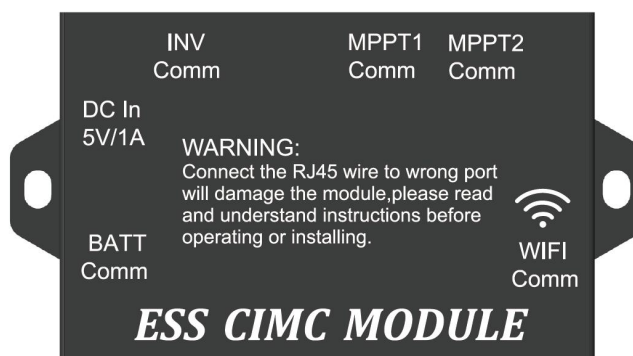
**Data LED:** Data is transmission, flash once every 10 minutes

**Link button:** Distribution network button

, Press and hold to enter the distribution network state

**Reset button:** module restart button

CIMC module and wiring instruction





MPPT1&2 Comm: RJ45 blue 1.5M 8P network cable is adopted to connect with MPPT solar charger Remote Comm

INV Comm: RJ45 blue 1M 8P network cable is adopted to connect with inverter LCD Remote Port

BATT Comm: RJ11 blue 4M 8P network cable is adopted to connect with battery pack RJ45 Comm

WIFI Comm: RJ45 blue 10M 8P network cable is adopted with WIFI module RJ45 Comm

DC In5V/1A: Backup 5VDC power interface

#### LCD module、Wiring and display instruction



MPPT1&2 Comm: RJ45 blue 1.5M 8P network cable is adopted to connect with MPPT solar charger Remote Comm

INV Comm: RJ45 blue 1M 8P network cable is adopted to connect with inverter LCD Remote Port

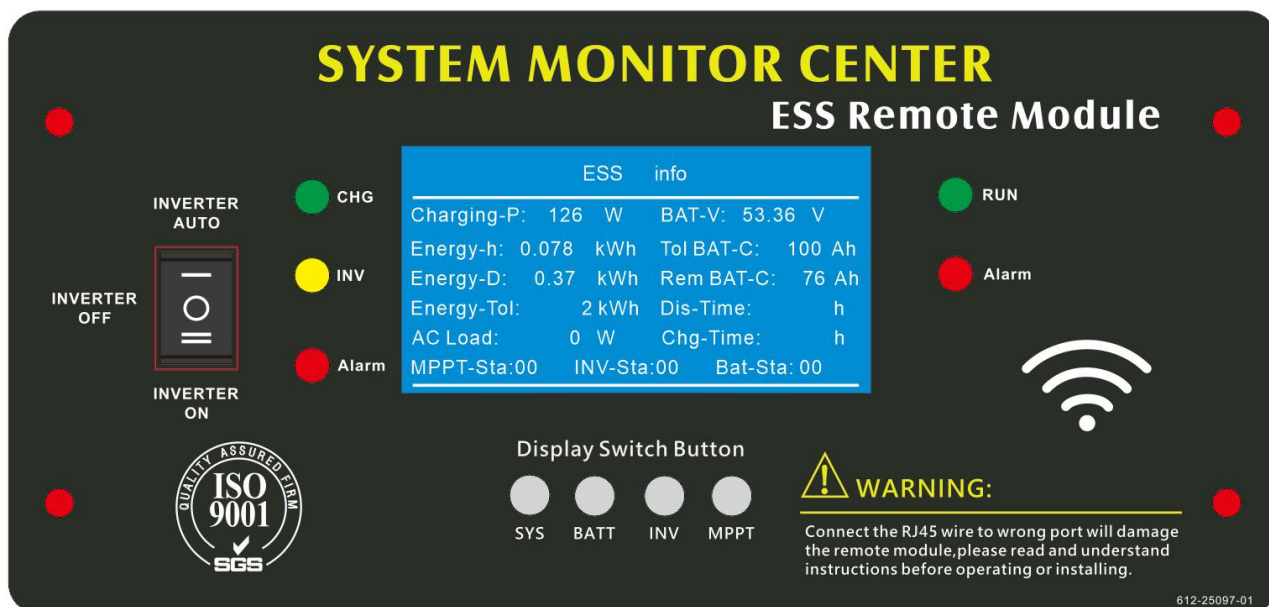
BATT Comm: RJ11 blue 4M 8P network cable is adopted to connect with battery pack RJ45 Comm

WIFI Comm: RJ45 blue 10M 8P network cable is adopted with WIFI module RJ45 Comm

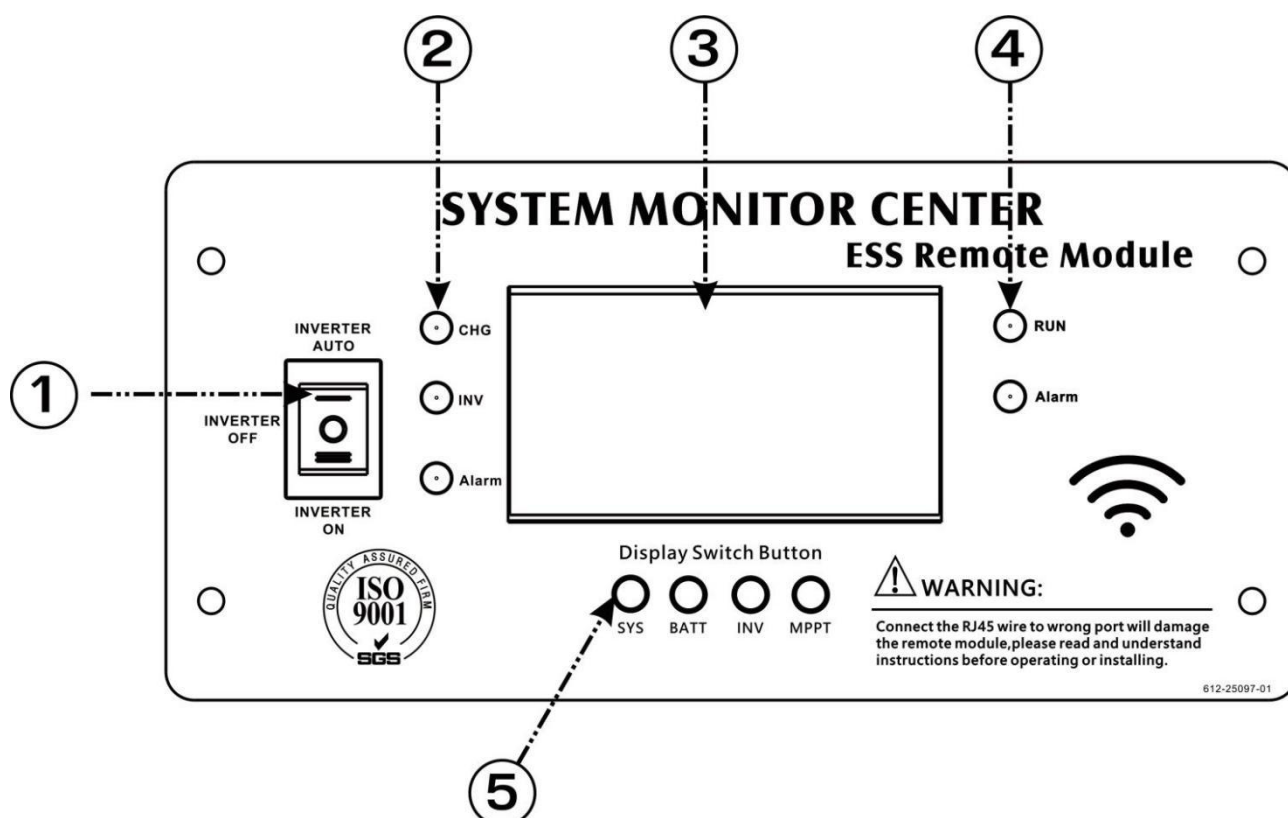
DC In5V/1A: Backup 5VDC power interface

### 1.4 LCD display module introduction

The LCD display system working information on the front of cabinet

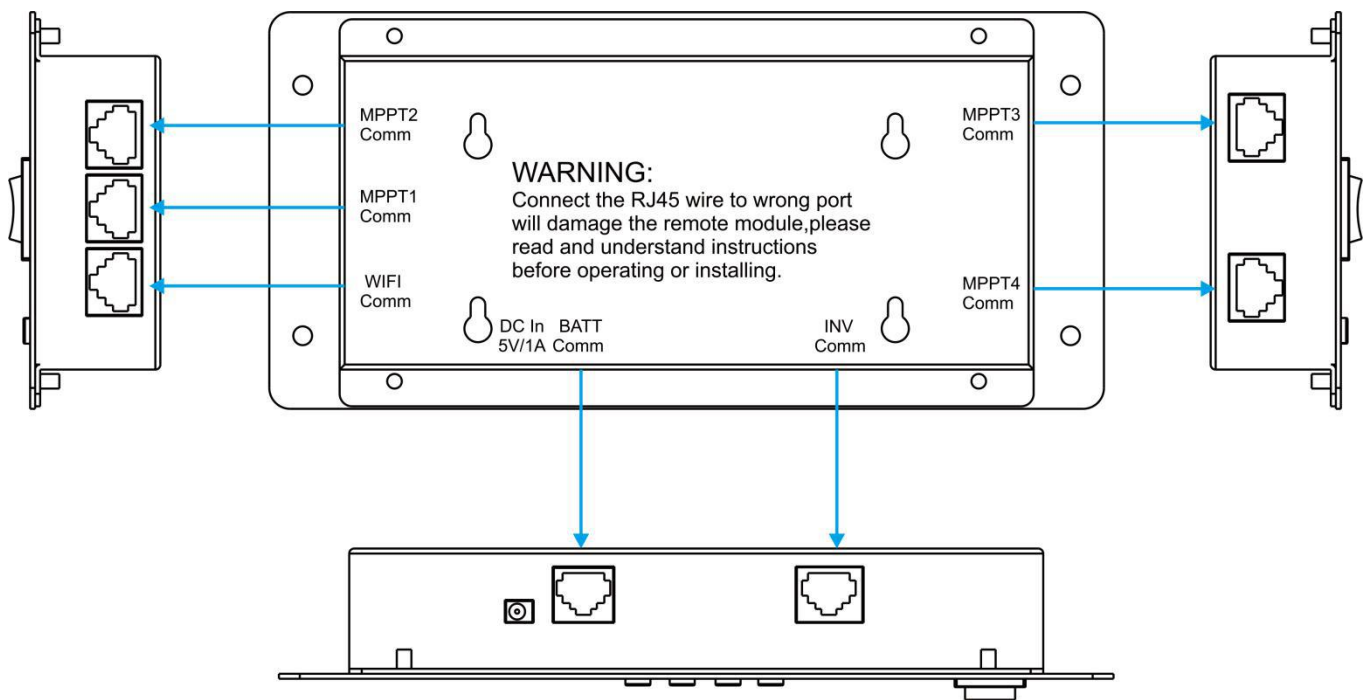


### 1.4.1 Function description



Item	Name	Description
1	INV power switch	Power saver auto: inverter work in saver mode
		Inverter OFF: inverter power off
		Inverter ON: inverter work in normal mode

2	Inverter indicator LED	CHG: inverter working in battery charge mode
		INV: inverter working in battery discharge mode
		Alarm: inverter warning or fault
3	LCD Screen	Show the system working information
4	Battery indicator LED	RUN: battery working normal
		Alarm: battery warning or fault
		Display ON/OFF
5	Button SYS	Press button, LCD will show ESS info directly
	Button BATT	Press button, LCD will show BATT info directly
	Button INV	Press button, LCD will show INV info directly
	Button MPPT	Press button, LCD will show MPPT info directly



Note:

1. The connector of Inverter port is RJ45 type, connector of Battery is RJ11 type, never insert the wrong position or damage will happen and invalid warranty.
2. DISPLAY ON/OFF: touch any button will lighting the LCD, keep press the button, the current screen will hold for checking current module information

## 1.4.2 Display introduction

### ESS INFO display

ESS info		
Charging-P:	126 W	BAT-V: 53.36 V
Energy-h:	0.078 kWh	Tol BAT-C: 100 Ah
Energy-D:	0.37 kWh	Rem BAT-C: 76 Ah
Energy-Tol:	2 kWh	Dis-Time: h
AC Load:	0 W	Chg-Time: h
MPPT-Sta:00	INV-Sta:00	Bat-Sta: 00

Charging-Power	MPPT charging power total
Energy-hour	Solar generator energy in current hour
Energy-Day	Solar generator energy today
Energy-Total	Solar generator energy total
AC Load	Current AC loads power inverter take
BAT-Voltage	System battery voltage
Total Bat capacity	System rated battery capacity in total
Remain Bat capacity	System remain battery capacity in total
Discharge-Time	System estimated time to discharge battery empty in current condition
Charge- Time	System estimated time to charging battery full in current condition
MPPT-Status	All MPPT working status in system 00: normal 01: warning occur 02: fault occur
Inverter-Status	Inverter working status in system 00: normal 01: warning occur 02: fault occur
Battery-Status	All Battery working status in system 00: normal 01: warning occur 02: fault occur

## BATTERY PACK display

ID: 0	BATTERY info	Tol-B: 1
Battery V: 53.32 V	Rated Cap: 100.0 AH	
CURRENT: 0.47 A	Current Cap: 75.9 AH	
CHG time: h	Current SOC: 75.9 %	
DIS time: 160.8 h	Cycle times: 2	
alarm Status: 0000	OVP times: 0	
OCP times: 0	OTP times: 1	

**first battery info window**

Total-battery pack	Total battery packs in system
Battery V:	Current ID battery voltage
Rated Cap:	Battery rated capacity of current ID
Current I:	Positive means charge, Negative means discharge
Current Cap:	Remain capacity of current ID battery
CHG time:	Estimated time to charging battery full
Current SOC:	Remain SOC of current ID battery
DIS time:	Estimated time to discharge battery empty
Cycle times:	Battery cycle times of current ID
ID:	Current battery identity number
Alarm status:	Ref the battery pack alarm code table
OVP times	Number of battery voltage alarm times
OCP times	Number of battery current alarm times
OTP times	Number of battery temperature alarm times

**Battery pack alarm code table**

0000	normal
0100	Cell Over-voltage Warning
0200	Cell Over-voltage Protection
0400	Cell Low-voltage Warning

0800	Cell Low-voltage Protection
0010	Cell Over-temp Warning
0020	Cell Over-temp Protection
0040	Cell Low-temp Warning
0080	Cell Low-temp Protection
0001	Discharge Over-current Warning
0002	Discharge Over-current Protection
0004	Charge Over-current Warning
0008	Charge Over-current Protection

## ID: 0 Cell Details(uint: mV / °C)

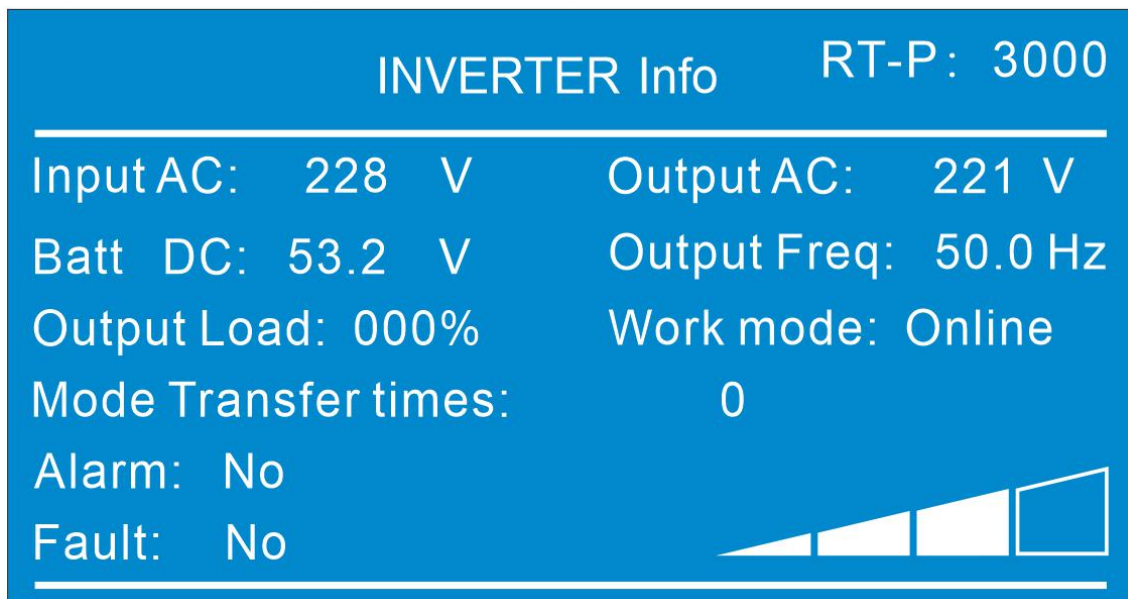
C1: 3314 C5: 3316 C9: 3311 C13: 3317  
 C2: 3318 C6: 3320 C10: 3311 C14: 3314  
 C3: 3318 C7: 3313 C11: 3312 C15: 3310  
 C4: 3321 C8: 3314 C12: 3311 C16: 3324  
 T1: 30.8 T2: 29.7 T3: 29.2 T4: 28.9  
 MaxV: 3324 MinV: 3310 MaxT: 30.8 MinT: 28.9

### second battery info window

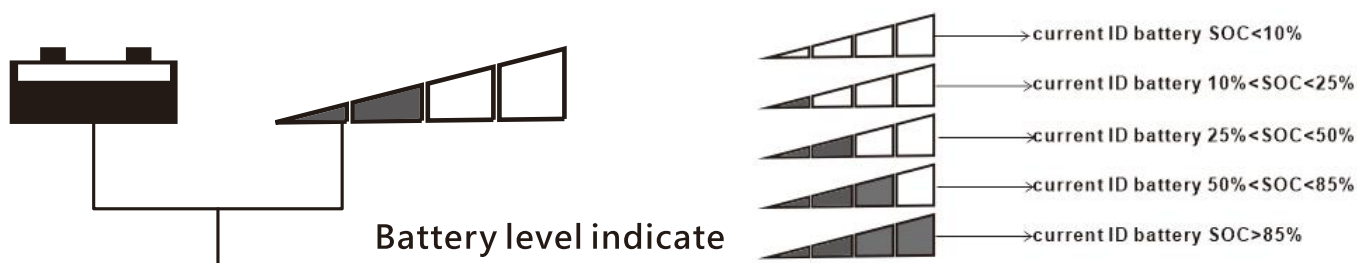
ID	Current battery identity number
C1——C16	Internal cells voltage
T1——T4	Internal temperature detecting value
Max V	Maximum cell voltage
Min V	Minimum cell voltage
Max T	Maximum internal temperature detecting value
Min T	Minimum internal temperature detecting value



## INVERTER INFO display



Rated-Power	Inverter rated power
Input AC	Current utility or generator AC voltage
Output AC	Inverter output AC voltage
Batt DC	Current battery voltage
Output Freq	Inverter output AC frequency
Output Load	Current AC loads percentage inverter take
Work mode	Charging or Inverter
Mode Transfer times	Inverter working mode transfer times
Alarm	Ref inverter 3.3.9
Fault	Ref inverter 3.3.9





## MPPT INFO display

ID: 1	MPPT	info
<hr/>		
PV Input Voltage:	75.3	V
Charging Current:	2.38	A
Charging Power:	126	W
Charge Voltage:	53.29	V
Unit HS Temperature:	35	C
Warning:00	fault:00	F-times: 0
<hr/>		

ID	Current MPPT identity number
PV Input Voltage	Current MPPT PV input voltage
Charging Current	Current MPPT charging current
Charging Power	Current MPPT charging power
Charge Voltage	Current MPPT charging voltage
Unit HS Temperature	Current MPPT internal temperature
Warning code	Ref MPPT 3.1.3
Fault code	Ref MPPT 3.1.3
Fault times	Current MPPT occurs fault times

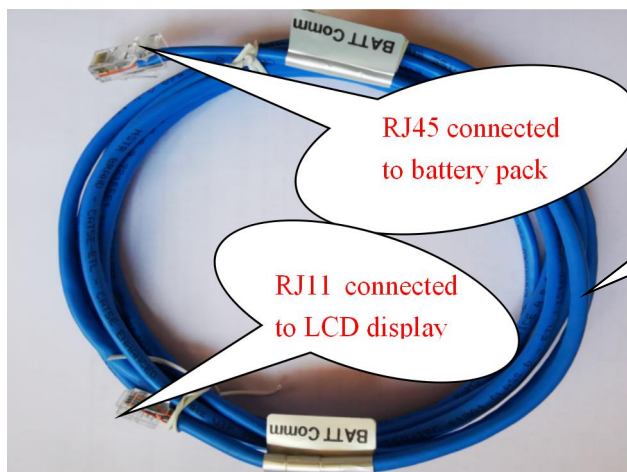
## 连接线图片及说明 Pictures and description for cables



10M cables are used to connect LCD display WIFI port 与 WIFI module, Locate the module on the position with strong WIFI signal by 10M cables, the WiFi module itself needs to be equipped with 5V external power supply to ensure stable signal transmission. When 1.5M cables are used, WIFI module is installed on the cabinet, extra power supply is not required.



1.0m cables between MPPT port of LCD screen and communication port of solar controller, 4pcs



RJ45 connected to battery pack

RJ11 connected to LCD display

4M cables are used between LCD display/battery RJ11 port and battery pack R S 4 8 5, 1PCS

## 外置 5V 电源模块及说明 External 5V power supply module and description



WIFI module 5V external supply  
When the module is placed in a strong WiFi signal position with 10m cable, the WiFi module itself needs to be equipped with 5V external power supply to ensure stable signal transmission

## 2 APP Instruction

### 2.1 Download and installation

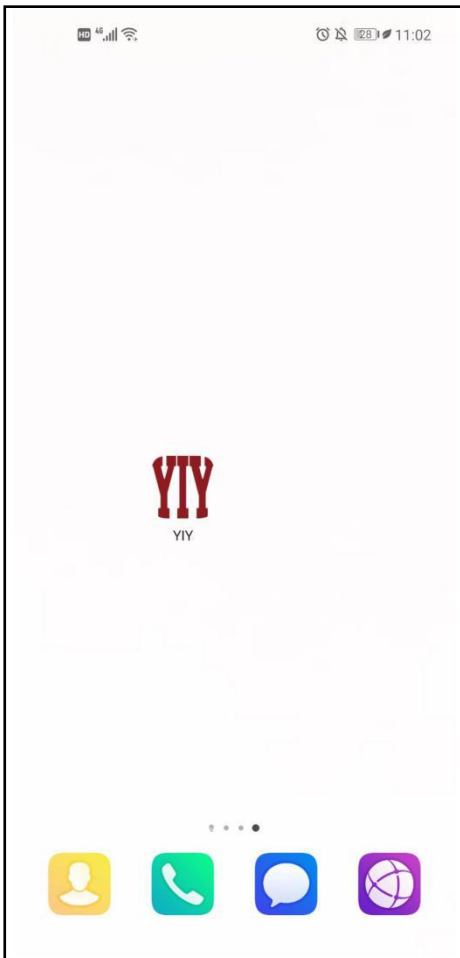
YIY APP can be download and installed through visiting[www.yiyuan.com](http://www.yiyuan.com)

Android phone users can search “YIY” through major android application market to download and install.(Domestic: 腾讯应用宝、华为应用市场 Overseas: GooglePlay)

IOS phone users can search”YIY” through Appstore to download and install.

### 2.2 APP启动运行APP operation

用户在安装完毕后，点击桌面 YIY 启动， 图片 After the installation, click YIY on the desktop to start



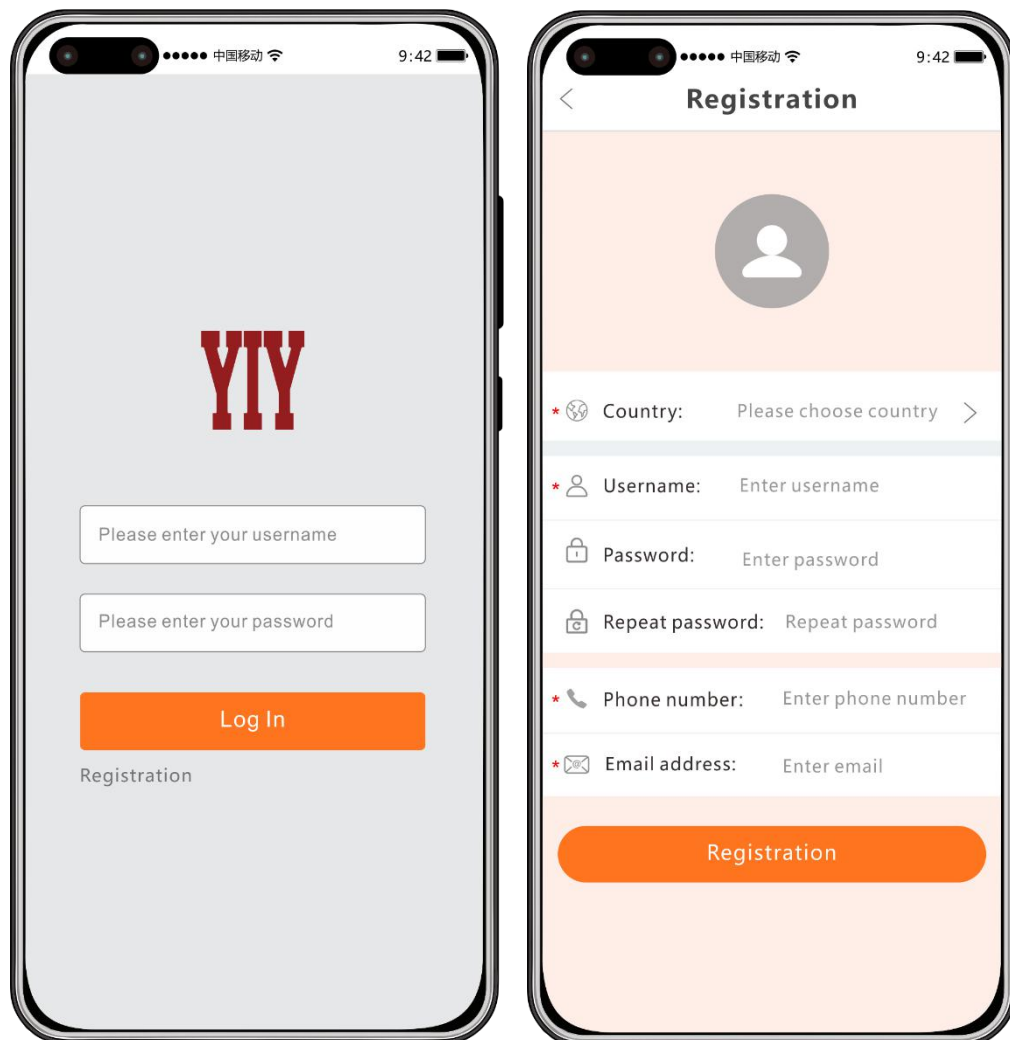
说明：苹果手机支持 IOS7 及以上操作系统； Android 支持 4.0 及以上的操作系统

Mark: Iphone supports IOS 7 and above operating system; Android supports 4.0 and above operating system

## 2.3 用户注册及登录

用户第一次使用的时候，通过以下步骤进行注册： 点击桌面图标——注册——输入相关信息

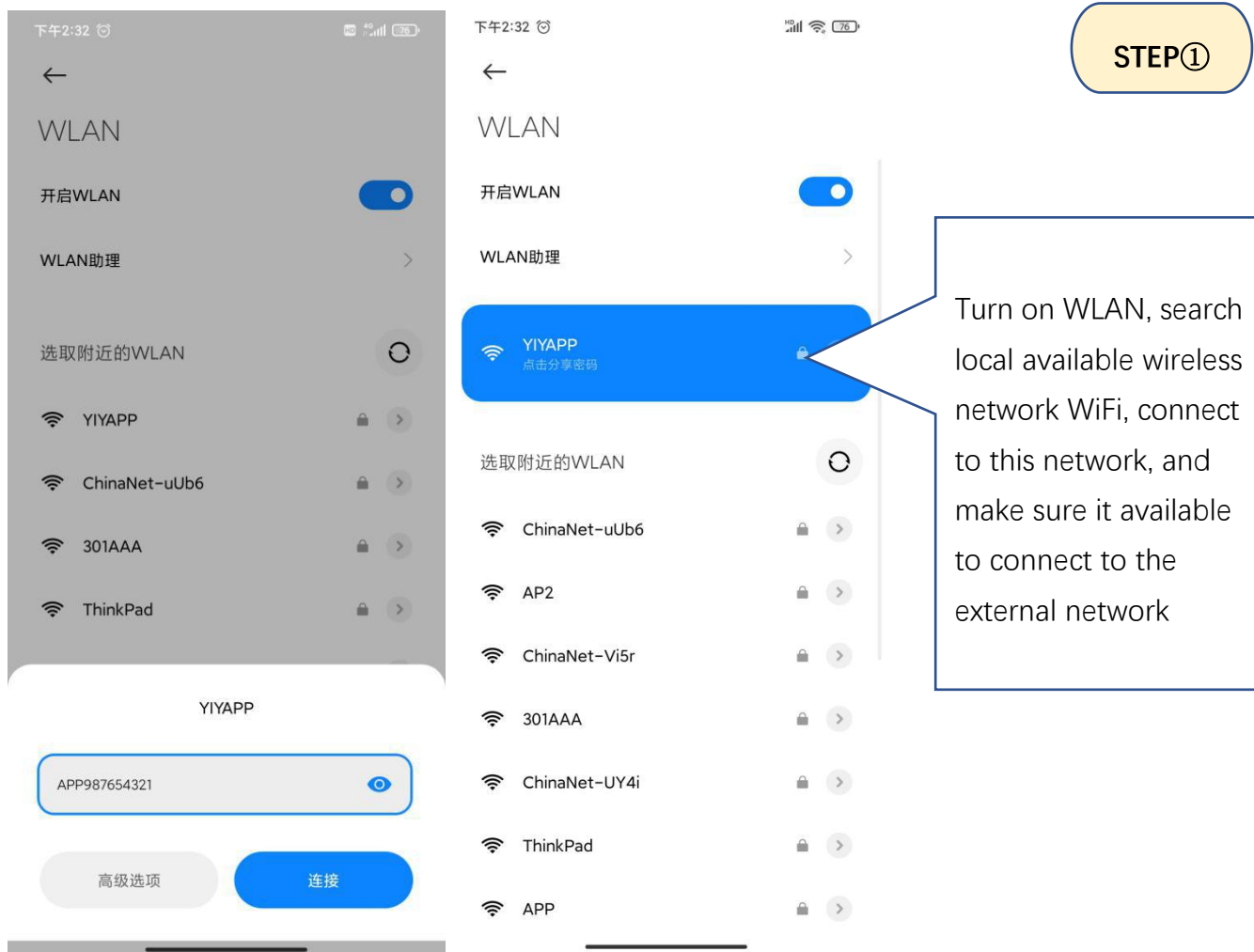
When users use the APP for the first time, register by following steps: Click icon on desktop——Register——enter relevant information



- 1、Register and login in
- 2、 Register:  
According to the information on the page, select the country, enter the user name, password, mobile phone number and email information, etc
- 3、 Submit, register successfully

## 2.4设备配网及注册 Device distribution network and registration

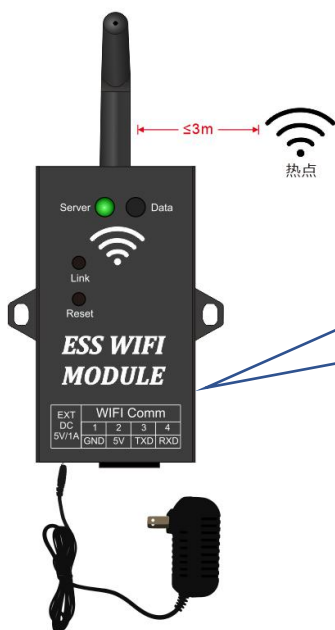
### 2.4.1 手机连接本地 Wi-Fi 网络 Mobile phone connected to local wifi network



## 2.4.2 将 WiFi 模块连接至本地无线网(配网)Connect WiFi module to local WIFI network (distribution network)

(Mark: 由于无线网信号原因, 配网地点最好选择 WiFi 热点半径 3 米以内; 配网成功后可根据 WiFi 信号的强弱选择适当的地点安装 WiFi 模块 Due to the wireless network signal, the best distribution network location is that WiFi hot spot radius should be within 3 meters; after the distribution network is successful, the appropriate location can be selected according to the strength of WiFi signal to install WiFi module)

### STEP ②

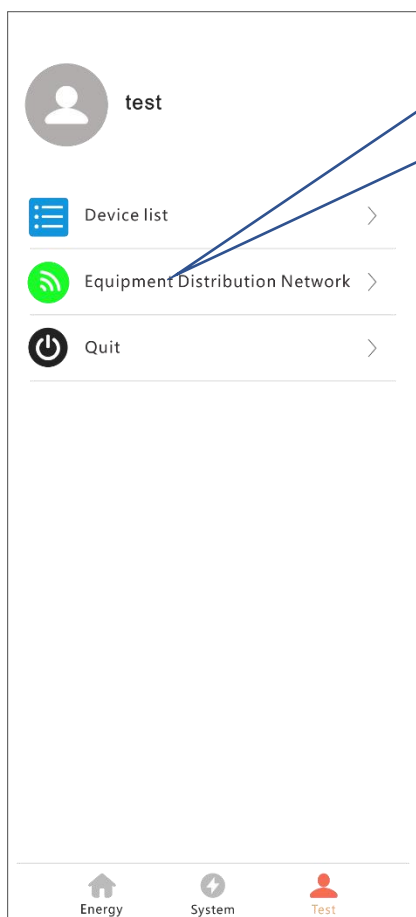
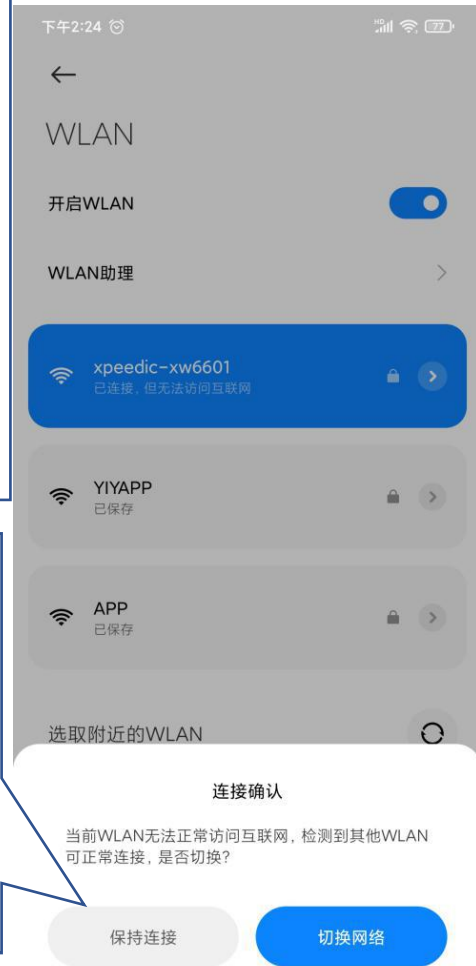


- 1、Use external power to provide electricity to wifi module to make it work normally. (After distribution network is complete, the external power supply is only used as backup power supply)
- 2、Hold "link" on until "server" flash at 0.3 s/time, and release; search "xpeedic-xw6601" network with mobile



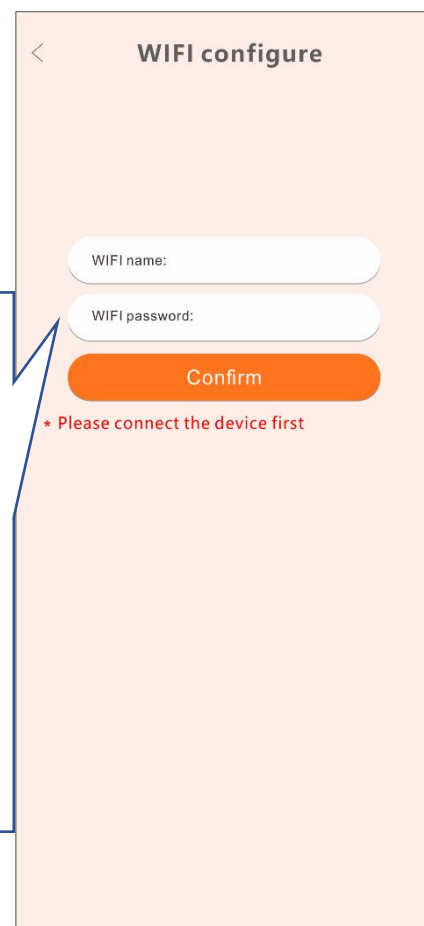
(默认密码: 12345678)  
Search and connect  
"xpeedic-xw6601" network in the WLAN.  
(Default  
password :12345678)

If such network  
selection appears,  
please select "keep  
connected", otherwise  
the distribution network  
will fail.



Back to APP  
homepage,click  
"Mine".click "Equipment  
distribution Network:"

WIFI name: enter local WIFI  
name  
WIFI password: enter WIFI  
password  
Click "Confirm" to make the  
distribution network.



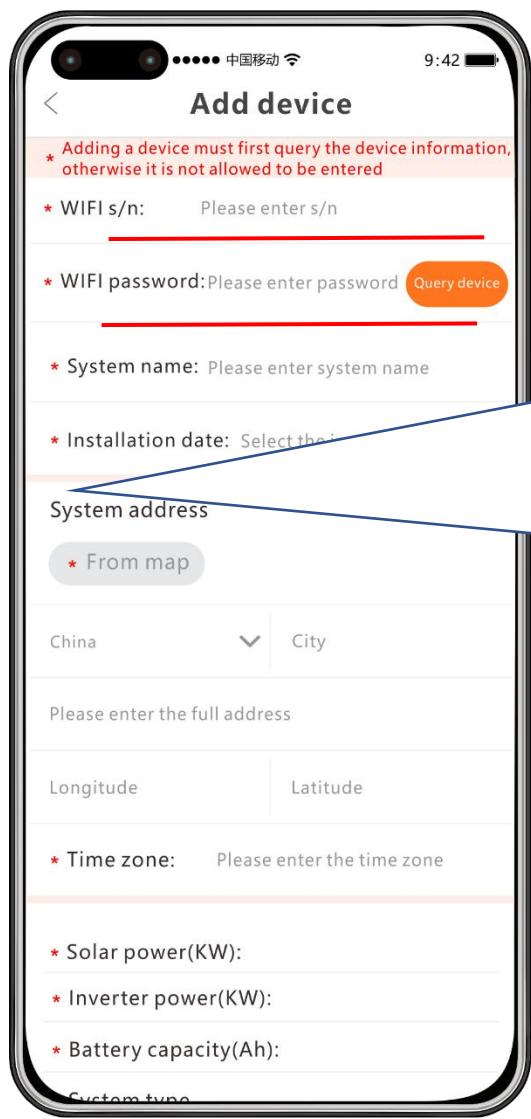




配网界面提示“已发送”，  
WIFI 模块“Server”灯常亮，  
说明 WIFI 模块已成功连  
接到本地 WIFI 网络。

When distribution  
network page shows  
“sent”and the wifi  
module “server” light is  
on, so your Wi-Fi  
module connection is  
complete.

STEP ③



## 2.5 添加设备Add Device

Please enter the APP, and Click “mine” - “device list” - “Add device”

设备序列号：输入 WIFI 模块侧面 MAC 地址号（如：  
8c59dcf00001）；设备密码：输入 MAC 号前 6 位（如：  
8c59dc）； 点击“查询设备”， 录入相关信息后， 点击  
“添加设备”

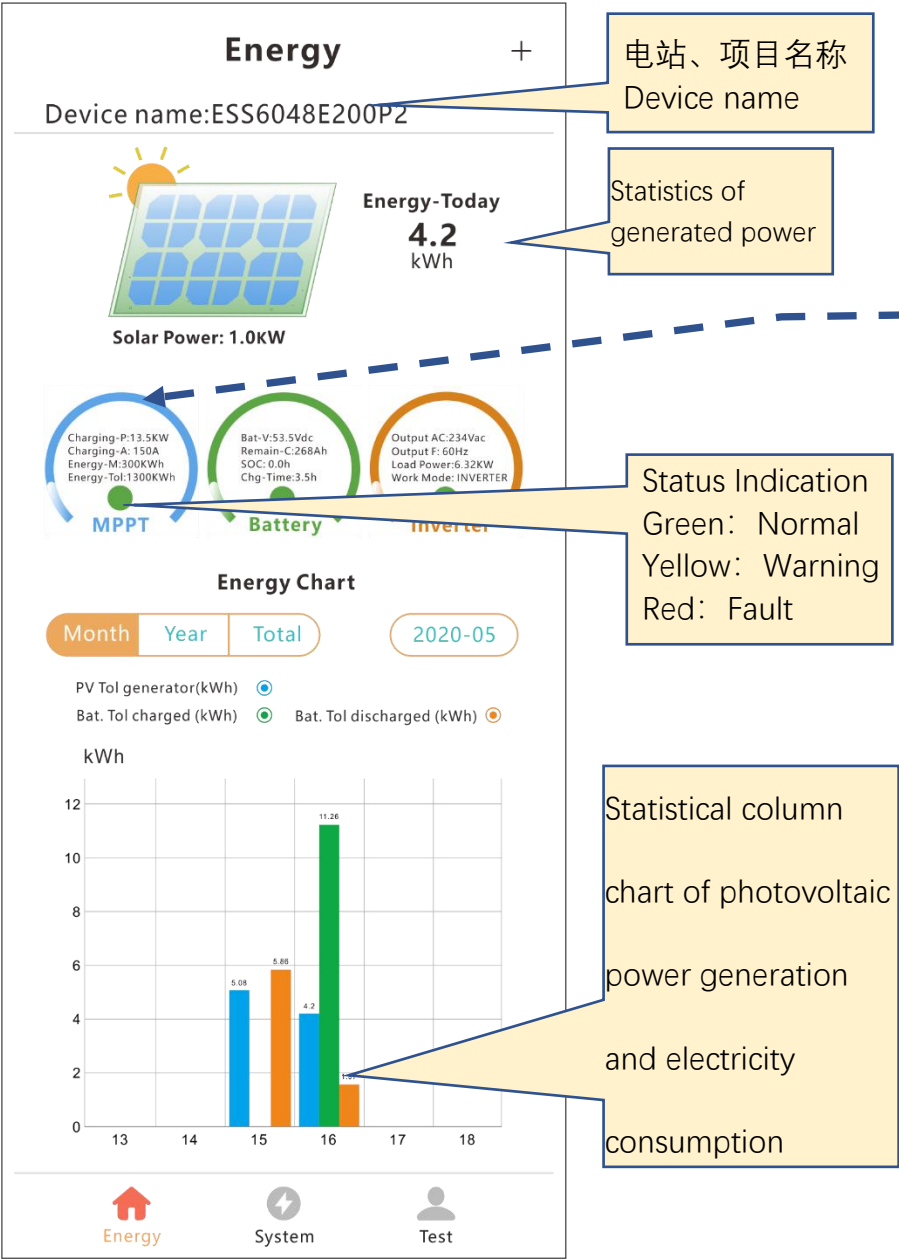
serial number: enter MAC address on the side of  
Wi-Fi module (ex:8c59dcf00001)

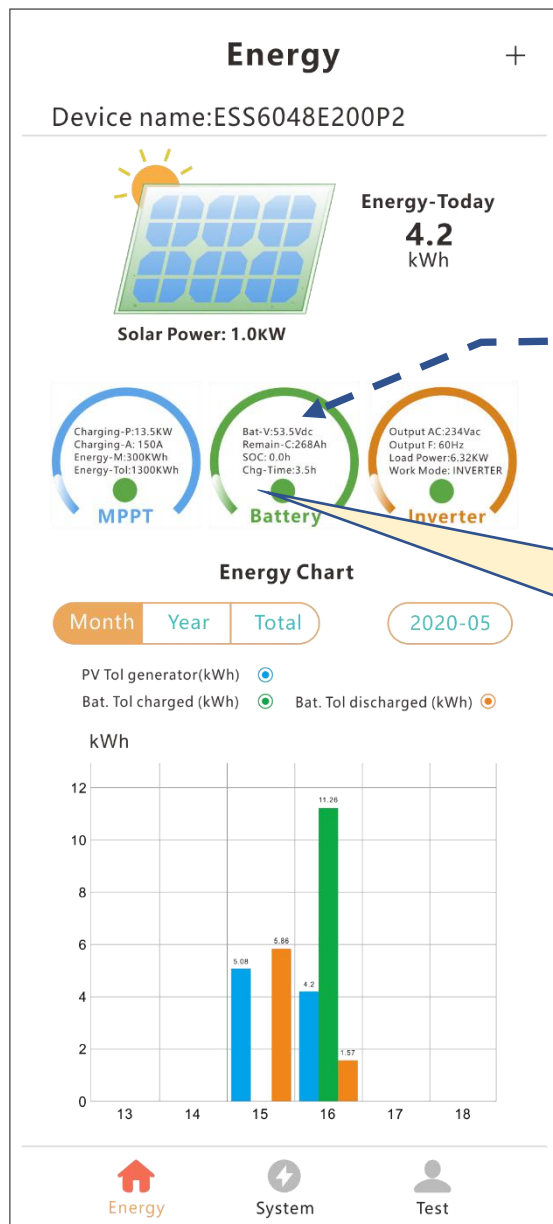
Device password:MAC address top six  
number(ex:8c59dc)

click “query device” and enter relevant information.  
Click“Add Device”



2.6 APP Energy





Click the green area to enter the lithium battery pack page to view the real-time data of up to 10 battery

### Battery

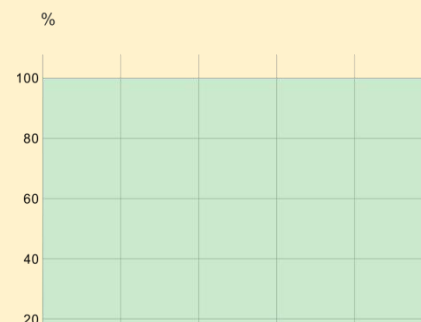
< Num:10

ID	Rate-C	Rem-C	SOC	E
0	100.0Ah	60.5Ah		
	100.0Ah	62.5Ah		

Status Indication  
Green: Normal  
Yellow: Warning  
Red: Fault

Status Indication  
Green: Normal  
Blue: Level one warning  
Yellow: Level two warning  
Red: Fault

SOC < 2020-05-19 > ID:1 h



Click the ID number to enter the lithium battery single pack page, where you can view the real-time data of the current ID number battery pack's temperature, voltage and working status.

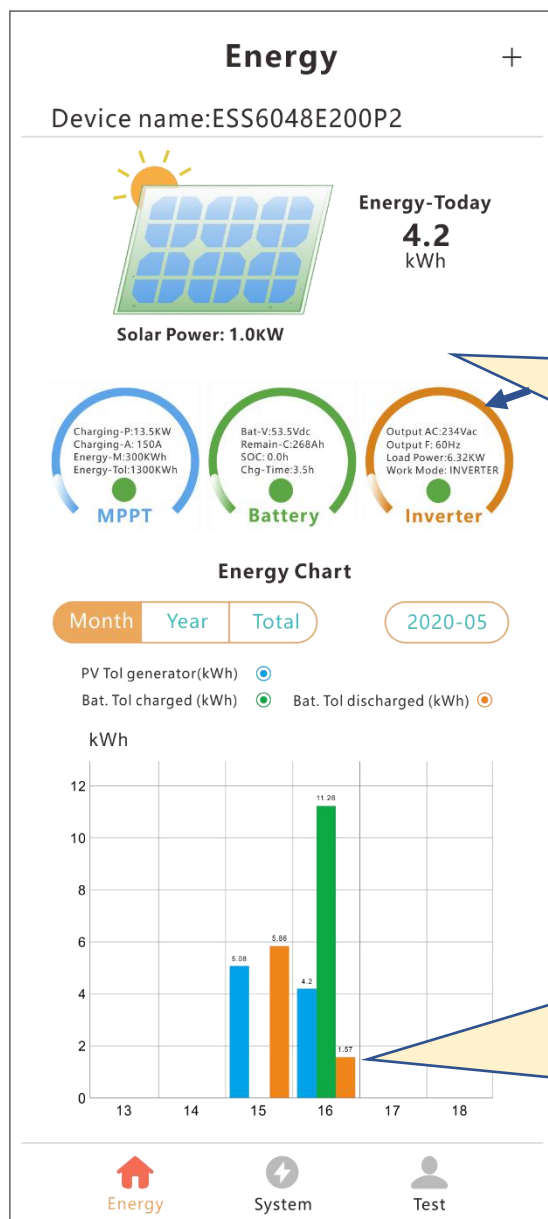
# Battery

< ID:0

ID:0		Status	
Over Charge Current	Over Cell Voltage	Over Temperature	SOC High Alarm
Over Charge Current	Under Cell Voltage	Under Temperature	SOC Low Alarm
Current detect Fault	Cell Voltage Abnormal	Temperature detect Fault	Voltage detect Fault

ID:0

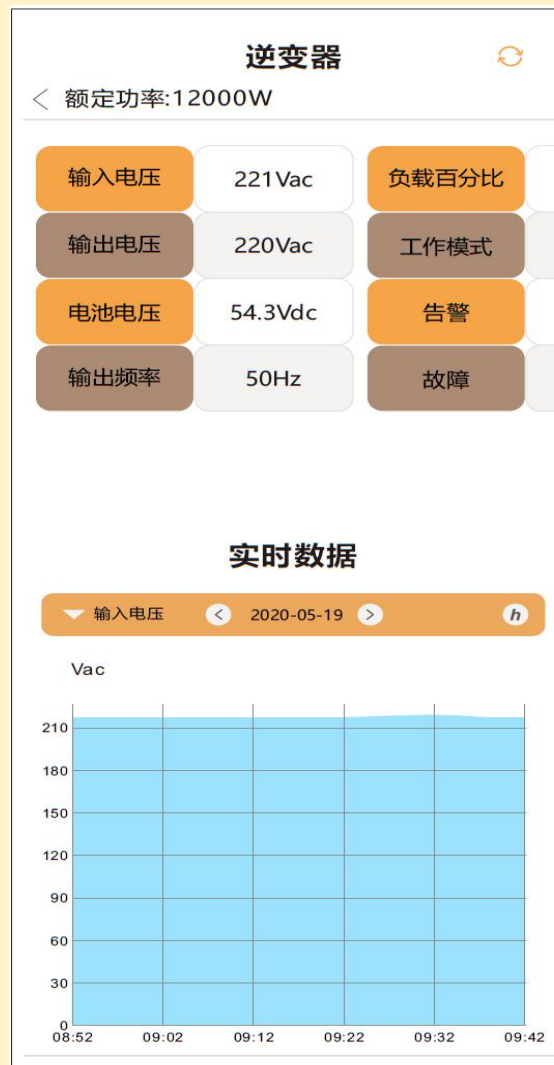
Cell Details			
C1:3314mV	C2:3316mV	C3:3318mV	C4:3321mV
C5:3316mV	C6:3320mV	C7:3313mV	C8:3314mV
C9:3311mV	C10:3311mV	C11:3312mV	C12:3311mV
C13:3317mV	C14:3314mV	C15:3310mV	C16:3324mV
T1:30.8°C	T2:29.7°C	T3:29.2°C	T4:28.9°C
MaxV:3324mV	MinV:3310mV	MaxT:30.8°C	MinT:28.9°C



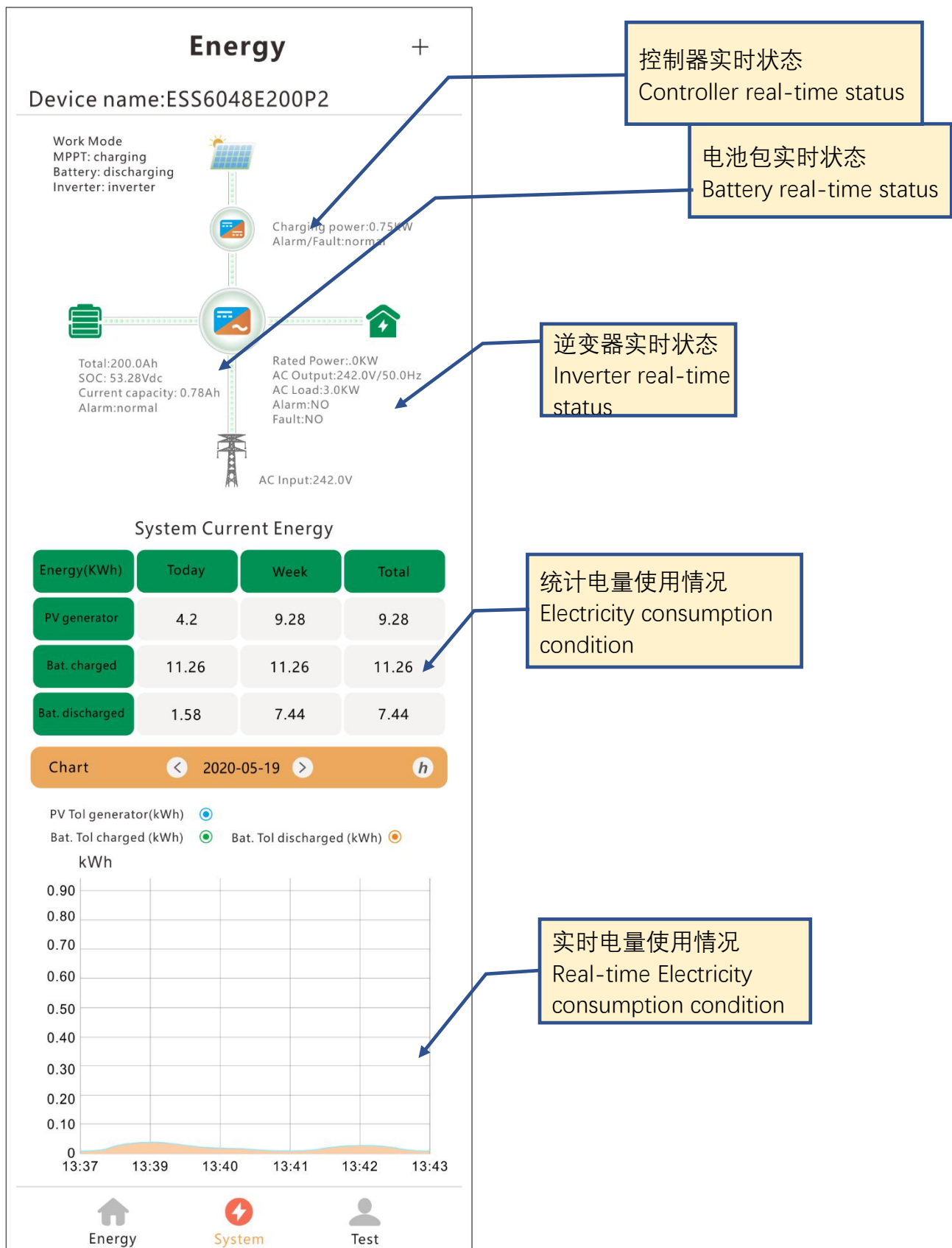
Status Indication  
Green: Normal  
Yellow: Warning  
Red: Fault

Statistical column  
chart of photovoltaic  
power generation  
and electricity  
consumption

Click the orange area to enter the inverter page to  
view the real-time data of the inverter



## 2.7 APP Energy Page



## 2.8 “我的”页面My Page





## 2.9 设备列表Device List

< **Device List** Add device

一元实验室

Solar power/charging power(KW):5.0/0.47

Inverter power/current load(KW):8.0/1.04

Battery rated/Remain capacity(Ah):200.0/147.1


System status:Normal

Device S/N:8c59dcf0056e

Device status:Module Online COMMS are good

Installation date:One Yuan Technology of Guanghao industrial park

Installation address:2020-09-10



ESS6048E200P2

Solar power/charging power(KW):1.0/0.61

Inverter power/current load(KW):6.0/0.6

Battery rated/Remain capacity(Ah):200.0/100.5


System status:Normal

Device S/N:8c59dcf00571

Device status:Module Online COMMS are good

Installation date:Floor 1-2, Caitian Cuncaitian School Complex, Futian district, Shenzhen City, Guangdong Province, China

Installation address:2020-09-10



点击添加新的设备  
Click Add Device

点击查看已添加的设备运行情况  
Click and view added device's operation condition

点击查看已添加的设备运行情况  
Click and view added device's operation condition