

## • Specification



**AC48A02ST**  
**U-Charging Pile Instruction Manual**

## AC48A02ST/U-Charging Pile Instruction Manual

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## **Safety Precautions**

1. Do not bring dangerous items such as inflammable, explosive, or combustible materials, chemicals, and combustible steam near charging piles.
2. Keep the head of the charging gun clean and dry. If there is any dirt, please wipe it with a clean dry cloth. Do not touch the charging refill with your hand when it is energized.
3. Do not use charging piles in case of broken charging guns or charging cables, cracks, exposed wires, etc. If anything above is found, please contact the staff in time.
4. Do not disassemble, repair and modify charging piles without permission. If there is any need for maintenance and modification, please contact the staff. Improper operation may cause equipment damage and power leakage.
5. If there is any abnormal situation during use, please immediately press the emergency button and cut off the power supply.
6. During the charging process, the vehicle is not allowed to drive and can only be charged when it is stationary. Please turn off the hybrid tram before charging.
7. In case of rain and thunder, please charge carefully.
8. Children should not approach and use charging piles during charging to avoid injury.
9. Please close the doors on both sides when charging to avoid electric shock.
10. During the charging process, the charging connector shall not be forcibly unplugged, which can avoid safety accidents caused by the ignition at the joints

## IMPORTANT SAFETY INSTRUCTIONS



**WARNING** – When using electric products, basic precautions should always be followed, including the following.

- a) Read all the instructions before using this product.
- b) This device should be supervised when used around children.
- c) Do not put fingers into the electric vehicle connector.
- d) Do not use this product if the flexible power cord or EV cable is frayed, had broken insulation, or any other signs of damage.
- e) Do not use this product if the enclosure or the EV connector is broken, cracked, open, or shows any other indication of damage.
- f) This charging pile cannot be dismantled, repaired or modified by the customer.
- g) To reduce the risk of fire, connect only to a circuit provided branch circuit over-current protection in accordance with the CSA C22.1-15 Canadian Electrical Code, Part 1 (Canada) or NOM-001-SEDE Electrical installation (utility) (Mexico) or ANSI/NFPA 70 National Electrical Code (USA).
- h) **WARNING**

### GROUNDING INSTRUCTIONS

This product must be connected to a grounded, metal, permanent wiring system, or an equipment-grounding conductor must be run with the circuit conductors and connected to the equipment grounding terminal or lead on the product.

- i) When any fault occurs, the product is prohibited to use, the user is prohibited to repair, must be sent to the after-sales maintenance or call the after-sales service for help.
- J) Risk of electric shock.



**SAVE THESE INSTRUCTIONS**

## CONCERNANT LA SÉCURITÉ CONSERVER CES



**WARNING: Des mesures de précautions de base devraient être utilisées avec tous les produits électriques, y compris les mesures indiquées ici.**

- a) Lisez toutes les instructions avant d'utiliser ce produit.
- b) Ce dispositif devrait être supervisé lorsqu'il est utilisé autour des enfants.
- c) Ne mettez pas les doigts dans le connecteur du véhicule électrique.
- d) N'employez pas ce produit si le cordon d'alimentation flexible ou le câble EV est effiloché, a l'isolation cassée, ou tout autre signe de dommages.
- e) N'utilisez pas ce produit si le boîtier ou le connecteur EV est cassé, fissuré, ouvert, ou montre toute autre indication de dommages.
- f) Cette pile de charge ne peut être démontée, réparée ou modifiée par le client.
- g) Pour réduire le risque d'incendie, branchez uniquement un circuit pourvu d'une protection contre les surintensités de circuit de branche conformément à la norme CSA C22.1-15 du Code canadien de l'électricité, partie 1 (Canada) ou à la norme NOM-001-SEDE Electrical installations (utility) (Mexique) ou à la norme ANSI/ NFPA 70 du Code National de l'électricité (Etats-Unis).
- h) **CONSIGNES DE MISE A LA TERRE** Ce produit doit être raccordé à un réseau de câblage mis à la terre, métallique et permanent, ou un conducteur de mise à la terre de l'appareil doit être ajouté au circuit et raccordé à la borne de terre de l'appareil ou au conducteur d'alimentation de l'appareil.
- i) Quand n'importe quel défaut se produit, le produit est interdit pour employer, l'utilisateur est interdit pour réparer, doit être envoyé à l'entretien après-vente ou appeler le service après-vente pour l'aide.
- J) Risque de choc électrique



**CONSERVER CES INSTRUCTIONS**

## For Both FCC & IC application:

This device complies with Part 15 of the FCC Rules / Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

*Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.*

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

### **MPE Requirements**

To satisfy FCC / IC RF exposure requirements, a separation distance of 20 cm or more should be maintained between the antenna of this device and persons during device operation.

To ensure compliance, operations at closer than this distance is not recommended.

*Les antennes installées doivent être situées de façon à ce que la population ne puisse y être exposée à une distance de moins de 20 cm. Installer les antennes de façon à ce que le personnel ne puisse approcher à 20 cm ou moins de la position centrale de l'antenne.*

*La FCC des états-unis stipule que cet appareil doit être en tout temps éloigné d'au moins 20 cm des personnes pendant son fonctionnement.*

## 1. Brief account

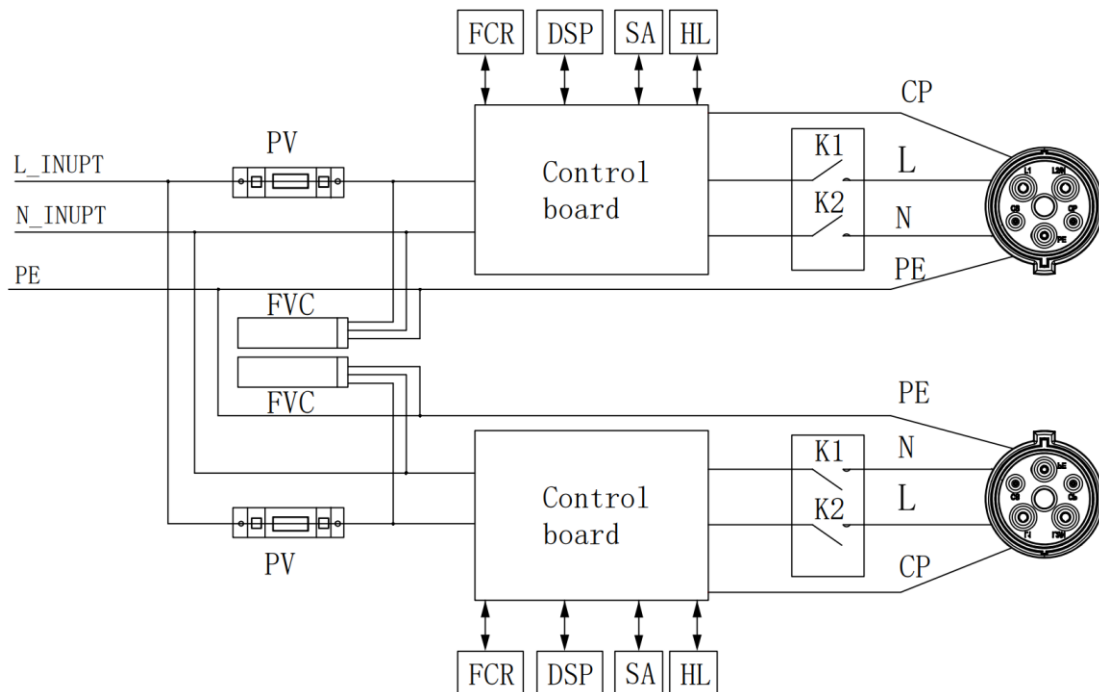
This product is a floor type AC charging pile, Mainly used for AC slow charging of electric vehicles, It integrates charging control, human-computer interaction control, communication, billing and metering functions. With protection class up to IP54, it can work safely indoors (If installed outdoors, chargers should to be equipped with an awning, if not, users can't charge cars when it rains). The power conversion unit of the charging pile follows the principle of modular design to meet the charging needs of electric vehicles with different capacities. It is the best choice for AC slow charging.

## 2. Equipment parameters

Specifications	Values
Maximum power of the product	11.5KW*2
Input Voltage	200-240VAC
Input Frequency	50/60Hz
Output voltage	200-240VAC
Single Maximum Output Current	48A
Double Maximum Output Current	48A*2
Charge Mode	Offline swipe card, operation online swipe card, operation online scan code
Communication Mode	Ethernet, WIFI, OCPP, 4G
Operating Temperature	-30~55°C
Relative Humidity	≤95%
Protection Class	TYPE 3R
Safety Design	The protection of leakage, over-voltage protection, over

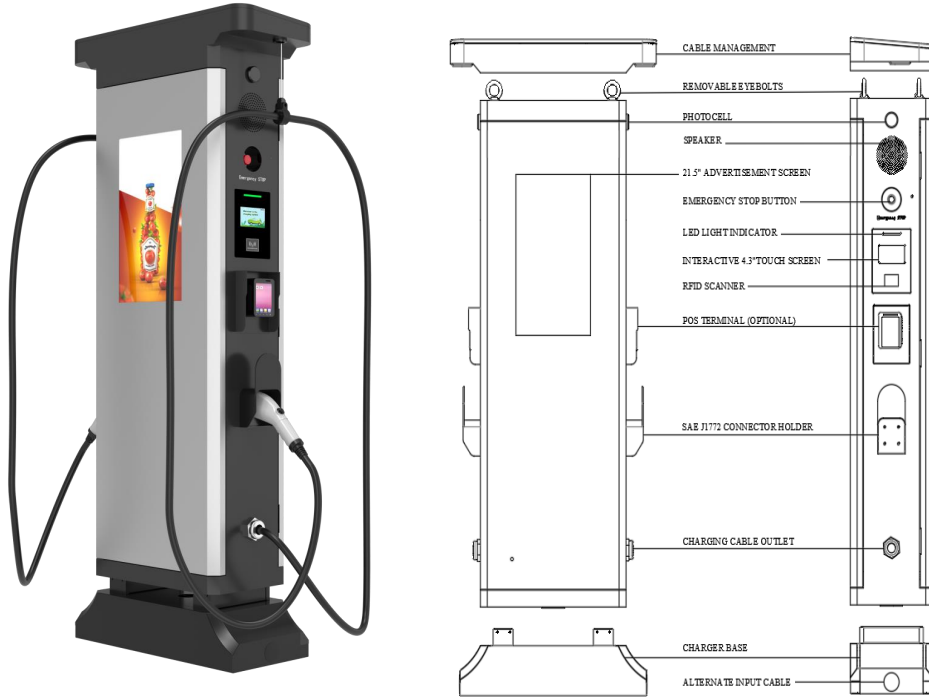
	current ,under-voltage protection, emergency stop protection, full stop charging protection, short circuit protection, Overtemperature protection
Installation Mode	Floor-type
Interfaces Count	Two (the line is 5 meters) CCS
Size	680 x 300 x 1710 mm
operating environment	Outdoor ,Indoor
Operating occasion	Residential charging, commercial charging

### 3. Schematic diagram



### 4. Shape Model Diagram





**5.Dimension instructions of foundation installation**

**5.1 Tools and Materials Required**

Recommended Tools for Installation

Type	Description
Stanley screwdriver	61-851-23 (8mm*300mm)
Stanley brand adjustable wrench	pieces 6.3MM metric machine set STMT82672-23
Socket screwdriver	No. 8, 10, 17 and 19
Electrical tape	Black / 15mm (0.6") Width
Ac input cable	6AWG(13.3mm <sup>2</sup> )*3
Stanley brand electric drill	One hammer drill
Percussion drill bit	Diameter φ12 one

Current drain	2P 63A (Leakage switch)
Stanley brand wire cutters	single
Stanley brand needle nose pliers	single

5.2 The pile installation needs to be surrounded by an operating space of not less than 1 meter.

5.3 Charging piles must be installed on customized concrete.

5.4 The height of concrete installation should be 200MM above the horizontal ground and the vertical inclination of installation should not exceed 5 degrees. Drill  $\phi 13$  holes in the cement base according to the drawing spacing and install M10 expansion screws.

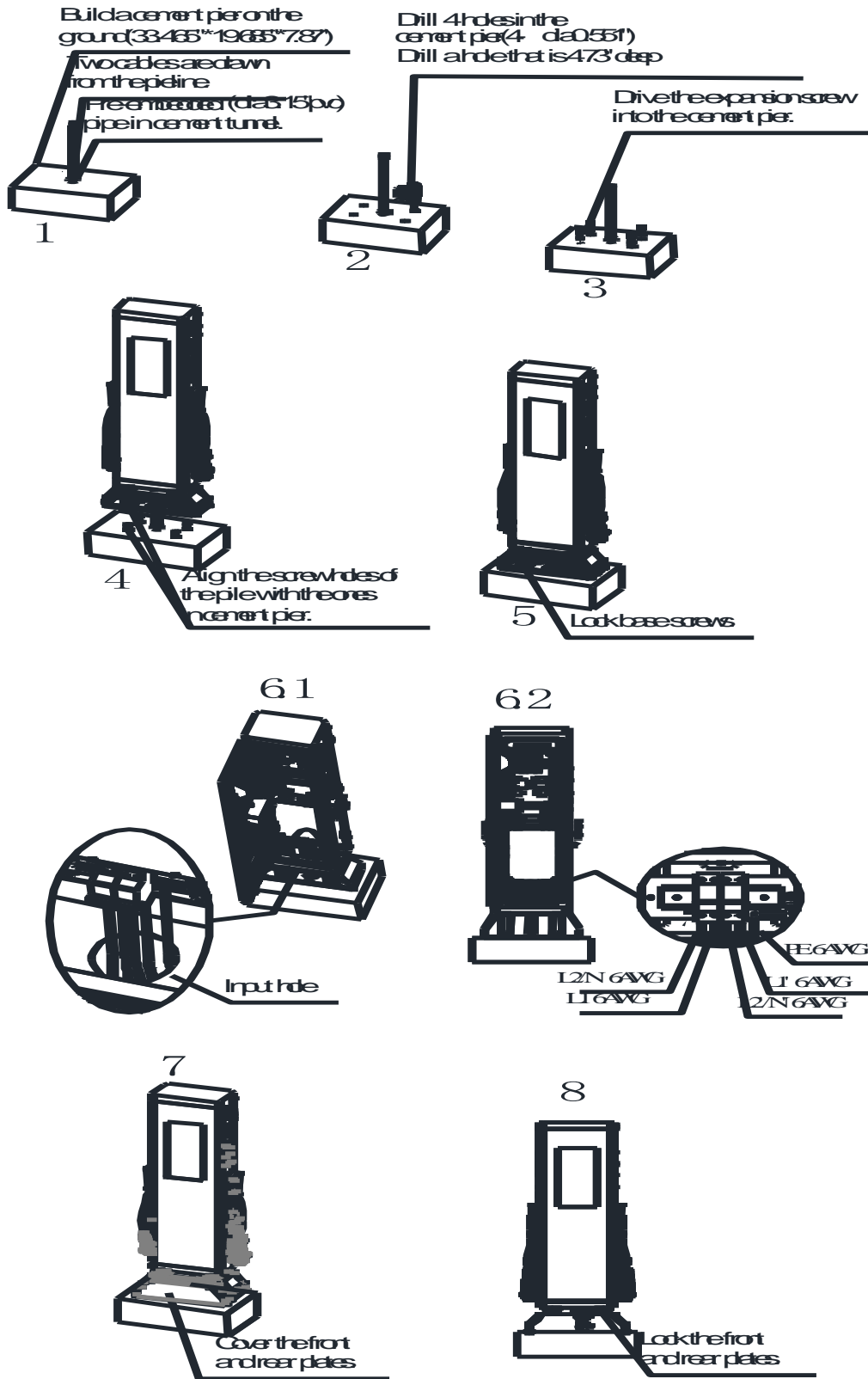
5.5 Installation method: Place the body into the corresponding hole on the base and tighten the screws.

5.6 The charging pile and cement base should have reliable grounding connection, the grounding resistance must be less than  $4\Omega$ .

5.7 Input Device Requirements:

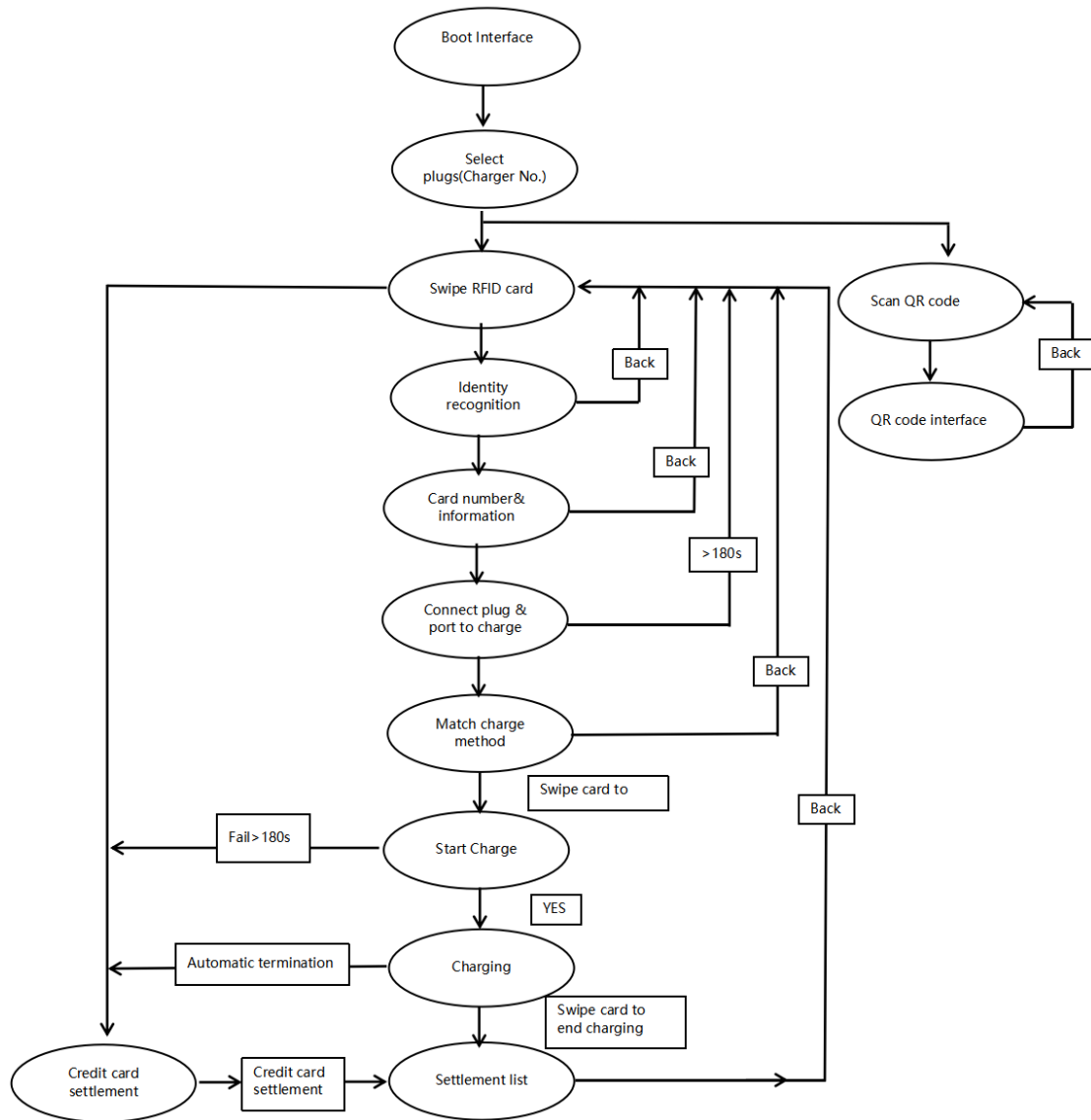
- a. Cable: 6AWG(13.3mm<sup>2</sup>)\*3
- b. Power distribution: 63A/2p

5.8 Rat control measures must be taken inside the pile body.



## 6. Charging operation

### 6.1 Charging operation flowchart


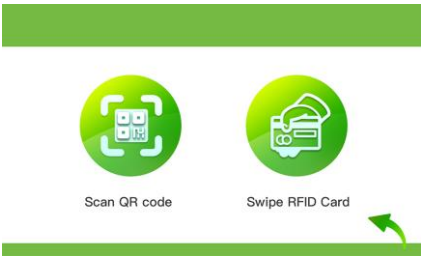



## 6.2 Charging Mode Startup operation interface

This series of charging machine has two charging startup modes: swiping card(online

card swiping/ offline card swiping) and scanning QR code. Specific operation examples are as follows:

a. Charging by swiping card(online card swiping/ offline card swiping)

<p>Click on the middle position of the screen to enter the charging method selection interface.</p>
 A screenshot of a mobile application interface. At the top right, there is a 'Language' dropdown menu. The main text reads 'Welcome to the charging system' in bold green font. Below the text is an illustration of a green electric car parked on a grassy area with some plants. The background is a light blue sky with clouds.
<p>Click on the card reading charging method and select the card swiping charging mode.</p>
 A screenshot of a mobile application interface showing two circular icons. The left icon is labeled 'Scan QR code' and the right icon is labeled 'Swipe RFID Card'. A green arrow points to the 'Swipe RFID Card' icon. The background is white with green accents at the top and bottom.
<p>Enter the waiting card swiping to start charging interface.</p>
 A screenshot of a mobile application interface. The text 'Waiting To Swipe The Card' is centered at the top. Below the text is an illustration of a hand swiping a card over a charging station, with curved lines representing the magnetic field. A green arrow points to the bottom right corner of the screen.
<p>Swipe card successfully and enter the charging interface</p>

Charging Amount:  \$

Voltage:  V/ac

Current:  A

Electric Quantity:  kW-h

Charging Duration:  Min

Swipe the card again to stop charging and enter the settlement interface.

Card No.:

Account Balance:  \$

Order Amount:  \$

Charging Capacity:  kW-h


Charging Duration:  Min

Prompt:

**b. Scan QR code for charging mode**

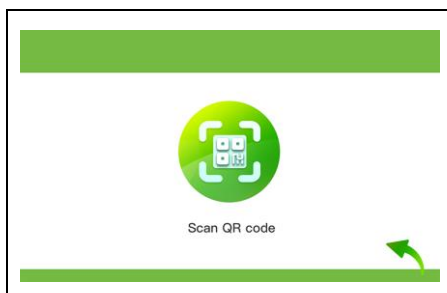
Scan the QR code on the pile directly with APP.

Click on the middle position of the screen to enter the charging method selection interface.



The image shows a digital screen with a light blue background. At the top right, there is a 'Language' dropdown menu. The main text reads 'Welcome to the charging system' in a bold, green font. Below the text is a stylized illustration of a green and blue electric car parked on a green hill with some foliage. The car is facing right.

Click on scan code to charge, wait for the user to start using the APP scan code.



The APP successfully scanned the code and entered the charging interface.


A screenshot of a mobile application interface for selecting charging parameters. It features a green header bar at the top. Below the header, there are five rows of input fields, each with a label and a unit: "Charging Amount: [input] \$", "Voltage: [input] V/ac", "Current: [input] A", "Electric Quantity: [input] kW-h", and "Charging Duration: [input] Min". The background is white.

Users use the app to remotely stop charging and enter the settlement interface.

A screenshot of a mobile application interface for settlement. It features a green header bar at the top. Below the header, there are five rows of input fields with labels and units: "Card No.: [input]", "Account Balance: [input] \$", "Order Amount: [input] \$", "Charging Capacity: [input] kW-h", and "Charging Duration: [input] Min". At the bottom, there is a "Prompt: [input] Confirm" button. The background is white.

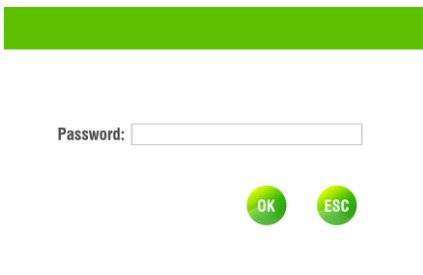
### c. Password charging method

Click on the middle position of the screen to enter the charging method selection interface.



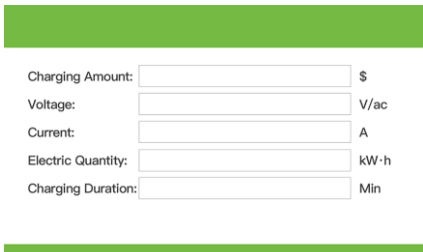
The image shows a welcome screen for a charging system. At the top right, there is a 'Language' dropdown menu. The main text reads 'Welcome to the charging system' in a bold, green font. Below the text is a stylized illustration of a green electric car parked on a grassy area with some plants. The background is a light blue sky with clouds.

After setting the password charging configuration, the user clicks on the screen and enters the user password.



The image shows a password entry screen. At the top, there is a solid green horizontal bar. Below it, the text 'Password:' is followed by a white input field. At the bottom, there are two green circular buttons labeled 'OK' and 'ESC'.

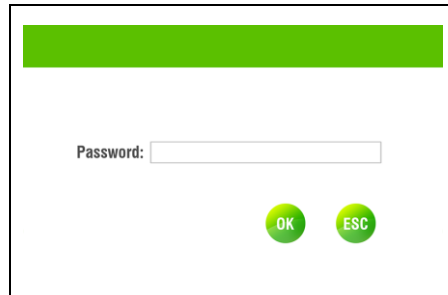
The user password has been successfully entered and enters the charging interface.



The image shows a charging configuration screen. At the top, there is a solid green horizontal bar. Below it, there are five rows of input fields, each with a label and a unit: 'Charging Amount: \$', 'Voltage: V/ac', 'Current: A', 'Electric Quantity: kW·h', and 'Charging Duration: Min'. At the bottom, there is another solid green horizontal bar.

When the user is charging with a password, click on the screen and the password box will pop up. Enter the user password to enter the settlement interface.

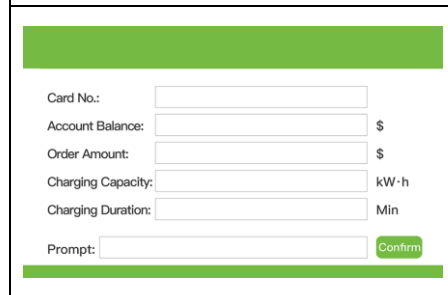




Password:

OK ESC

If the user password is entered correctly, the charging is completed.



Card No.:

Account Balance:  \$

Order Amount:  \$


Charging Capacity:  kW·h

Charging Duration:  Min

Prompt:

### 6.3 Process for Setting Parameters


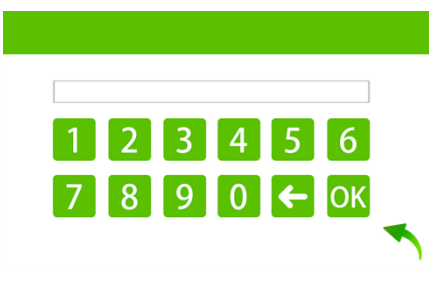
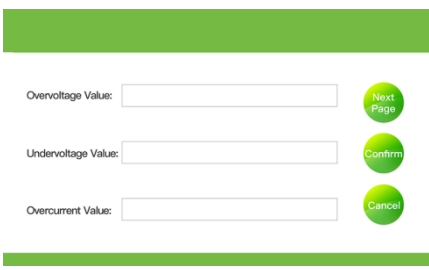

Click the lower left corner of the screen continuously to jump to the password input interface.



Language ▾

- English
- 中文
- Français
- Español

Enter the device parameter interface.

 <p>The screen displays a green gear icon with a white 'P' inside, labeled 'Parameter'. Below the icon is the text 'Parameter' and 'srceen:800*480_2023.07.10'. A green arrow points to the right.</p>
<p>Enter a 3-digit password ***</p>
 <p>The screen shows a password input field with a green border. Below it is a numeric keypad with buttons for digits 1-9, 0, a back arrow, and 'OK'. A green arrow points to the right.</p>
<p>Input parameters for overvoltage protection, undervoltage protection, overcurrent protection, etc. of the device.</p>
 <p>The screen features three input fields: 'Overvoltage Value:', 'Undervoltage Value:', and 'Overcurrent Value:'. To the right of each field is a green circular button labeled 'Next Page', 'Confirm', and 'Cancel' respectively. A green arrow points to the right.</p>
<p>Users can configure the URL address, device station number, etc. of OCPP through this screen interface.</p>
 <p>The screen has two input fields: 'OCPP:' and 'Charger No:'. To the right of each field is a green circular button labeled 'Next Page', 'Confirm', and 'Cancel' respectively. A green arrow points to the right.</p>
<p>Users can select offline, 4G, WIFI</p>

communication, grounding, leakage and other protection functions on this screen. Click OK when you're done;

Offline:  4G:  Next Page

Leakage Protection:  Wi-Fi:  Confirm

Ground Protection:  Change Password Cancel

Users can select the AC single-phase/three-phase, maximum current coefficient, etc. of the device on this interface.

Single Phase/Three Phase:  Next Page

Rated Current:  Confirm

Cancel

Users can choose the charging mode of the device on this interface, which includes: plug and play charging, APP scanning, RFID card swiping, password charging, etc.

Mode Selection

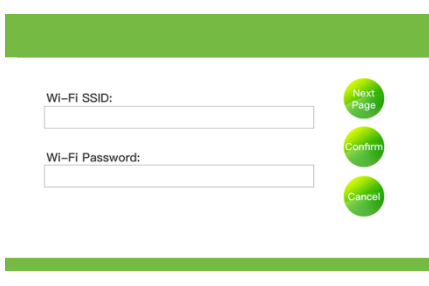

Plug-n-Charge:  Next Page

App Enabled:  Confirm

Standard Charging:  Cancel

Password Charging:

Manually enter the WIFI name and password for the device connection.

 The image shows a digital interface for Wi-Fi configuration. It features a green header bar at the top. Below it, there are two input fields: 'Wi-Fi SSID:' and 'Wi-Fi Password:'. To the right of these fields are three circular buttons: 'Next Page', 'Confirm', and 'Cancel', all in green.	
After setting the parameters, click Save to return to the first interface	
 The image shows a 'Welcome to the charging system' screen. It has a light blue background with a green car illustration at the bottom. The text 'Welcome to the charging system' is displayed in green. In the top right corner, there is a 'Language' dropdown menu.	

## 7.Operation procedures and the use of emergency stop switch

### 7.1Operating procedures

1. Open the hatch cover and charging socket protective cover on the vehicle after parking it in the charging station space.
2. Connect the car socket and the charging station plug.
3. Choose the appropriate mode (swipe card/ scan QR code), Save and then begin charging in accordance with the instructions above.
4. The combined instrument will display the pertinent parameters as soon as the charging indication turns on.
5. When the vehicle is fully charged, press and hold the unlock button to pull out the plug , insert it into the holder of the pillar.
6. Close the hatch cover and protective cover of the socket, end charging.

## **7.2 Use of emergency stop switch**

1. In case of fire or electric shock, press the emergency stop switch immediately;
2. If the machine leaks electricity, please press the emergency stop switch immediately;
3. When the emergency stop switch is pressed in the charging state, the charging will stop immediately, the circuit breaker on the output side will be disconnected, and the fault light will turn on;
4. In case of pile failure, unable to stop charging, internal circuit short circuit and other abnormal conditions, please immediately press the emergency stop switch;
5. When the emergency stop switch is pressed in the non-charging state, the fault light will be on and the display screen will jump to the fault interface;
6. When the critical situation is relieved, please rotate the emergency stop switch, otherwise the charging cannot continue

### **Warm reminders:**

1. Please read the operation instructions and precautions carefully.
2. Before charging, check whether the charging gun is firmly in contact with the charging interface and whether the indicator works well.
3. During the charging process, do not forcibly pull out the charging connector. Forcibly pulling out the charging connector may cause fire at the connector, resulting in safety accidents.
4. To stop charging in advance, press the stop button and hold it for 5-10 seconds before pulling out the charging gun.
5. If any safety accident occurs during the charging process, such as abnormal sound or short circuit, press the emergency stop button immediately, disconnect all power supplies, and contact the on-site personnel.

## **8.0 User maintenance instructions**

### **8.1 Instructions**

The maintenance of AC charging pile is relatively simple. During operation, attention should be paid to ventilation and heat dissipation and keep the environment clean. There should be no explosive dangerous medium in the air, and no gas enough to corrode metal and destroy insulation. The device should be placed in a stable place without violent vibration or turbulence. Before the device is put into operation for the first time after transportation, or when it is put into operation again after a long-time outage, the whole machine should be checked. In addition to checking the wiring according to the drawings, it is also necessary to check whether the components are loose or fall off, whether the connection is strong, whether the contact is good due to transportation and other reasons. After the inspection, carry out the electrification test. Dust removal and cleaning should be carried out regularly according to the degree of ambient air. When cleaning, all power supplies should be cut off, and the surface and internal components of the device and the connection of wires should be cleaned with compressors, vacuum cleaners, or small brushes. Do not use any cleaning agent or damp rags when cleaning the internal components of the device, including the circuit board.

### **8.2 Maintenance**

According to the need to clean the pile inside and outside, regularly check wiring terminals, wiring cables, contactors, switching switches, insurance for excessive dust and dirt. Check whether the insulation of terminals and wiring cables is strong, check the contact force of contactors, contacts and insurance, check whether the jumper cap of the circuit board is loose, whether the component is strong, and the control function and state switch of each module, to avoid the hidden trouble caused by failure.

## **9. Instructions of packing, handling, transportation and storage**

9.1 Package: 11.5KW charging pile product weight 115KG(including outer box ,

Dimensions: 750\*575\*1870mm;

9.2 The transportation can be by car, vessel or aircraft.

9.3 During transportation, attention should be paid to sunscreen and civilized loading and unloading, avoiding violent vibration and impact.

9.4 Products stored in Class I environment and stored for more than 6 months are recommended to be re-tested and can only be used if they are qualified.