

USER MANUAL



EVC11C | EVC11B

SMART EV CHARGER

LAUNCHEurope



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1. Introduction

— This manual introduces the Launch EV smart charger European Standard AC chargers and related products, and gives the detailed description of the installation and use process.

Safety warning:

Please read this manual carefully before installing and using the charger.

Safety warning:

All installations must be operated by qualified professional electrician.

1.1. General

1.1.1 About this manual

- This manual must be provided to all personnel responsible for the installation and use of the charger;
- The installation and commissioning of the charger must be operated by professionals or other qualified personnel undergoing training, and the laws and regulations related to safety must be strictly observed;
- The manufacturer of the charger is not responsible for all damage caused by violation of regulations or failure to operate according to the requirements of this manual;
- Due to product evolution, the charger manufacturer has the right to upgrade the product when necessary;
- All rights reserved. This manual shall not be copied without the written authorization of manufacturer.

1.1.2 About safety

This product adopts the most advanced technology and complies with safety and health regulations.

In case of violation of regulations or failure to follow the requirements of this manual, there may be the following risks:

- Cause harm to the life or body of users or third parties;
- Cause harm to product and other major assets of operators;
- The product is damaged and there is a risk that it cannot be used.

Please strictly follow the following guidelines when operating:

- Before any maintenance operation on the charger, the input power supply must be disconnected;
- Please use appropriate tools and take special measures to ensure that the input power supply has no voltage;

- Before the charger is connected to the power supply, please ensure that the ground wire is connected reliably;
- Power input cables, sockets and all accessories required for installation must meet the current laws and regulations;
- Please install short-circuit protection device at the power supply input end of the charger;
- Cable adapter, conversion terminal or power cord extension line shall not be used for the power cord of the charger;
- Before charging, the electric vehicle and the charger shall be reliably connected through the charging cable;
- It is strictly forbidden to move, modify or connect the charger without using protection devices, safety or monitoring equipment;
- It is strictly forbidden to reconfigure or modify product;
- Product can only run under permitted conditions.

1.1.3 About maintenance

- Do not open the charger;
- Do not touch circuit boards and electronic components;
- If the charger is damaged, do not install and use it;
- The charger can only be repaired by professionals;
- The charger can be cleaned with neutral cleaner (cleaner suitable for plastic parts).

2. Warranty

The warranty period of the charger shall be stipulated by the official sales of manufacturer..

Prerequisites for coverage of product warranty:

Follow the instructions in the manual to ensure that the product will have no fault and will be safe for use.

The following conditions are not covered by the warranty:

- Failure to comply with the installation requirements and use conditions of the charger;
- The capacity of components is not in accordance with the capacity specified by the manufacturer;
- Neglect correct operation flows, carry out incorrect operation, etc.;
- Defects caused by materials provided by the user itself;
- Improper use;
- Incorrect modification and repair;
- Disasters, impact of foreign body and force majeure, etc.

The manufacturer is not responsible for damage caused by third party's actions, including atmospheric discharge, overvoltage and chemical effects.

The warranty does not cover the replacement of wearing parts.

3. Instructions for use

The charger is an electrical equipment for charging the energy storage battery of battery electric vehicles (BEV).

Charging plugs and sockets meet the requirements of IEC 62196 (AC charging, mode 3).

The charger is suitable for indoor and outdoor use.

If the product is faulty or damaged, please contact the technician and inform the manufacturer.



The charger must be installed on the wall or matched pedestal, and the installation must be reliable and stable. It is not allowed to operate the charger in a loose state (not installed reliably), which does not meet the use requirements.



Do not disassemble, tamper with or deactivate the safety device.



No technical changes shall be made to the product without the permission of the manufacturer! In addition, if the operation is illegal, no warranty and claim are allowed.



The product can only be operated under the conditions specified in the manual.



Product installation and use, must be conducted by professional or trained personnel in accordance with the installation and use requirements.



The users must:

Read and understand this manual;

All safety instructions have been read and understood.



The users must:

After installing the Charging station, tighten the gland again



The professionals (Electrical Engineer/Technical Specialist), are only allowed to carry out installation, initial operation, inspection and configuration, and the professionals must have read and understood this manual.

4. Standards and Certificates

Certification	
Standards	IEC 61851-1: 2017 (RED WiFi 2.4GHz----RF: EN 300 328 RF-EMC: EN 301 489-1&-17 Health (MPE): EN 62311) (RED RFID 13.56MHz----RF: EN 300 330 RF-EMC: EN 301 489-1&-3 Health (MPE): EN 62311)
CE certification	CE (Rheinland)/UKCA (Rheinland)
RoHS/REACH Certification	RoHS/REACH (Rheinland)

Technical parameters

Picture		
Model	EVC11C	EVC11B
Power	3.5-11kW	3.5-11kW
Charging mode	MODE 3 CASE C (Tethered version)	MODE 3 CASE B (Socket version)
Standard of charging cable	Type 2	--
Standard of charging socket	--	Type 2
Dimensions (width × height × depth)	260×260×100 mm	260×260×110 mm
Weight	5kg	2.7kg
Material of shell	PC+ASA (UL94-V0)	PC+ASA (UL94-V0)
Heat dissipation	Natural cooling	Natural cooling
Installation	Wall-mounted /pedestal	Wall-mounted /pedestal
Rated voltage	400V±15% (three-phase) 230V ±15% (single-phase)	400V±15% (three-phase) 230 V±15% (single-phase)
Frequency	50Hz±1%	50Hz±1%

Grid system	TN/TT (3P+N+PE) (three-phase) TN/TT/IT(1P+N+PE or 2P+PE) (single-phase)	TN/TT(3P+N+PE) (three-phase) TN/TT/IT(1P+N+PE or 2P+PE) (single-phase)
Efficiency	>99%	>99%
Electric leakage protection	DC leakage (6mA)	DC leakage (6mA)
Charging start methods	APP start RFID card start OCPP start	APP start RFID card start OCPP start
Status display	LED strip display (red/green/blue) APP display	LED strip display (red/green/blue) APP display
Electric energy metering	Metering chip ($\pm 1\%$)	Metering chip ($\pm 1\%$)
Communication	WiFi Ethernet 4G Bluetooth RS485	WiFi Ethernet 4G Bluetooth RS485
OCPP	OCPP1.6J	OCPP1.6J
Upgrade	Local APP upgrade Remote OCPP upgrade	Local APP upgrade Remote OCPP upgrade
Records	Charging record Fault record	Charging record Fault record
Protection function	Overcurrent protection (external MCB) Overvoltage protection Undervoltage protection Relay overtemperature protection Over-temperature protection of charging plug base Over-temperature protection of incoming terminal CP protection Relay adhesion protection Open-phase protection Electric leakage protection Ground protection	Overcurrent protection (external MCB) Overvoltage protection Undervoltage protection Relay overtemperature protection Over-temperature protection of charging plug base Over-temperature protection of incoming terminal CP protection Relay adhesion protection Open-phase protection Electric leakage protection Ground protection
Protection grade	IP65	IP55
Ambient temperature	-25°C ~ +50°C	-25°C ~ +50°C
Humidity	$\leq 95\%$ RH	$\leq 95\%$ RH

5. Installation

The following content describes the installation process of the charger.



Installation must be carried out by qualified professional electrician.

5.1 Installation conditions and environmental requirements

The charger can be used outdoors. The charger must operate in the environment required by the manual, otherwise the life of the charger will be affected. The installation and operation of the charger must meet the following conditions:

- The ambient temperature of use must be $-25^{\circ}\text{C} \sim 50^{\circ}\text{C}$;
- Humidity $\leq 95\%$ RH;
- The installation position shall not have strong vibration or mechanical impact;
- The charger must be kept away from explosives or dangerous goods, conductive medium and harmful gas;
- The charger must be clean, free from mildew, away from wet dust, flammable and explosive gas and liquid, away from heat sources and corrosive environment;
- The installation altitude of the charger is ≤ 2000 meters.

5.2 Accessories for installation

The following accessories are required for the charger installation:

- User manual (1 copy, see the charger accessory bag);
- Expansion screws (4 sets for CASE B version and 7 sets for CASE C version, see the charger accessory bag), which are used to fix the charger on the wall and the charging cable hanging device;
- Positioning cardboard (1 piece, in the charger packing box) for positioning the wall surface mounting hole;
- Before you start installation remove the back pegboard (1 piece, fixed on the back of the charger already), it needs to be disassembled from the charger to fix it on the wall/pedestal;
- Charging cable hanging device (1 piece, in the charger packing box), used for CASE C to wind charging cable.

5.3 Install short-circuit protection device

There is overcurrent protection detection assembly inside the charger. However, a short circuit protection device must be installed at the front end of the charger power supply incoming line, for example, an isolation switch must be installed at the front end of the charger power supply incoming line.

Do not use the charger if short circuit protection device is not installed.

The rated current of short circuit protection device is about 1.2 times of the maximum current of the charger.

If the charger is running at full load, it is recommended that the rated current of short circuit protection device shall be 40A.



Class B or Class C isolation switch must be installed at the front end of the charger power supply incoming line. If you have any questions about the selection of isolation switch, you can contact the manufacturer directly.

5.4 Install residual current protection device

According to IEC61851-1 standard, the charger must include electric leakage protection function. When DC electric leakage (DC leakage signal ≥ 6 mA) occurs during charging, power supply for charging will be disconnected. For clarification this unit has inbuilt DC leakage signal ≥ 6 mA.

An external type A RCCB, with supply disconnection in case of fault current above 30mA must be installed in the upstream side.



The selection and installation of electric leakage detection device must be carried out by qualified electrician.

5.5 Overvoltage protection

The overvoltage level of the charger meets Class III overvoltage protection.

5.6 Power incoming line Installation

The cross-sectional area of the power supply incoming line connected to the charger must be in the range of 6-10 mm².



Power incoming line must be selected by qualified electrician, please refer to national safety regulations and the latest electrical installation technology!

5.7 Power supply system

Both single-phase and three-phase chargers support the following power supply systems:

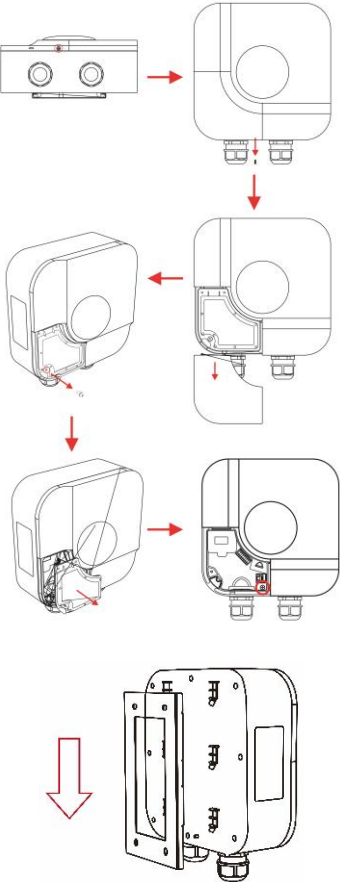
- TN-S;
- TN-C;
- TN-C-S;
- TT;

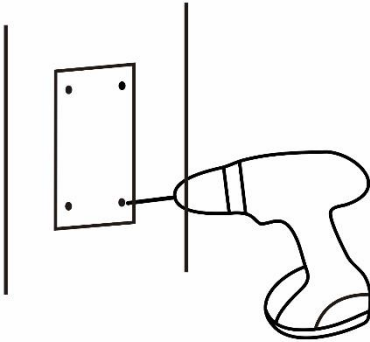
For single-phase charger, in the power supply system with neutral line, the voltage between phase line and neutral line cannot be higher than the rated voltage (a power supply system without neutral wire, the voltage between phase lines cannot be higher than the rated voltage (230VAC).

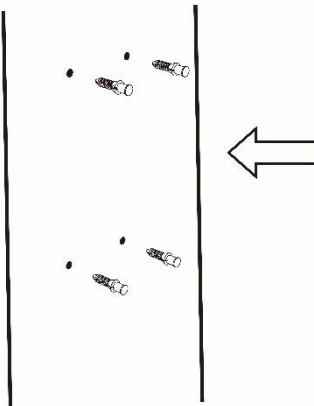
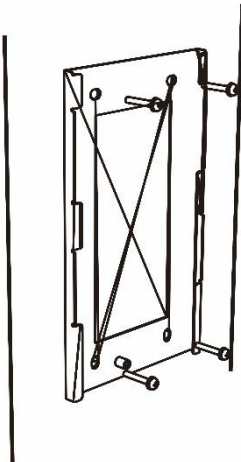
For the three-phase charger, in the power supply system with neutral line, the voltage between the phase line and the neutral line shall not be higher than the rated voltage (230VAC).

5.8 Wall Mounting

The following are the steps for installing the charger on the wall (taking CASE C as an example):

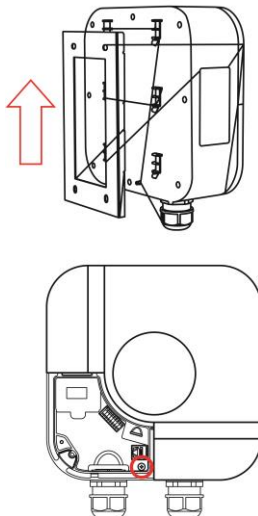
Description	Picture
Remove back bracket: Remove one screw fixing the exterior trim cover plate and remove the exterior trim cover; Remove one screw fixing the sealing cover and remove the sealing cover; Remove a screw fixing the back bracket, slide the back bracket down to remove it from the back of the whole machine;	

Punch holes for wall mounting: The positioning cardboard is attached closely to the wall, and the recommended height is: the distance from the center of the positioning cardboard to the ground is 1300mm; Check whether the positioning cardboard is horizontally aligned with the wall surface; Whole charger: Through the four holes on the whole charger positioning cardboard, mark the punching position on the wall surface; Charging cable holder: Through the three holes on the charging cable holder positioning cardboard, mark the punching position on the wall surface.	
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Install expansion tubes: Whole charger: insert four expansion tubes into four wall surface mounting holes and press them into place by hand. If they are not in place after pressing by hand, please use tools (hammers, etc.) to make the expansion pipes into place; Charging cable holder: insert two expansion tubes into two wall surface mounting holes and press them into place by hand. If they are not in place after pressing by hand, please use tools (hammers, etc.) to make the expansion tubes into place.	
Fix the back bracket: Fix the back bracket: Fix the back bracket on the wall with 4 expansion screws, fix it reliably.	

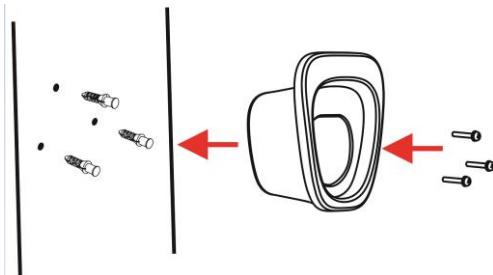
Fix the charger:

Slide the charger down from top to bottom, fix it on the back bracket;
Install 1 screw for fixing the back back bracket.



Fix the charging cable holder:

Insert 3 expansion tubes($\phi 6 \times 60$) into 3 wall surface mounting holes and press them into place by hand. When fixing the charging cable holder on the wall, use 3 expansion screws(ST4.2X60mm) for reliable fixation.



Power wiring:

Remove the power protection cover;

Measure the length of the power cord, strip the power cord, and conduct crimping between the top end of the stripped cable and the tube-shaped terminal, if it is 6mm^2

cable, it is recommended to use a 6012 tube-shaped terminal;

Remove the waterproof gland and fastening ring, and the power cord passes through the waterproof gland and fastening ring;

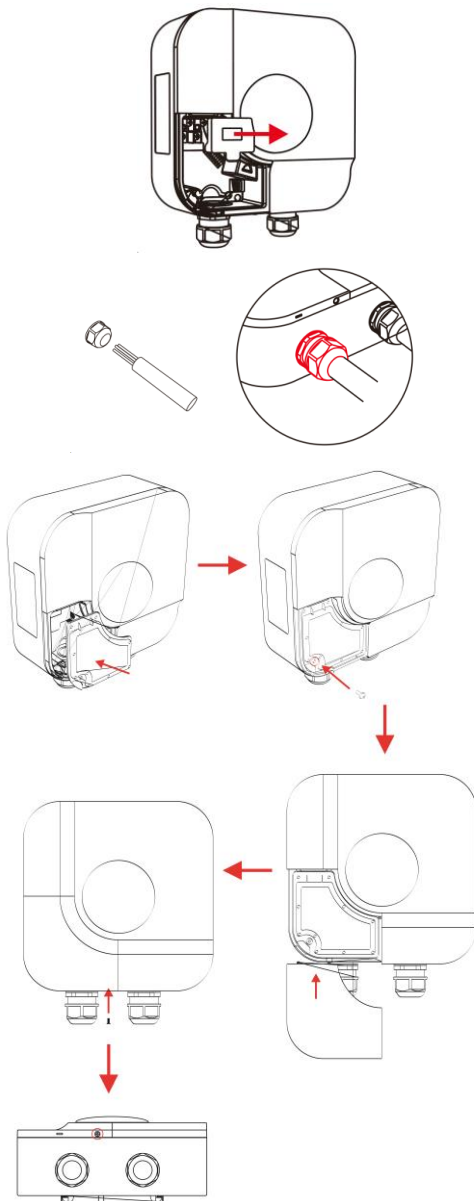
Connect the power cord according to the marks on the sealing cover;

Install the power supply protection cover;

Install the sealing cover, and fix it reliably with one screw;

Install the exterior trim cover, and fix it reliably with one screw;

Installation of the charger is completed!





Ensure that the power supply incoming line is not connected to the power supply.

It should be noted that the power supply incoming line must be fixed tightly with waterproof gland to avoid pulling by external force;

10

Definition of supply power incoming lines (from left to right):

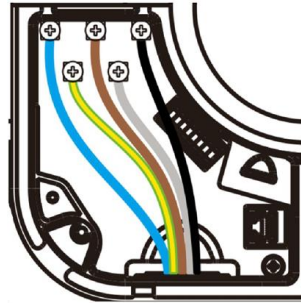
N: Blue

PE: Yellow-green

L1: Brown

L3: Grey

L2: Black



3-phase

8	Wiring of power cord: Remove the power supply protection cover; Measure the length of the power cord, strip the power cord, and conduct crimping between the top end of the stripped cable and the tube-shaped terminal, if it is 6mm² cable, it is recommended to use a 6012 tube-shaped terminal; Remove the waterproof gland and fastening ring, and the power cord passes through the waterproof gland and fastening ring; Connect the power cord according to the marks on the sealing cover; Install the power supply protection cover; Install the sealing cover, and fix it reliably with one screw; Install the exterior trim cover, and fix it reliably with one screw; The installation of the charger is completed!	
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6. Introduction for operation areas

After installation of the charger is completed, the electric vehicle can be charged. The operation area and display of the charger are described below.

6.1 Display Panel

There are display areas on the front of the charger: AREA 1 and AREA 2.



The display functions of each areas are as follows:

Display	Type	Description of functions
AREA 1	RFID card swiping area	Used for swiping RFID card, starting and stopping charging.
AREA 2	LED indicator	LED indicator ring displays the charger status with different colors.

6.2 Card swiping area (AREA 1)

This area is RFID card working area, RFID card is used to start and stop charging. To perform RFID card swiping, the user needs to place the RFID card within the scope of the card statistics device.

6.3 LED indicator (AREA 2)

LED indicator ring		
Color	Flashing mode	Status
White	Flashing	Power on and self-inspection
White	Constant light	Updating
Green	Slow flashing	Standby
Green	Constant light	OCPP platform connected
Blue	Fast flashing	Start charging
Blue	Breathing	Charging
Blue	Slow flashing	Plug in
Blue	Constant light	End charging
Red	/	Fault alarm

7. Introduction for mobile APP

The charger has five communication interfaces for connection to the outside:

- Bluetooth interface: used to connect mobile APP;
- WiFi interface: used to connect OCPP platform;
- Ethernet interface: used to connect OCPP platform, or to realize the networking among multiple chargers through switchboard;
- 4G interface: used to connect OCPP platform;
- RS485 bus interface: Used to connect external electricity meter or CT, realize load balancing function;

7.1 Running environment

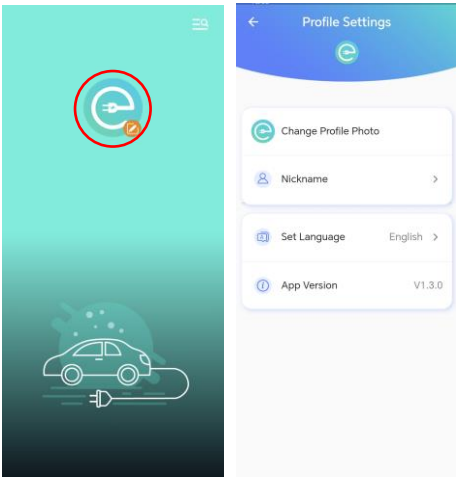
The APP can run on the mobile phone powered by Android 8.0 and IOS 11.0 and above.

7.2 Functions of APP

- Use Bluetooth to interact with the charger;
- The charging function of the charger can be started/stopped;
- You can view the charger parameter information and charging parameters;
- You can view charging records and fault records;
- The charger system settings can be configured;
- The charger online mode can be configured;
- The charger operation modes can be modified;
- Load balancing function can be configured;
- RFID card parameters can be configured;
- The charger can be upgraded remotely;
- You can set reservation charging function of the charger.

7.3 Detailed introduction to APP(See the last page for app download):

7.3.1 User interface

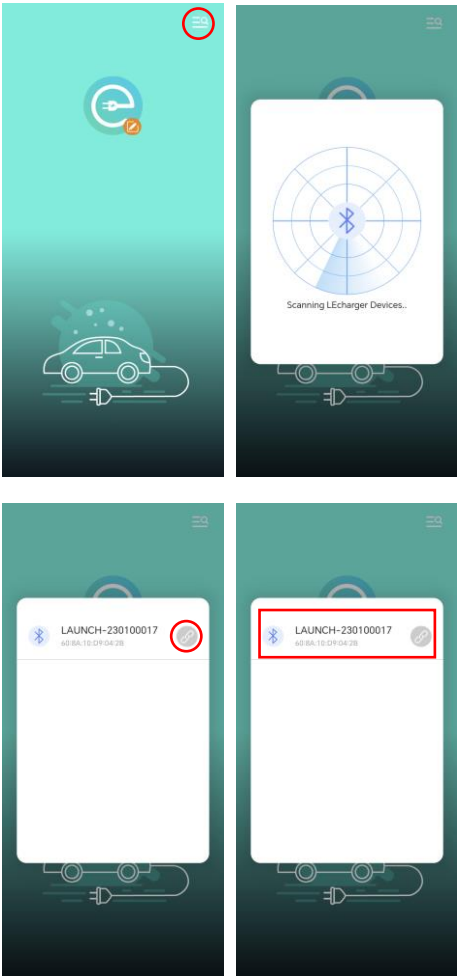
Steps	Description	Picture
1	User configuration: Click the User Configuration button (red circle) in the main interface of the APP to enter the personalized configuration interface of the APP, and set the avatar (currently, users only can select avatar from the avatars built in the APP), nickname, gender and language. The operation instructions and after-sales support of APP are in the Help and Support functions.	

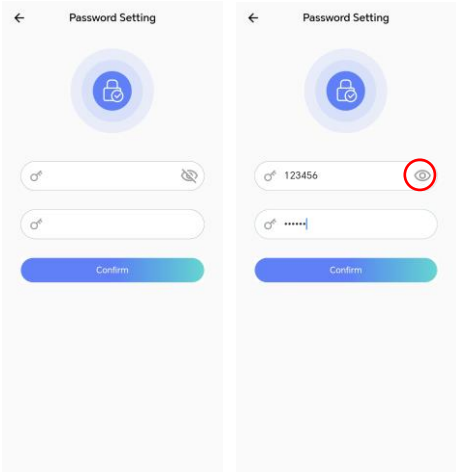
2

Connect the charger:

To find the charger for your device, first look for a red circle button in the upper right corner of the app's main screen. Click that button and the app will show you the names of chargers that are within range and connected by Bluetooth.

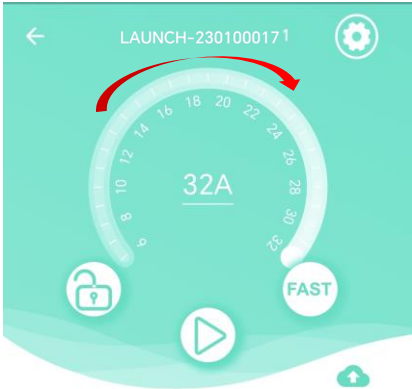
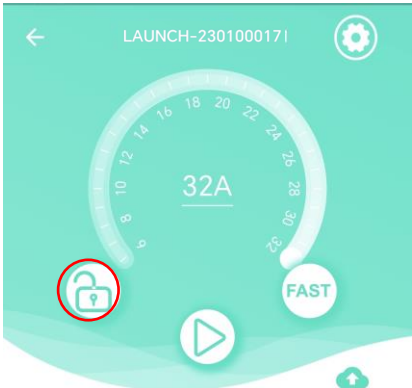
Choose one of the chargers and click the "connect" button to link your device to it. Once you're connected, the name of the charger you're currently using will be displayed in the center of the app's main screen. You can then click that name to access the charger's settings and start using it.



3	Settings of password: When you use the APP for the first time or the charger parameters are reset, the password needs to be configured. When setting the password, you need to input the same password twice before it can be set successfully. The current password is limited to 6 characters a-z, A-Z, 0-9. Make sure both passwords match. There is an eye-shaped icon (the red column in the right second figure) behind the password input column, and the password can be displayed. Click on the eye shaped icon to view password.	
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4 Main interface of the APP: After the password is set, correctly it will enter into the charger menu, which displays: 1. Name of current charger; 2. Configuration option; 3. Maximum charging current; 4. Locking state of electronic lock (CASE B); 5. Start-stop button of the charger; 6. Boost (acceleration) (click this button under ECO/ECO+mode, the charger will switch to FAST mode for charging, and click it again to return to the original state); 7. OCPP platform connection confirmation (white not connected, green connected) ; 8. Networking status (WiFi/4G/Ethernet); 9. Status of Charging station (standby, charging, fault, etc.); 10. Charging information display (charging voltage, charging current, fault status, etc.); 11. Setting of time period of fast charging; 12. Charging statistics.	 The screenshot displays the main interface of the APP. At the top, a back arrow is on the left, and the text 'LAUNCH-230100017' is in the center, with a red box around it and a red number '1' to its left. To the right is a gear icon with a red circle and red number '2'. Below this is a large circular gauge with a red number '3' and '32A' in the center. At the bottom left is a lock icon with a red circle and red number '4'. In the center bottom is a play button icon with a red circle and red number '5'. At the bottom right is a 'FAST' button with a red circle and red number '6'. Below the 'FAST' button is a cloud icon with a red circle and red number '7'. Below the gauge is a horizontal bar with a red number '8' to its left, a circular icon with a red circle and red number '9', the text 'Idle State' in a red box, and a right arrow icon with a red circle and red number '10'. Below the bar are two more red boxes: one with a clock icon, '00:00-06:00', and 'Boost Timer' (labeled with red number '11'), and another with a bar chart icon, '06-27 ~07-26', and 'Charging Statistics' (labeled with red number '12').
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5	Status of the charger: 1. Standby; 2. The charger is plugged in; 3. Charging is starting; 4. Charging is in progress; 5. Pause charging; 6. Charging is completed; 7. Failure; 8. Alarm; 9. Fault and alarm (fault and alarm statuses are displayed at the same time).	
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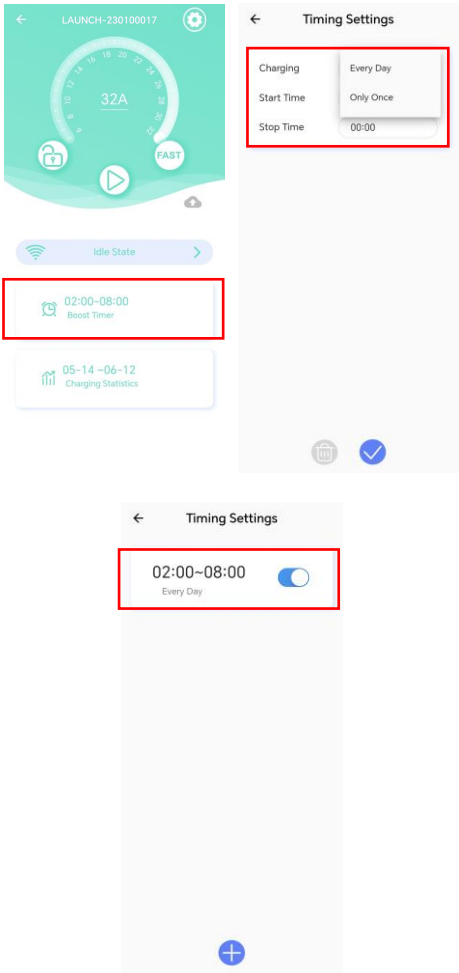
6	Setting of maximum charging current: In the charger menu, the maximum charging current of the charger can be set by sliding the dial. Slide it clockwise, the current will increase and slide it counterclockwise, the current will decrease, and the adjustment accuracy is 1A. For example, as shown in the right figure, adjust the dial clockwise, the current increase to 24A from 16A. 6A to 16 A The maximum current of 7kW and 22kW chargers can be set to 32A, charger can be set to 16A.	 A screenshot of a teal-colored interface for an electric car charger. At the top, it says 'LAUNCH-2301000171' next to a back arrow and a settings gear icon. In the center is a circular dial with numbers from 6 to 32 in increments of 2. The dial is currently set to 32A, which is underlined. A red curved arrow points clockwise from the 16 position to the 24 position. At the bottom of the dial is a play button icon. To the right of the dial is a button labeled 'FAST' with a lock icon. At the bottom right is a small green icon of a car with an upward arrow.
7	This electric car charger has a feature called "State Locking". When the charger is in this mode, it can't start charging the car if it's not already charging. And if it's already charging, it won't start another, click the Lock/Unlock button on the charger's main screen (it's a red circle on the right side of the screen).	 A screenshot of the same teal-colored interface as above. The dial is still set to 32A. A red circle highlights the lock/unlock button, which is located to the left of the 'FAST' button and contains a lock icon.

8

Boost timer:

To use the Boost timer, click on the "Boost timer" icon (it's a red circle) to enter into the timing charging list. If you haven't set up any timing charging yet, the list will be empty. To add timing charging information, click the "+" sign on the interface and choose "Every Day" or "Only Once" for the timing charging period. Make sure the start time is earlier than the end time, and you can set up to four timing charging lists (as shown in the second figure on the right).

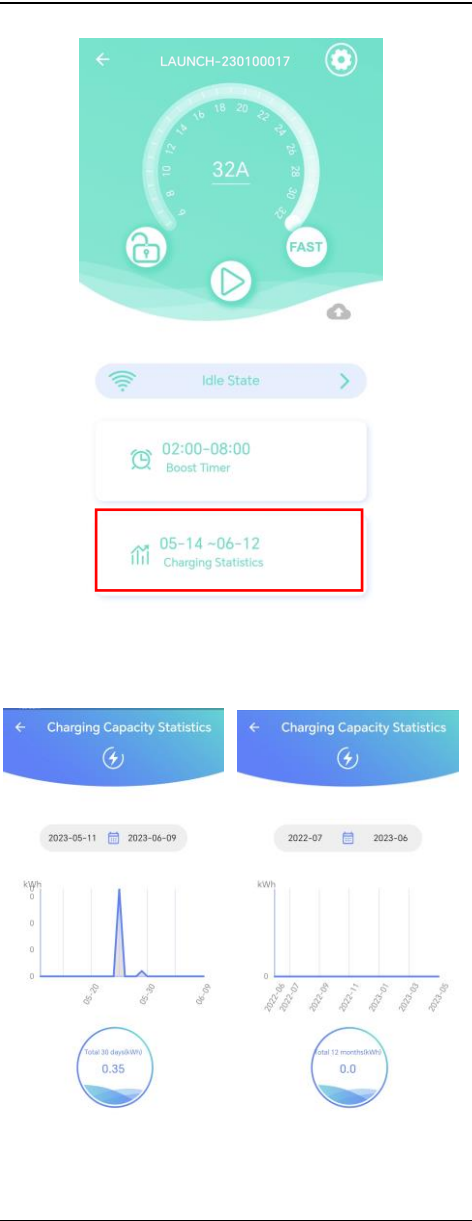
If you try to configure a timing charging period that overlaps with an existing one, you'll get a prompt saying the periods are repeated. Once you've finished setting up the timing charging lists, you can enable or disable any of them. If a timing charging list is configured as "Disable," it won't start charging at that time.

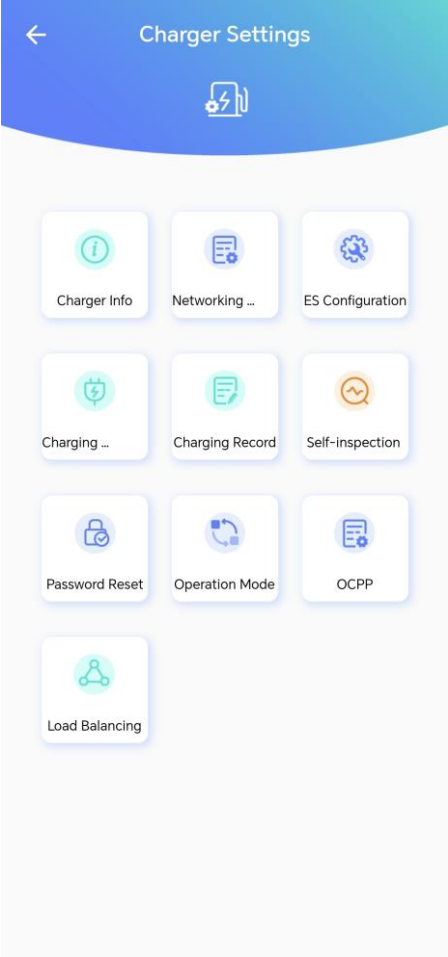


Charging Statistics:

To see how much your charger has been used, go to the main screen of the charging app and click on "charge statistics." This will show you how much the charger was used each day of the most recent month and each month of the most recent year.

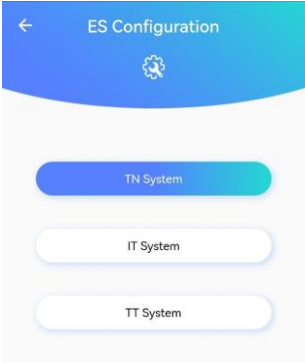
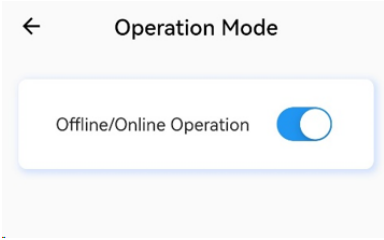
9

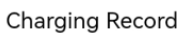


10	The setting interface of the charger: To access the setting interface of the charger, click on the " Configuration option " button on the main screen. This will take you to a screen where you can view and change different functions of the charger. You can see information about the charger, configure the network settings, set up the electrical system, choose the charging mode, view charging records, diagnose faults, reset the password, configure the operation mode, set up OCPP (a type of communication protocol), and configure load balancing. To access any of these functions, simply click on the corresponding item and follow the prompts to make changes as needed.	
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11	 Charger Info The charger information: Click the "Charger Info" button to view the information of current charger, including the charger board SN(serial number), the charger SN(serial number), software version, and the IEMI number, ICCID number and IMSI number of SIM card.	← Charger Info  Board Serial Number 710304040222600570A00 Charger Serial Number 7122060003803101050091A01 Software Version LFB20230216_JLS2103_V973B00D00; V973B00D00 IMEI ICCID IMSI
----	---	---

12	Networking Mode Network configuration: Click the Networking Mode button to select four networking access modes: default networking, WiFi networking, 4G networking and Ethernet. The default networking sequence order is Ethernet > WiFi > 4G. When configuring the default networking mode, the WiFi user name, password, Ethernet IP, subnet mask and gateway must be configured, then the default networking mode can be used. If you choose WiFi for networking, you need to configure your user name and password; If you choose Ethernet, you need to modify IP information according to network requirements; If you choose 4G, you need to insert SIM card into the charger. If the network settings has change, the charger will automatically restart, and after restarting, the operation will be executed according to the network settings after modifying.	
----	---	--

13	 ES Configuration Configuration of power supply system: Click the ES Configuration button to configure the charger power supply system, and TN/IT/TT can be selected.	
14	 Operation Mode Operation mode configuration: Click the Operation Mode button to switch the operation mode of the charger when the charger is idle (no charging plug is inserted); It is divided into online mode (connecting platform for operation) and offline mode (local offline operation). Online mode: the charger is connected to the platform, and all charging operations are controlled by the platform; Offline mode: the charger is connected with APP, and all charging operations are controlled by APP.	



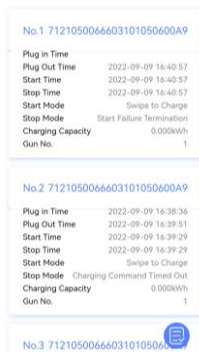
Charging Record

Click the Charging Record button to view the charging record of the current charger. If it has never used for charging, the inquiry interface will be displayed as empty, otherwise the charging record will be displayed in the APP according to

Click the Charging Record button to view the charging record of the current charger. If it has never used for charging, the inquiry interface will be displayed as empty, otherwise the charging record will be displayed in the APP according to

the current charging number and maximum charging number of the charger. Click the Export Charging Record File button in the lower right corner of the charging record interface to export the charging record file in Excel format and it will be stored in the mobile phone.

15



16	Self-inspection Fault self-inspection: Click the Self-inspection button to export a charger inspection report file and it will be stored in the mobile phone. The function is only used for manufacturers to analyze fault states.	← Self-inspection Recording Files /storage/emulated/0/Android/data/ com.ic.hcharger/files/ FaultSelfDiagnosis-2023-06-17 09_52_40.txt
----	--	---

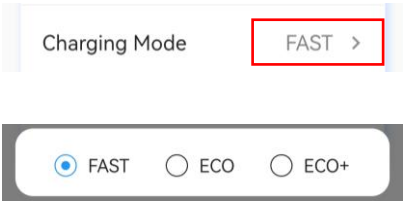
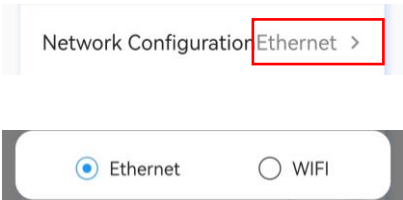
17	Password Reset User password modification: 1. To change your password, click on the "Password Reset" button. If you enter the wrong original password, the system will prompt that the password setting failed. 2. If the new password input twice is inconsistent, it will prompt that two new password is inconsistent; 3. If the new and old passwords input are same, it will prompt that the new and old passwords are same.	← Password Reset 🔑 Original Password 👁️ 🔑 New Password 🔑 New Password Confirm 1 The original password is incorrect 2 The two passwords are inconsistent 3 The original and new passwords cannot be the same
----	---	---

18	Charge Mode Charging Mode: To configure the charging mode of the charger, click on the "Charge Mode" button. This includes the option for Authentication-free Charging and Electronic Lock Fault Enable Mode function. The Authentication-free Charging function can only be used when the charger is offline. This means that the vehicle will start charging as soon as the charging plug is inserted. However, if the charger is switched to online mode, authentication-free charging will not be allowed. The Electronic Lock Failure Enable Mode function allows charging to continue even if the charger reports an electronic lock failure. Users can choose this function, which will activate when the charging plug is inserted or removed.	Charging Configuration Authentication-free Charging ☐ Electronic Lock Fault Enable Mode ☐
----	---	---

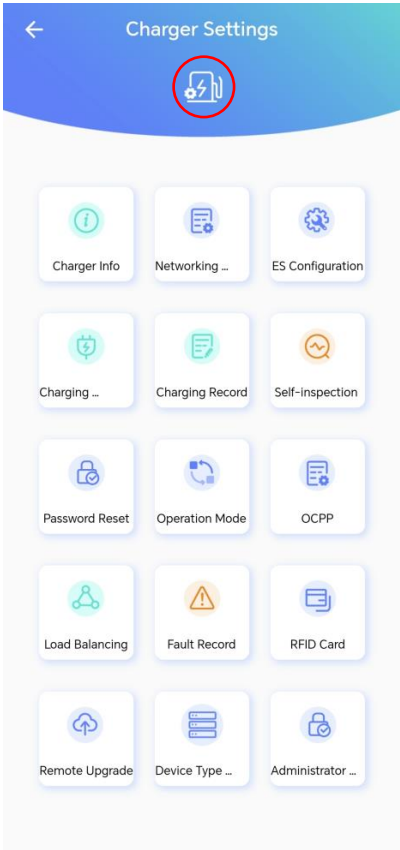
19	OCPP OCPP settings: Click the OCPP button to configure the OCPP server address and CPID for the charger. The server address must be used to log in the OCPP server under online mode for the charger.	OCPP OCPP Server Address wss://ocpp.monta.app EV Charger Identification Code 122070000503101050091A01 Settings
----	---	--

20	Load Balancing Load balancing configuration: Click the Load Balancing button, you can select: 1. Whether the load balancing function is enabled; 2. Configure the phase position of single-phase charger in power supply system; 3. Configure the master-slave mode of the charger; 4. Configure the charging mode; 5. Configure the charger networking mode (WiFi and Ethernet); 6. Configure the usable grid current under ECO+mode, and the setting range is 0-5A; 7. Selection of master charger electricity meter or CT, and configuration of electricity meter or CT address; 8. Maximum incoming current; 9. Three phase current balance.	← Load Balancing 1 Load Balancing Enable ☒ 2 Phase Not Set > 3 Master ☒ 4 Charging Mode ECO+ > 5 Network Configuration Ethernet > 6 ECO+ Max Current 0-5 7 Grid Side Meter Not Set > 8 Grid Side Fuse Blowing Current. 9 Three-phase current balance ☐ Confirm
----	--	---

21	In the Load balancing Setting, the interface of main charger is shown in the upper figure in the right, and the interface of the slave charger is shown in the lower figure.	← Load Balancing Load Balancing Enable ☒ Phase B > Master ☒ Charging Mode ECO+ > Network Configuration WIFI > ECO+ Max Current 3.7 A Grid Side Meter DTSU666 > Grid Side Fuse Blowing Current 6 A Three-phase current balance ☒ Confirm ← Load Balancing Load Balancing Enable ☒ Phase Not Set > Master ☐ Charging Mode ECO+ > Network Configuration WIFI > Confirm
----	---	--

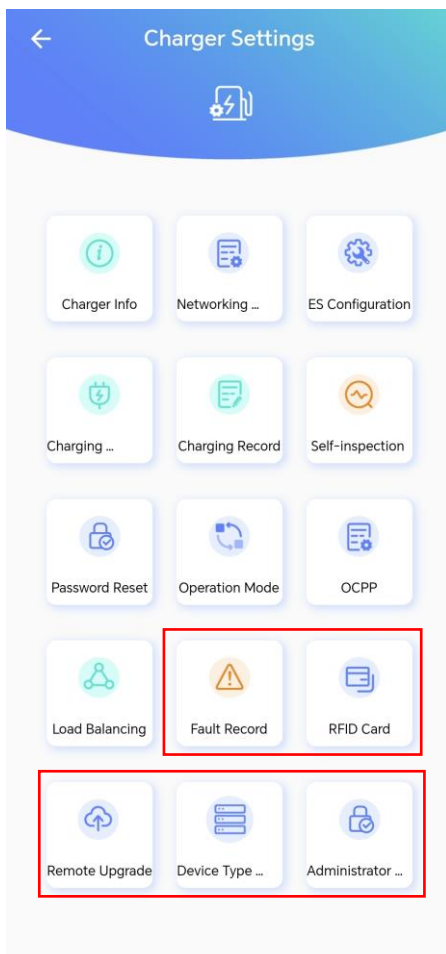
22	In the Load Balancing Setting, for the charging mode configuration, click the red column in the right picture to select "Fast", "ECO" and "ECO +" modes.	
23	In the Load Balancing Setting, the charger networking mode can be configured. Click the red column in the right picture to conduct the load balancing network configuration, and you can select WiFi or Ethernet.	
24	In the Load Balancing Setting, click the red column in the right picture, you can make the selection: connect the main charger to the electricity meter or CT through RS485, and configure the address of the electricity meter or CT, and the address of the electricity meter is 2 by default.	

7.3.2. Administrator operation interface

Steps	Description	Picture
1	Enter the administrator interface: In the Charger Setting, some items can only be used under the administrator mode. After clicking the charger icon in the setting interface 5 times (red column in the right figure), enter into the administrator interface, and the default password is 123456. After inputting the correct administrator password, you can enter administrator mode and can read and configure the items which require administrator permission.	

2

Administrator interface: The administrator interface includes common configuration items (which were introduced in the user operation interface section) as well as some additional functions. These additional functions include the ability to read fault records, configure RFID cards, perform remote upgrades, configure device types, and modify the administrator password.



3	Fault Record View the charging fault records: Under the administrator mode, click the Fault Record button to view the fault record of the current charger. Similar to the charging record, you can view the fault record according to the quantity and total number of fault records stored in the current charger, and click the Export button in the lower right corner to export the fault record file in Excel format.	Fault Record total: 709 No.17121050066603101050600A9 Fault Start Time2022-09-09 16:48:24 Fault End Time2022-09-09 18:45:23 Fault DescriptionPower Failure Fault No.27121050066603101050600A9 Fault Start Time2022-09-09 16:40:11 Fault End Time2022-09-09 16:40:52 Fault DescriptionPower Failure Fault No.37121050066603101050600A9 Fault Start Time2022-09-09 16:39:57 Fault End Time2022-09-09 16:40:11 Fault DescriptionCP voltage abnormal Fault No.47121050066603101050600A9 Fault Start Time2022-09-09 16:37:40 Fault End Time2022-09-09 16:37:40 Fault DescriptionPower Failure Fault
---	---	---

4	RFID Card In administrator mode, you can configure the RFID card settings by clicking on the "RFID Card" button in the app. This will display the whole list of card numbers currently stored in the charger, as well as allow you to read the card number from a physical charging card. To read the card number from a physical charging card, click on the "Read Card Number" button and hold the card up to the card-swiping area (AREA1) of the charger. The card number will be read and can be copied and written into the white list of the charger's card numbers. If the card number is less than 16 digits, the system will prompt that the card number is incomplete.	
----------	--	--

5	Remote Upgrade Remote upgrade: Under administrator mode, copy the upgrade link to the input column, click the Remote Upgrade button, and the APP can remotely upgrade the charger software. First, connect the charger to the network (if Ethernet or 4G cannot be used, you can turn on the hotspot of the mobile phone and provide it for the charger), and then send the "URL" of the upgrade pack to the charger (FTP/HTTP/HTTPS are temporarily supported). After the upgrade package is downloaded, it will prompt that the upgrade request is successful and it starts the upgrade; if the download fails or the URL is incorrect, it will prompt that the request failed. After the upgrade and restarting of the charger is completed, the upgrade result will be fed back according to the result.	← Remote Upgrade http/https/ftp/https Request Upgrade
---	---	---

6	Device Type Settings Configuration of equipment type: Under administrator mode, click the Device Type Settings button to set the equipment type of the charger. The charger power can be configured to 7KW (single phase) and 22KW (three phases). For connection mode, you can choose CASE B (charging socket version) and CASE C (charging cable version); Abnormal range of CP: 0.8 V and 1.0 V; Electronic lock authentication enabling (under the case B connection mode); Open state: in the standby state or the charging finishes, the charging plug and the charger continue to be locked, and the charging plug cannot be pulled out from the charger; Close state, the electronic lock is automatically unlocked after charging finishes, and the charging plug can be pulled out from the charger.	
---	--	---

7	 Administrator Password Reset Administrator password modification: Under the administrator mode, click the Administrator Password Reset button to change the administrator password; Similar to the modification of the user password, the previous administrator password (default is 123456) and the new administrator password can be input, and they cannot not be same.	 Administrator Password ...   Original Password   New Password  New Password Confirm
---	--	--

8. OCPP Connection

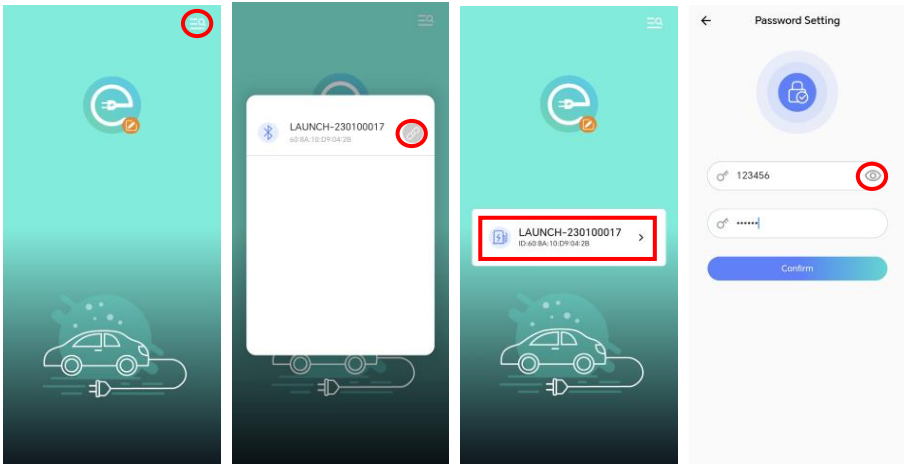
The charger is connected to OCPP server, which provides a network-based management solution for the charging session.

Through OCPP software platform(back office), the charging session of the charger can be remotely controlled and order management can be carried out (such as charging authorization, report, etc.) .

The charger only supports OCPP1.6J protocol.

8.1 Connection steps of OCPP

8.1.1 Log in to the APP

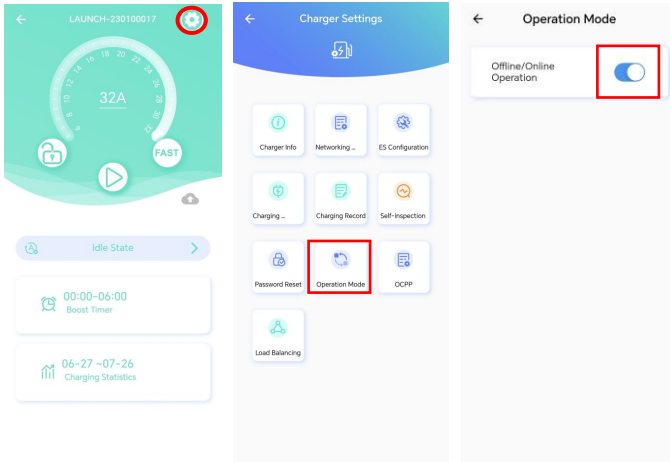


8.1.2 Operation mode configuration:

Click the Operation Mode switch the operation mode of the charger when the charger is idle (no charging plug is inserted);

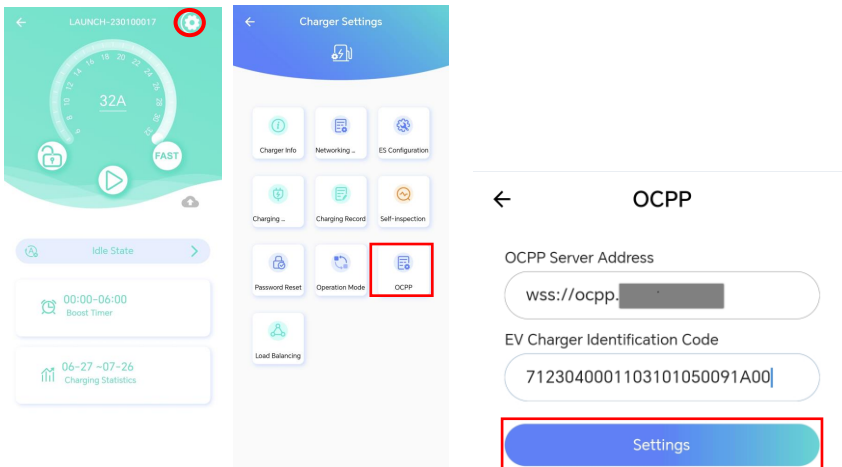
When leaving the factory, it is in online mode, please ignore this step!

Select online mode:

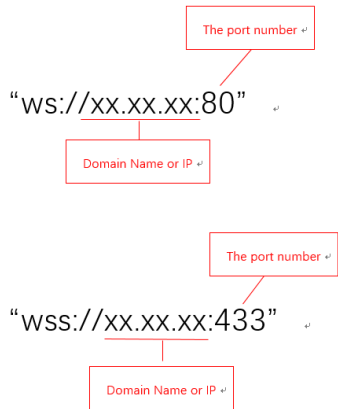


8.1。 3 OCPP settings:

Click the OCPP button to configure the OCPP server address and CPID for the charger, setting completed, click to confirm(When leaving the factory, the OCPP address and CPID have been set, please ignore this step):



The OCPP server address format is as follows:



The example is as follows:

OCPP server address: `ws://13.200.14.12:58080`

CPID:7121050066603101050600A03

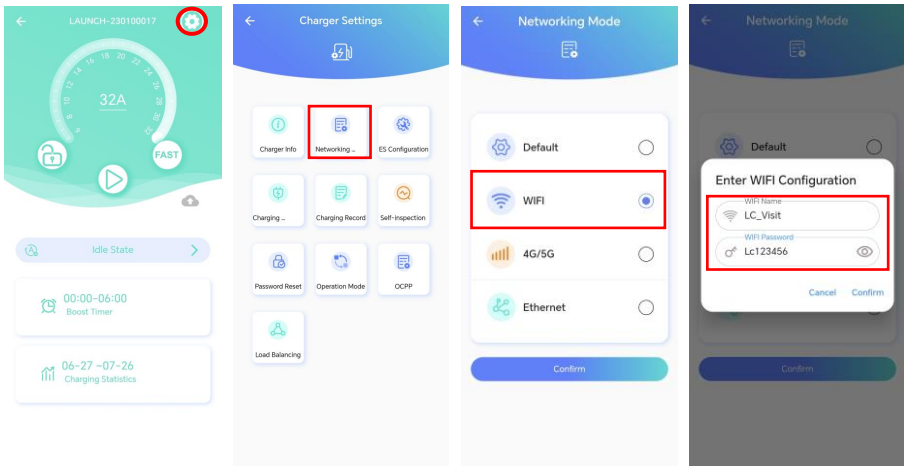
For example, CPID is the SN (serial number) of charging equipment, it is for reference only.

Different platforms have different CPID values. When connecting specific platforms, you shall obtain the corresponding CPID value from the platform.

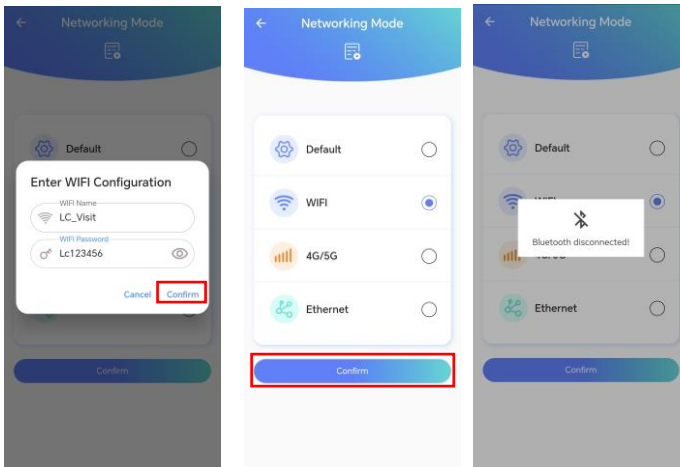
9.1.4 Connecting to the OCPP platform through WiFi or 4G or Ethernet.

Connecting to the OCPP platform through WiFi:

Configure WiFi(Input the WiFi name and WiFi password);

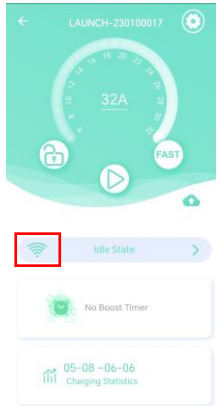


Click to confirm and the WiFi module restarts (waiting for approximately 15 seconds);

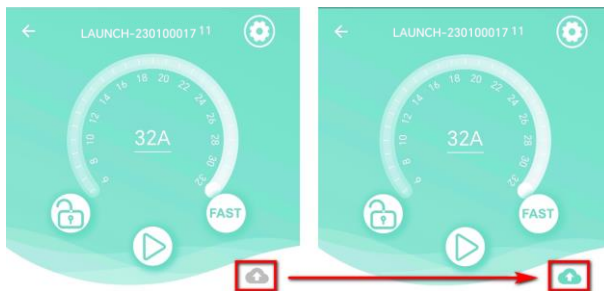


Repeat step 1, Log back into the APP;

The following figure represents a successful connection to the network through WiFi;

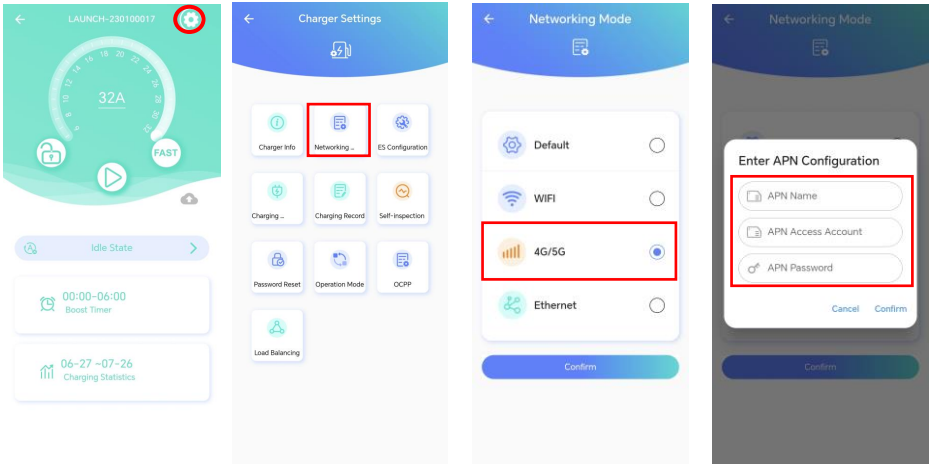


The following figure indicates successful connection to the OCPP platform

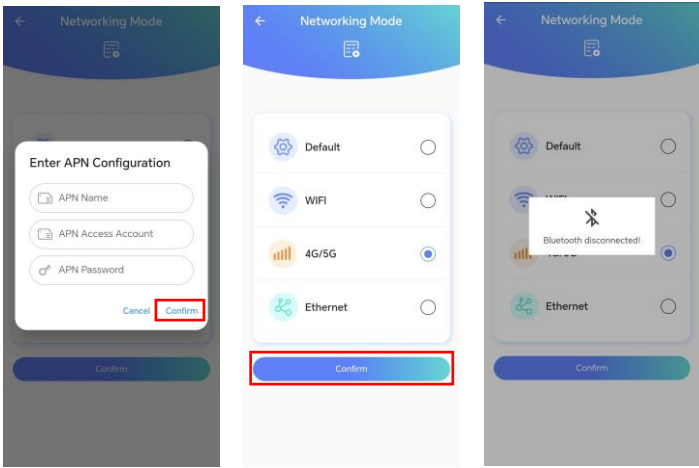


Connecting to the OCPP platform through 4G:

Configure 4G(If the SIM card needs to configure APN, write the APN parameter in the 4G option;
If the SIM card does not need to be configured with an APN, no content will be written in the 4G
option. Simply click confirm);

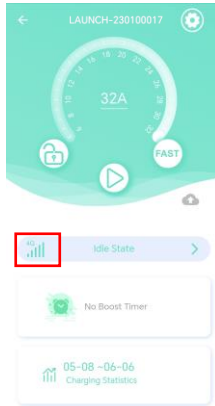


Click to confirm and the 4G module restarts (waiting for approximately 15 seconds);



Repeat step 1, Log back into the APP;

The following figure represents a successful connection to the network through 4G;

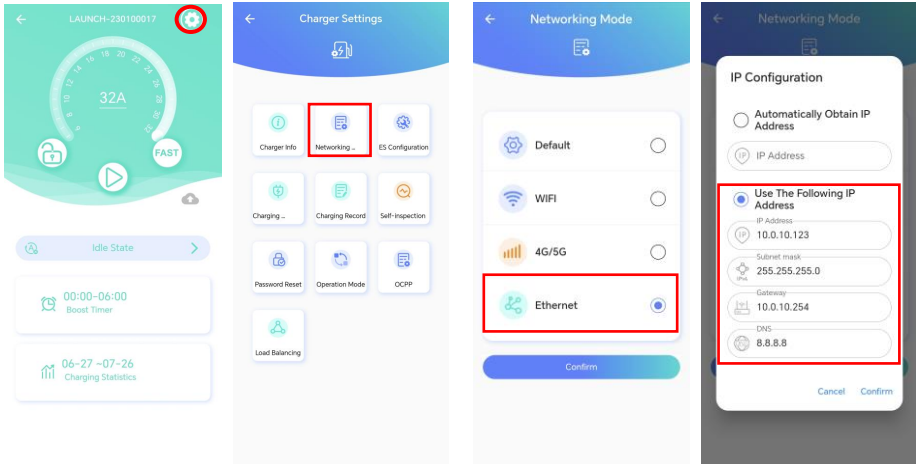


The following figure indicates successful connection to the OCPP platform

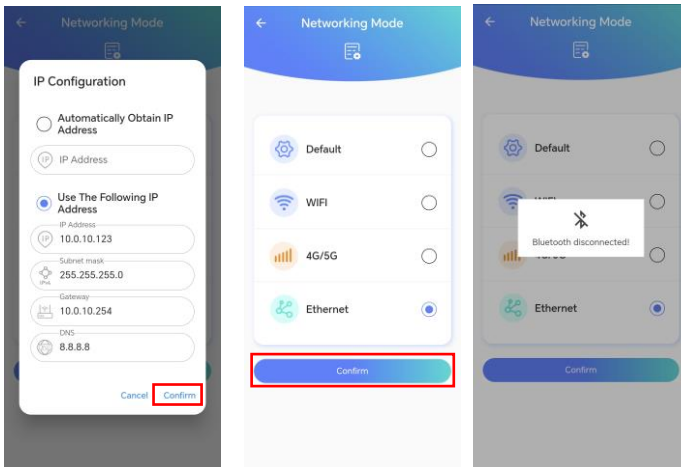


Connecting to the OCPP platform through Ethernet:

Configure Ethernet (Enter Ethernet IP address);

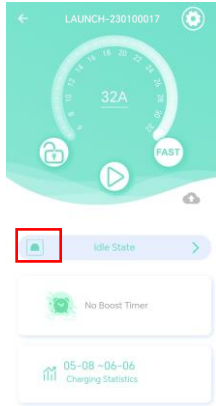


Click to confirm and the Ethernet module restarts (waiting for approximately 15 seconds);



Repeat step 1, Log back into the APP;

The following figure represents a successful connection to the network through Ethernet;



The following figure indicates successful connection to the OCPP platform



8.2 OCPP1.6J supports the following functions:

Operations Initiated by Central System				
<i>SN</i>	<i>ITEM</i>	realized	restrictions	
1	Cancel Reservation	✓		
2	Change Availability	✓		
3	Change Configuration	✓	✓	Refer to Limit Configuration Key List
4	Clear Cache	✗		
5	Clear Charging Profile	✓		
6	Data Transfer	✓	✓	Agreements need to be made with specific OCPP Server
7	Get Composite Schedule	✓	✓	Retrun 24 hours Schedule
8	Get Configuration	✓		
9	Get Diagnostics	✓	✓	Agreements need to be made with specific OCPP Server
10	Get Local List Version	✓		
11	Remote Start Transaction	✓		
12	Remote Stop Transaction	✓		
13	Reserve Now	✓		
14	Reset	✓		
15	Send Local List	✓		
16	Set Charging Profile	✓	✓	Not support recurrencyKind with Weekly
17	Trigger Message	✓		
18	Unlock Connector	✓		
19	Update Firmware	✓		

Operations Initiated by Charge Point				
<i>SN</i>	<i>ITEM</i>	<i>realized</i>	<i>restrictions</i>	<i>note</i>
1	Authorize	✓		
2	Boot Notification	✓		
3	Data Transfer	✓	☑	Agreements need to be made with specific OCPP Server
4	Diagnostics Status Notification	✓		
5	Firmware Status Notification	✓		
6	Heartbeat	✓		
7	Meter Values	✓	☑	Energy.Active.Import.Register, Current.Import, Voltage
8	Start Transaction	✓		
9	Status Notification	✓		
10	Stop Transaction	✓		

Limit Configuration Key List		
<i>SN</i>	<i>Key</i>	<i>Default Value</i>
1	StopTransactionOnEVSideDisconnect	TRUE
2	AuthorizationCacheEnabled	FALSE
3	ConnectionTimeOut	0
4	MinimumStatusDuration	0
5	BlinkRepeat	0
6	LightIntensity	100
7	MaxEnergyOnInvalidId	0
8	ResetRetries	1
9	MeterValuesSampledData	Voltage, Current.Import, Energy.Active.Import.Register
10	MeterValuesAlignedData	Voltage, Current.Import, Energy.Active.Import.Register
11	StopTxnAlignedData	Energy.Active.Import.Register
12	StopTxnSampledData	Energy.Active.Import.Register
13	ConnectorPhaseRotation	Unknown

9. Charging Operation

Before beginning the charging process, it is important to make sure that the charger's plug is securely connected to the electric vehicle.

In the CASE B charging mode (where the charger has a charging socket), one end of the Type 2 Standard charging cable should be connected to the charger while the other end should be connected to the electric vehicle.

In the CASE C electric mode (where the charger has a charging cable), the charging cable of the charger should be connected to the electric vehicle.

Note: In the CASE B charging mode, the charging socket is equipped with an electronic lock which automatically locks the charging plug during charging. Do not forcefully pull out the charging plug during this time.

To start or stop charging through the APP, refer to section 8.5 for information on connecting and navigating the APP. You can use the "Start and Stop" button (located in the red column below) on



9.1 Start/stop charging through RFID card

When the charger is reliably connected to the electric vehicle, place the RFID in the card swiping area of the charger (AREA1), and it shall be close to the card swiping area as far as possible. When the buzzer generates the "beep" sound, the LED lamp of the charger changes from the "blue lamp always on" to the "blue lamp flashing", and the charger starts charging the electric vehicle.

If you need to stop charging, please place RFID close to the card swiping area again (as close as possible

to the card swiping area), and the buzzer generates the "beep" sound, and the charging session is finished. At this time, you can unplug the charger.



Warning: When swiping the card to start charging, if the buzzer generates the "beep" sound twice (the interval is about 0.5s), it means that the RFID card is not authorized!

9.2 Start/stop charging through platform

The platform starts and stops the charging according to OCPP1.6J standard protocol. Before the platform issues the starting command, please ensure that the car is reliably connected to the charger.

9.3 Schedule charging

"Schedule charging" can be set in the mobile APP. When the scheduled charging time starts, the charger automatically starts charging, and the charging current is the maximum current under load balancing adjustment. The red column time period in the following figure is the scheduled charging time period.



10. Power management (with external smart meter or CT)

The charger can be connected to the electricity meter or CT through an external port (RS485) to reasonably distribute the power energy.

The charger has an external port, which can be connected to an external smart electricity meter (optional).

The charger can identify the available power of the grid power supply, this means that the charger can adjust the charging power in real time according to the remaining power of other loads (load balancing, see Chapter 12).

Example for description (single phase):

If the power provided by the power grid is 3.7 kW, the charger can conduct charging with the charging power of 3.7 kW (current 16A). At this time, if other loads in the same power grid use 2kW power, the charger automatically adjusts the charging power according to the power management strategy, and the charging power that the charger can use is $3.7 - 2 = 1.7$ (kW). At that time, the charger charges the electric vehicle with the power of 1.7 kW.

Note: Under the same power grid, the electricity consumption authority of household load is higher than that of the charger.

11. Load Balancing

11.1 Brief introduction to the function.

11.1.1 Protect the safety of household electricity use and prevent excessive charging power from causing protection of household front air switch and power failure;

11.1.2 Detect three-phases imbalance to prevent excessive load of power grid due to too large power consumption of one phase;

11.1.3 Household electricity use has priority.

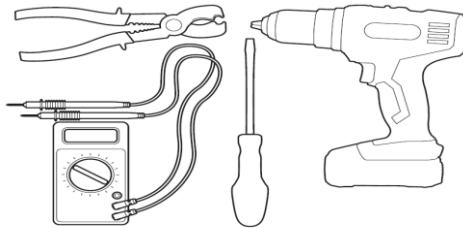
11.2 Wiring

11.2.1 Tools

Screwdriver: Electric or manual (straight screwdriver and Phillips screwdriver);

Multimeter;

Cable stripper.



11.2.2 Connecting the devices

The charger;

Smart meter or current transformer clamp(CT Clamp);

Note: Due to the particularity, the CT or electricity meter used must be provided by manufacturer!

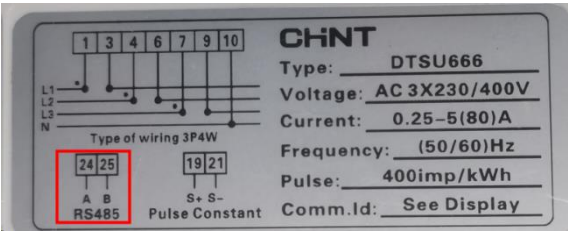
Router;

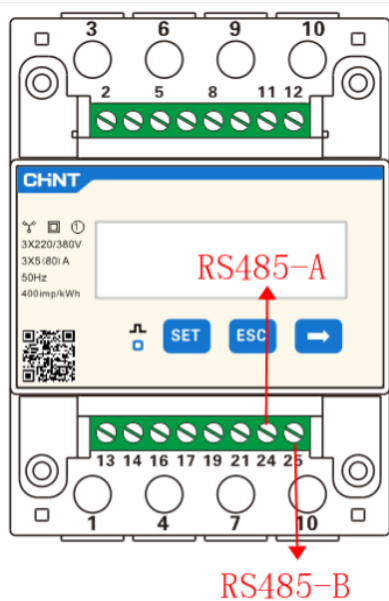
Network cable.



11.2.3 Smart meter signal wiring

Three-phase smart meter signal wiring: Three-phase smart meter and the charger are connected by RS485 communication lines, and RS485 signal wiring of three-phase smart meter is shown in the following figure:

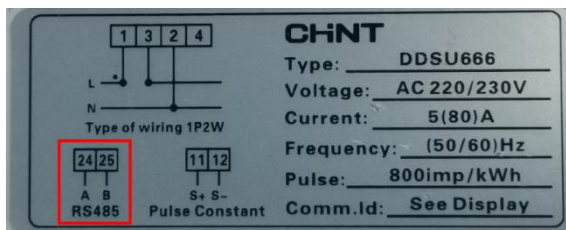


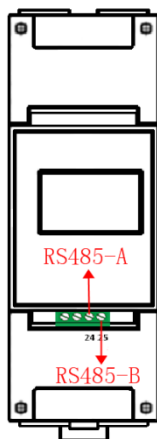


The smart meter signal port "24" is RS485 signal A ;

The smart meter signal port "25" is RS485 signal B.

Single-phase smart meter signal wiring: Single-phase meter and the charger are connected by RS485 communication lines, and RS485 signal wiring of single-phase meter is shown in the following figure:



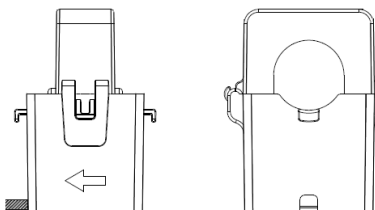


The smart meter signal port "24" is RS485 signal A;

The smart meter signal port "25" is RS485 signal B.

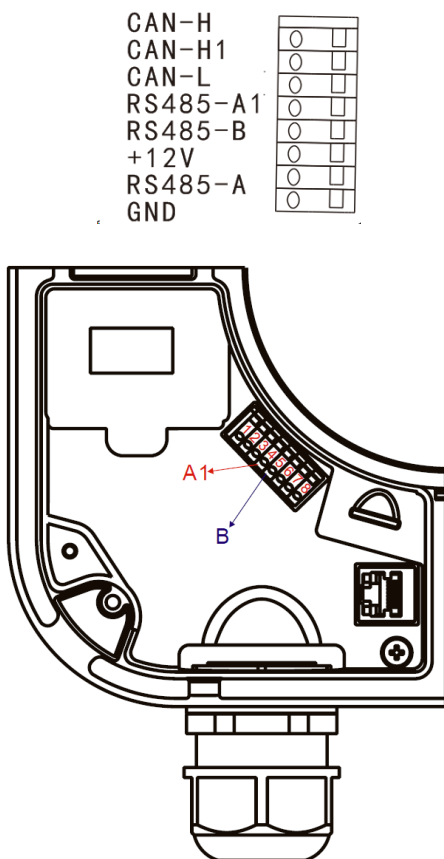
11.2.4 The current transformer clamp signal wiring is shown in the following figure:

Wire color	code	function	remarks
green	B	communication line (RS485B)	
yellow	A	communication line (RS485A)	
black	G	working power-ground	0V
red	+	working power-positive	12V DC



11.2.5 The charger signal wiring

The charger and smart meter signal wiring: the charger and smart meter are connected by RS485 communication cable, and the charger RS485 signal wiring is shown in the following figure:



The charger signal port "4" is RS485 signal A1 (red arrow in above figure);

The charger signal port "5" is RS485 signal B (blue arrow in above figure);

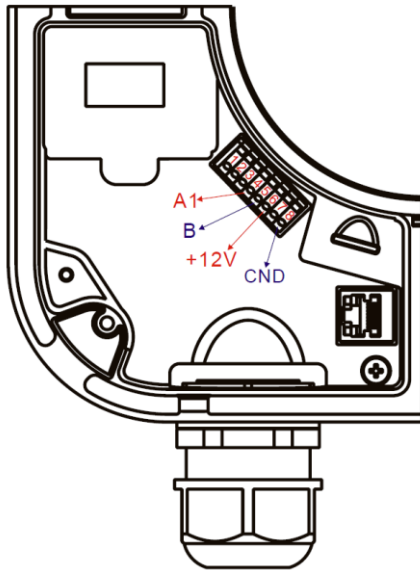
The charger signal RS485 signal A1 is added with 120 Ω terminal resistance.

The wiring between the smart meter and the charger is as follows:

The charger signal port "4" (RS485 signal A1) is connected with the electricity meter signal port "24" (RS485 signal A);

The charger signal port "5" (RS485 signal B) is connected with the electricity meter signal port "25" (RS485 signal B);

Connection between the charger and current transformer: the charger and current transformer are connected by RS485 communication cable, the charger provides 12V power supply to current transformer, and the charger signal line is shown in the following figure:



The charger signal port "4" is RS485 signal A1 (red arrow in above figure);

The charger signal port "5" is RS485 signal B (blue arrow in above figure);

The charger signal RS485 signal A1 is added with 120 Ω terminal resistance.

The charger signal port "6" is +12V;

The charger signal port "8" is GND;

The wiring between current transformer and the charger is as follows:

The charger signal port "4" (RS485 signal A1) is connected with the "yellow" cable of current transformer;

The charger signal port "5" (RS485 signal B) is connected with the "green" cable of current transformer;

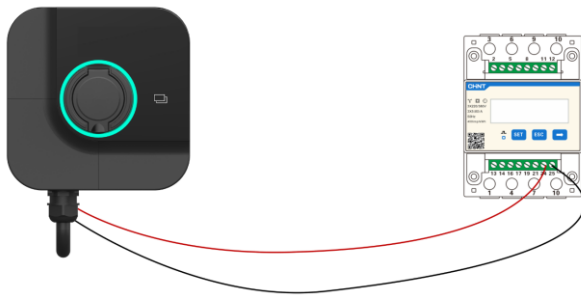
The charger signal port "6" (+ 12V) is connected with the "red" cable of current transformer;

The charger signal port "8" (GND) is connected with the "black" cable of current transformer;

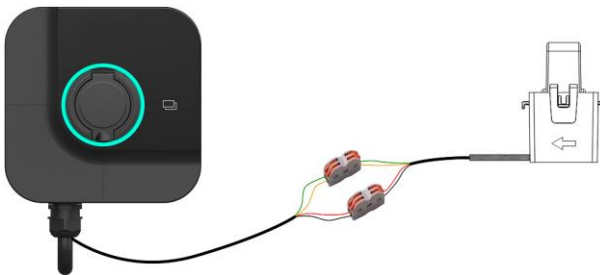
If the grid system is single-phase, it can be connected with single-phase electricity meter or one current transformer.

If the grid system is three-phase, it can be connected with smart electricity meter or three current transformers.

Examples of wiring between three-phase electricity meter and the charger are as follows:

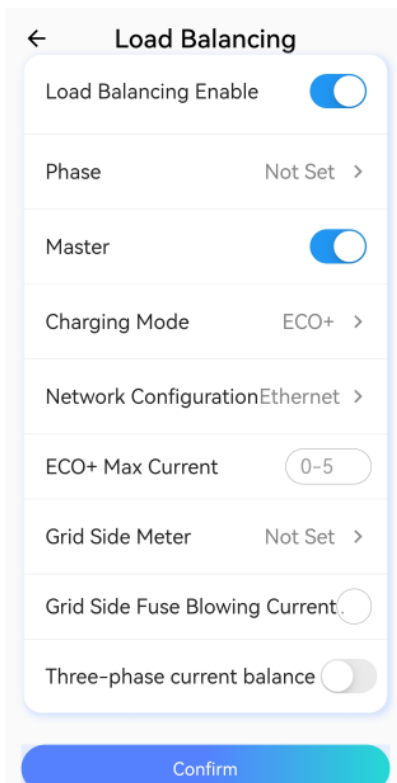


Examples of wiring between current transformer and the charger are as follows:



11.3 Load Balancing Configuration

Connect APP, enter administrator mode, open "Load Balancing", select Load Balancing Enable, and set phase, the master and solar working mode. Make sure that the settings are consistent with the actual connection, otherwise the load balancing may not work normally.



The screenshot shows a mobile application interface for "Load Balancing" configuration. At the top, there is a back arrow and the title "Load Balancing". Below this, a list of settings is displayed, each with a label and a value or control element. The settings are: "Load Balancing Enable" with a blue toggle switch; "Phase" with the value "Not Set" and a right arrow; "Master" with a blue toggle switch; "Charging Mode" with the value "ECO+" and a right arrow; "Network Configuration" with the value "Ethernet" and a right arrow; "ECO+ Max Current" with a range selector showing "0-5"; "Grid Side Meter" with the value "Not Set" and a right arrow; "Grid Side Fuse Blowing Current" with a circular dial; and "Three-phase current balance" with a grey toggle switch. At the bottom of the screen, there is a large blue button labeled "Confirm".

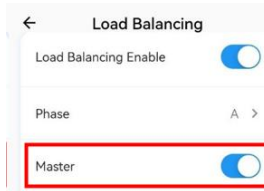
Setting	Value/Control
Load Balancing Enable	☒
Phase	Not Set >
Master	☒
Charging Mode	ECO+ >
Network Configuration	Ethernet >
ECO+ Max Current	0-5
Grid Side Meter	Not Set >
Grid Side Fuse Blowing Current	
Three-phase current balance	☐

Confirm

Description of load balancing configuration

Master:

Enable the master, set the master/slave mode of the charger. The charger connected with smart meter is the master, and the charger which is not connected with smart meter is the slave. Configure information of the master as shown in the following figure, and configure the following information according to the actual master/slave situation of the charger.



Phases:

Configure the phases of the power grid system where the single-phase charger is located. If it is connected to Phase A of the power grid, configure this parameter as A.

Solar working mode:

According to the actual usage scenario, configure the charging mode, three charging modes can be configured: FAST, ECO and ECO + mode.

FAST: Quickly charge with the maximum charging power without exceeding the maximum current set by the user.

ECO mode: It is continuous charging mode. When solar energy is sufficient, consume the solar energy as much as possible, and when solar energy is insufficient, it charges the vehicle according to the minimum charging current.

ECO + mode: Green and economic mode. When solar energy is sufficient, consume solar energy as much as possible, and when solar energy is insufficient, the allowed maximum consumption of non-solar current is a fixed value, when the consumption exceeds the value, charging is suspended.

ECO +current: under ECO+ mode, maximum non-solar current allowed for consumption.

Network settings: Configure the network parameters of load balancing, including WiFi and Ethernet (two chargers are connected through WiFi or Ethernet);

Ethernet: Users can choose fixed IP or dynamically allocate IP addresses;

The image shows a mobile application screen titled "IP Configuration". It has two main sections. The first section, "Automatically Obtain IP Address", is selected with a blue radio button. The second section, "Use The Following IP Address", is unselected. Below the second section are three input fields: "IP Address" with the value "10.10.11.234", "Subnet mask" with the value "255.255.255.0", and "Gateway" with the value "10.10.11.254". At the bottom right, there are two buttons: "Cancel" and "Confirm".

WiFi: Input the correct WiFi name and WiFi password;

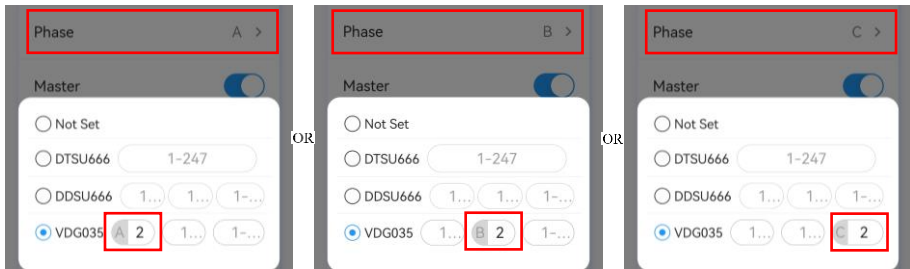
Note: Ensure that the device load balancing network configuration is the same for all devices, otherwise communication may fail and the load balancing function will not work normally.

Power grid side smart meter: Configure the address of power grid side smart meter (address is in red column), and the address of electricity meter is 2 by default.

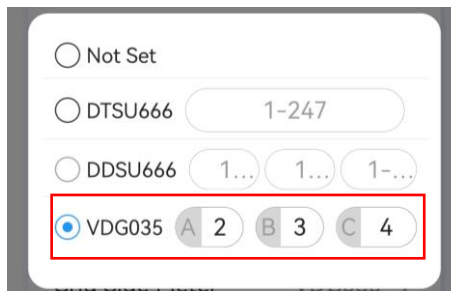
Power grid side CT: select the VDG035(Only used for power supply systems without photovoltaic and energy storage batteries).

For single phase:Selection and input 2 (other number is also okay) for Corresponding phase.

Phase A or B or C Corresponding input the number;



For three phase: Selection and input different number (other number is also okay) for Corresponding phase;



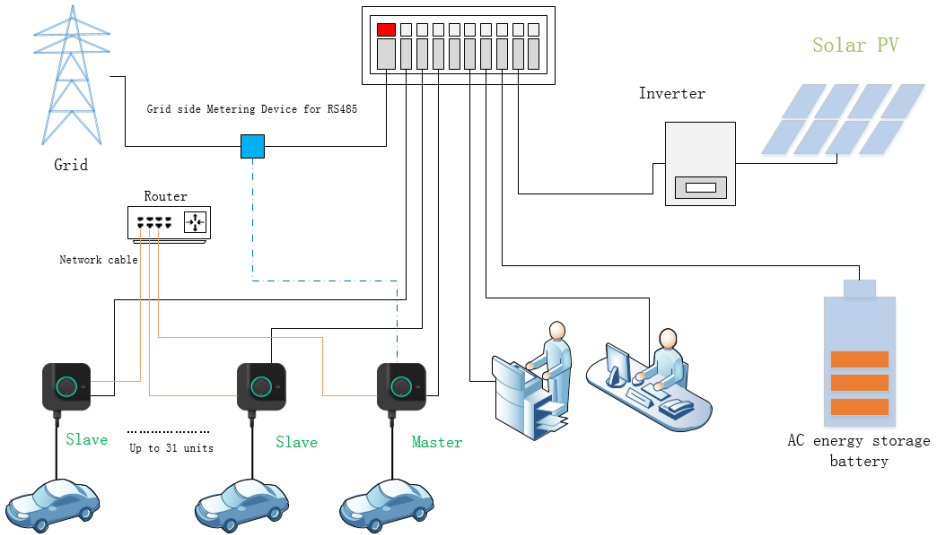
Maximum current that can be set by user: the maximum allowable current of the current system

Three-phase current imbalance: After opening, adjust the three phase currents to make them balance when conditions permit, make the imbalance rate is less than 15%.

11.4 Networking of Chargers

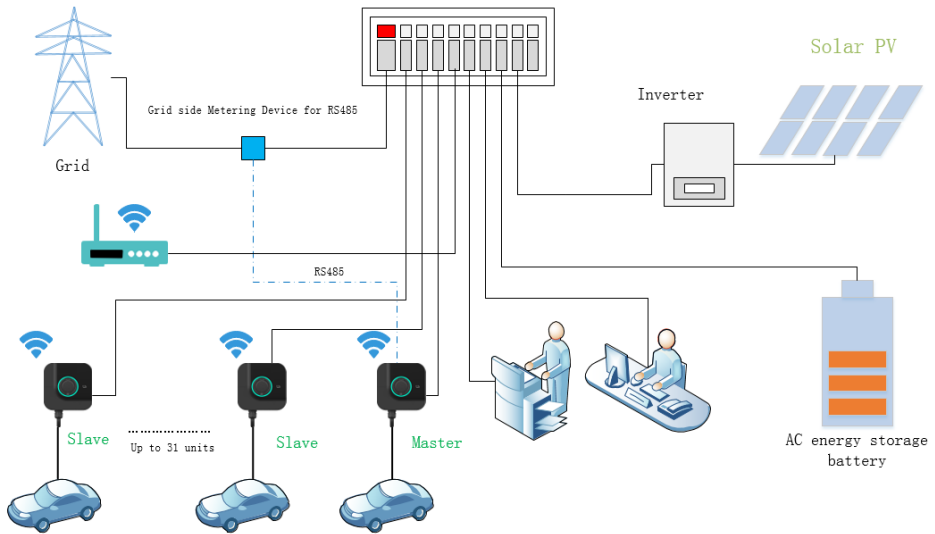
11.4.1 2 Chargers Networking (Ethernet connection)

When conduct networking of 2 chargers using Ethernet cables, you need to turn on the load balancing function on APP for both of them, Set the master charger and slave charger modes (1 master and 1 slave), and in the load balancing interface, set the "Networking Configuration " as Ethernet. Two chargers need to be set with different IP addresses in the same network segment, and then connect the two chargers directly with a network cable, and wait for 3min. If the APP interface does not prompt the networking failure, it means that networking of the 2 chargers is successfully.



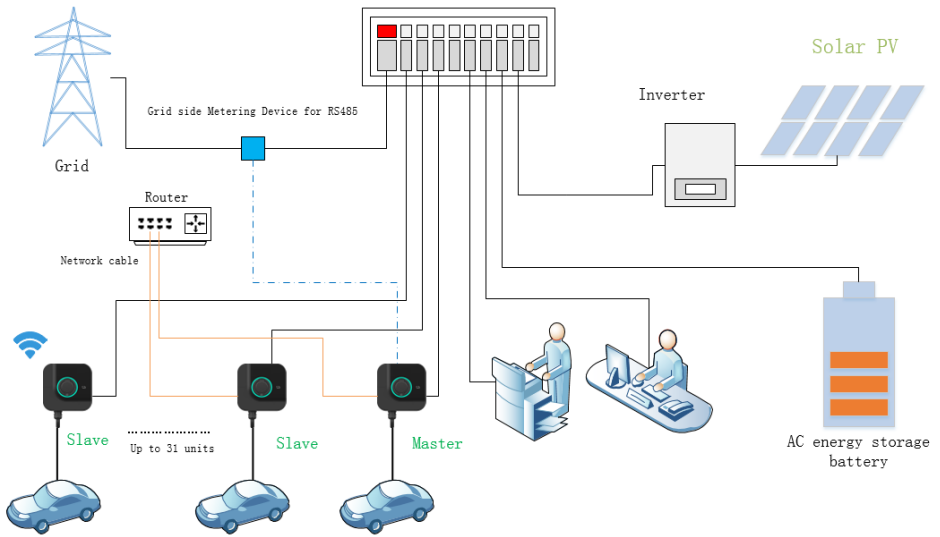
11.4.2 2 chargers Networking (WiFi connection)

When conduct networking of 2 chargers through WiFi (routers must be equipped), turn on the load balancing function on the APP for both of them, set the master charger and slave charger modes (1 master and 1 slave), and in the load balancing interface, set the "Networking Configuration" as WiFi. In the APP load balancing interface, input the same WiFi name and WiFi password for the 2 chargers, and wait for 3min. If the APP interface does not prompt the networking failure, it means that networking of the 2 chargers is successfully.



11.4.3 Multiple chargers Networking

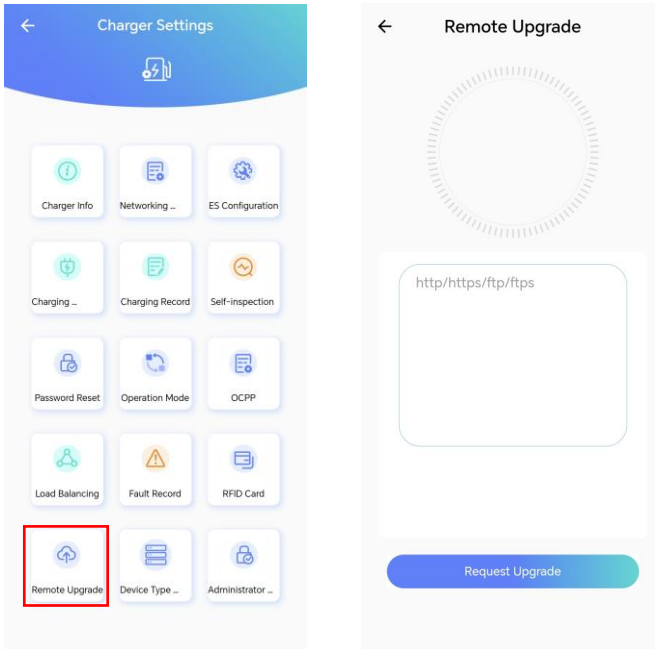
When conduct networking of multiple chargers through WiFi or using network cable (router must be equipped, and in case of networking with network cable, it can also be equipped with switchboard). Turn on the load balancing function on APP for all of the chargers, set master charger and slave charger modes (1 master and multiple slaves), and in the load balancing interface, set "Networking Configuration", both of WiFi or Ethernet are allowed. When setting WiFi, WiFi name and WiFi password must be the same. When setting Ethernet, ensure that in the same network segment, there are different IP addresses, and wait for 3min. If the APP interface does not prompt networking failure, it means that networking of the chargers is successfully.



12. Upgrade of the system

12.1 Local APP upgrade

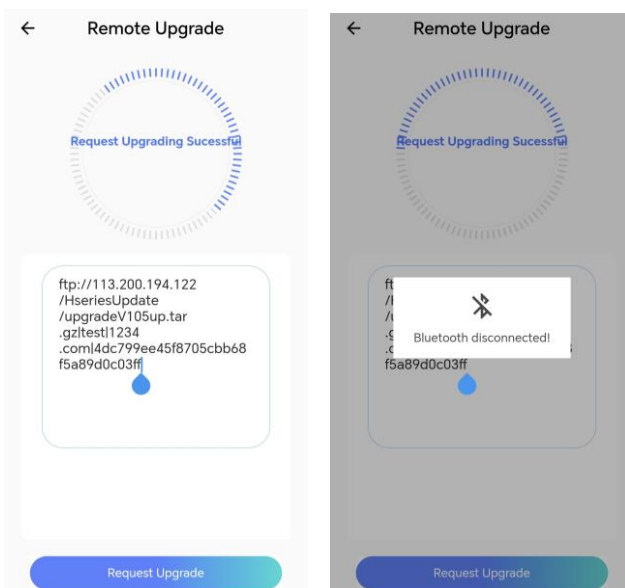
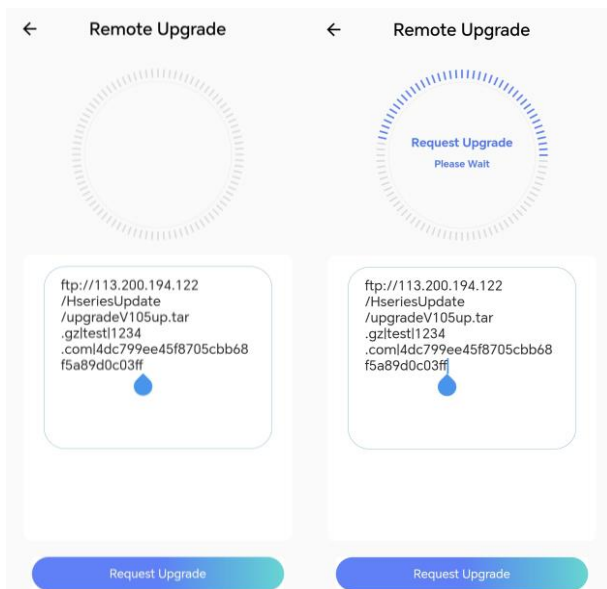
12.1.1 Connect the charger to the network through Ethernet (WiFi or 4G), open the mobile APP, and under the administrator mode, enter the remote upgrade interface, as shown in the following figure:



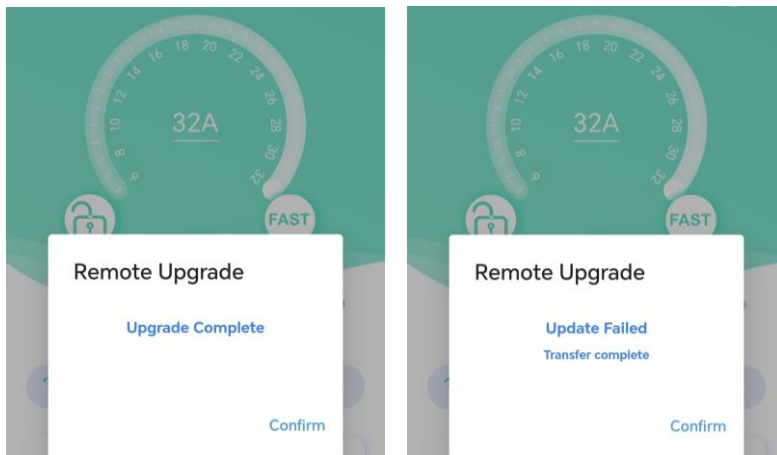
12.1.2 Copy the "URL" link of the upgrade pack to the upgrade column, for example, copy the following upgrade link to the upgrade column:

ftp://113.200.194.122/HseriesUpdate/upgradeV105up.tar.gz|test|1234.com|4dc799ee45f8705cbb68f5a89d0c03ff

Click "Request Upgrade" to request the upgrade, the upgrade process is as follows. After the upgrade is completed, the Charging station is restarted, and the APP is disconnected and reconnected.



12.1.4 After reconnecting and logging in to the APP, the interface of successful or failed upgrade is shown in the figure below:



12.2 Remote OCPP upgrade

12.2.1 Connect the charger to OCPP platform through Ethernet (WiFi or 4G);

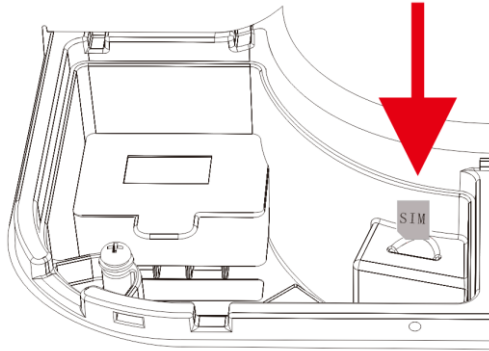
12.2.2 Send the "URL" of the upgrade pack to the OCPP platform, and OCPP will issue the upgrade pack to the charger, the upgrade is completed.

13, SIM Card Configuration

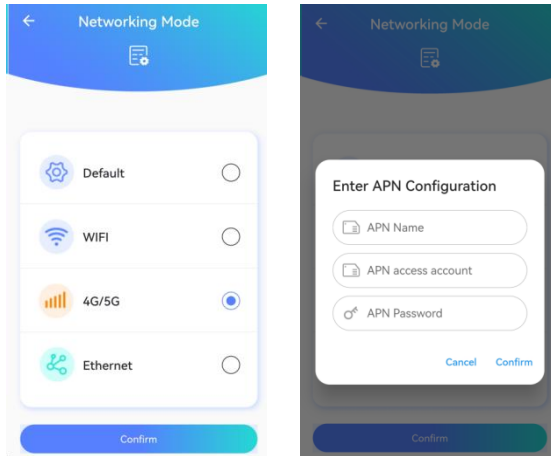
13.1 SIM Card Installation

When using 4G/5G networking, you need to install a SIM card on the charger.

The schematic diagram as follows:

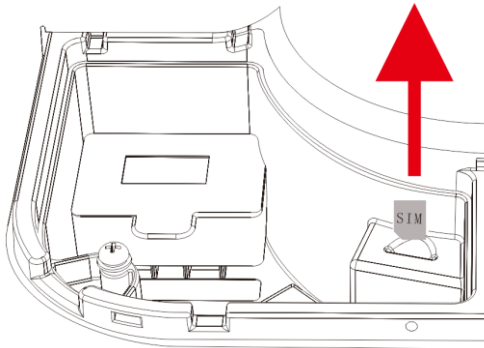


After the SIM card is installed in place, open the manufacturer APP, select 4G/5G in the APP network configuration interface, and configure the SIM card APN information, as shown in the following figure:



13.2 SIM card removal

When not using the 4G/5G networking, open the charger maintenance bin and take the SIM card out. When taking out the SIM card, press the SIM card first, and then take out the SIM card after the it pops up, as shown in the following figure:



14, Troubleshooting

Fault info	Reason	Solution
Abnormal Grounding Fault	The PE cable is not connected or there is a problem with the system settings.	When the PE cable is not connected, check whether the TT, IT, TN systems settings are set to the expected results. If the settings is successful, check whether the PE cable is connected.
Overvoltage Fault	Single phase: input voltage is detected to be greater than $276\text{VAC} \pm 3\text{VAC}$ for 5 seconds; Three phase: input voltage is detected to be greater than $460\text{VAC} \pm 3\text{VAC}$ for 5 seconds.	Single phase recovery logic: when the voltage is lower than $254 \pm 3\text{VAC}$, the state of plugging in will be recovered; Three phase recovery logic: when the voltage is lower than $450 \pm 3\text{VAC}$, the state of plugging in will be recovered.
Undervoltage Fault	Single phase: input voltage is lower than $154\text{VAC} \pm 3\text{VAC}$ for 5 seconds; Three phase: input voltage is lower than $340\text{VAC} \pm 3\text{VAC}$ for 5 seconds.	Single phase recovery logic: if the voltage is higher than $164 \pm 3\text{VAC}$, the state of plugging in will be recovered; Three phase recovery logic: if the voltage is higher than $350 \pm 3\text{VAC}$, the state of plugging in will be recovered.
Metering Communication Failure Fault	The communication between the master charger and the grid-side smart metering device fails	Check whether the communication address settings of the smart metering device in the APP are consistent with the communication address of the external smart metering device. If they are inconsistent, set the same in the APP.

Metering Failure Fault	Metering module chip reading incorrectly or metering chip failure.	Restart the charger 3 times in a row to see if the fault eliminated. If it is not eliminated, the metering chip is damaged, return the charger to factory for repair.
CP voltage abnormal Fault	When the charger detects that the CP signal is between -11~2V, it will report a fault.	Re-plug to check whether the CP voltage is normal, if not, return to the factory for repair.
Overcurrent Protection Fault	The charging current is greater than the preset current limit(1.1 times) and remains above 5 seconds.	After plug out, re-plug in to charge, and check whether there is a fault. If it does, it means that the current limit cannot be limited by the vehicle. It is recommended to set the current limit to the maximum(32A).
Relay Overtemperature Fault	The relay temperature is higher than the relay over-temperature protection threshold ($125 \pm 5^{\circ}\text{C}$).	Stop charging and wait for the relay to cool down before charging again.
Input Overtemperature Fault	The temperature of the power input terminal is higher than the over-temperature protection threshold of the power input terminal ($115 \pm 5^{\circ}\text{C}$.)	Check whether the power input wire is in poor contact or the power input wire is aging; Stop charging and wait for the power input terminal to cool down before charging again.

Socket overtemperature Fault	The temperature of the socket is higher than the over temperature protection threshold of the socket ($115 \pm 5^{\circ}\text{C}.$)	Stop charging and wait for the relay to cool down before charging again.
Leakage Protection Fault	It is detected that the AC leakage the $\text{DC} \geq 6\text{mA}$ (RCD is not applicable to TN-C system).	Restart the charger 3 times in a row to see if the fault is eliminated, if not, return it to the factory for repair.
Electronic Lock Protection Failure	After executing the electronic lock action command, it is detected that the state of the electronic lock is still the initial state, and the charger should report the electronic lock failure within 5s	Start or stop charging 3 times in a row to see if the fault is eliminated, if not, return to the factory for repair.
Power Failure Fault	The charger is powered off during the charging process.	Restart the charger to eliminate failure.
Abnormal Charging Circuit Fault	The relay is not closed when the start charging is issued or the relay is suddenly disconnected during the charging process.	Start charging 3 times in a row to check if the fault is eliminated, if not, return to the factory for repair.
LN Reverse Connection Fault	The input L-N line is reversed.	Exchanging the L-N Input Wiring
Phase Failure Fault	Three-phase input port open-phase access or single-phase are set as three-phase.	Check whether the charger type is set correctly in the APP settings. If correct, check whether the input port is missing phase. If not, check whether the three-phase voltage input is normal.

Leakage Fault Of PE Line	PE line leakage current $\geq 30\text{mA}$ or three-phase unbalanced N line voltage $\geq 70\text{V}$ and PE disconnection.	Restart the charger 3 times in a row to see if the fault is eliminated, if not, return it to the factory for repair.
Load Balancing Networking failure	The communication between the slave charger and the master charger failed.	Check whether the IP of the slave charger and master charger are in the same network segment.
Card Reader offline	Card reader does not communicate	Restart the charger 3 times in a row to see if the fault is eliminated, if not, return it to the factory for repair.
Backend Connection Abnormal	Not connected to the platform	Check the network configuration and whether the charging pile is connected to the network normally
Vehicle Leakage Alarm	Electric leakage of vehicle	Recover after unplugging the charging gun and making it normal
Plug Out With Load	Unplug the charging gun during charging	Automatic recovery after 10s

Importer: xxx

Address: xxx

WIFI(Only 2.4G wireless technology is supported):

Frequency: 2412MHz -2472MHz

Output Power: 802.11 b/g/n: <18.5dBm

BLE:

Frequency: 2402-2480MHZ

Output Power: 1.8dBm

RFID:

Frequency: 13.56MHZ

GSM/LTE:

Frequency:

GSM 850/900/1800/1900 MHz

LTE-FDD B1/B3/B5/B7/B8/B20/B28

LTE-TDD B38/B40/B41

Output Power:

GSM850: 33 dBm

EGSM900: 33 dBm

DCS1800: 30 dBm

PCS1900: 30 dBm

LTE-FDD B1/B3/B5/B7/B8/B20/B28: 23 dBm

LTE-TDD B38/B40/B41: 23 dBm

Download APP

Download the "LECharger" app on Google Play(Android) or App Store(ISO).

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