



**Haipawa 240~360 US standard  
all-in-one DC charging station  
installation manual and User manual**

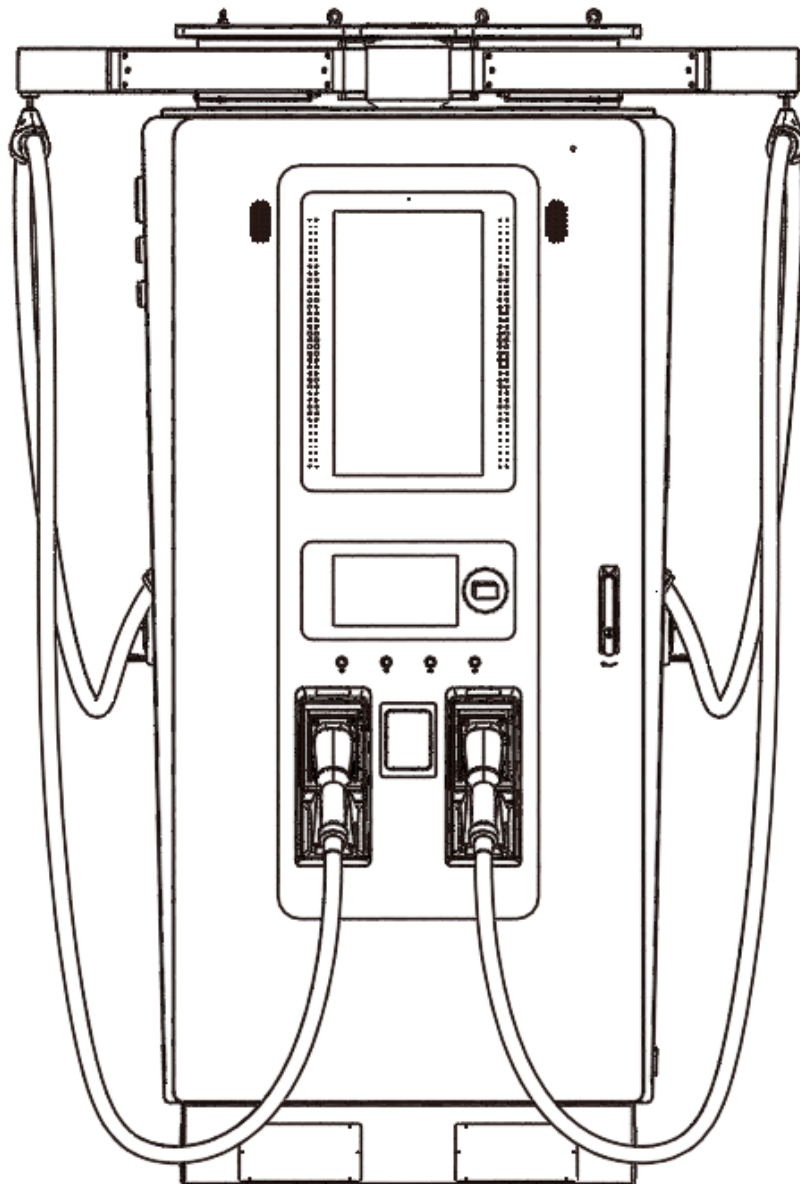
## Legal Notices

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## 1. General

### 1.1 Purpose of the document

The purpose of this document is to guide the construction personnel to complete the on-site installation of the Haipawa 240~360 US standard all-in-one DC charging station.

### 1.2 Scope of application

#### 1.2.1 This manual applies to equipment types

Haipawa 240~360 US standard all-in-one DC charging station.

#### 1.2.2 This manual is suitable for the following groups of people

Haipawa 240~360 US standard all-in-one DC charging station installer.

### 1.3 Definition of relevant warning symbols








No.	Mark	Meaning
1		A "WARNING" sign indicates a hazard. Pay attention to procedures, practices, or incorrect execution that may result in personal injury or death. Actions following the WARNING mark should only be performed if the indicated conditions are fully understood and met.
2		A "CAUTION" sign indicates a hazard. Be aware of product damage or destruction that may result from operating procedures, experiments or incorrect execution, and operations following the "CAUTION" mark should only be performed when the indicated conditions are fully understood and met.
3		Indicates a burn hazard arising from hot areas or areas with high component temperatures
4		protective earth connection
5		AC current
6		Indicates that the described operations must be performed using employer-supplied clothing and/or personal protective equipment

Table 1 Definitions of related warning symbols

## 1.4 Safety Precautions

Before starting the operation, please read the operation instructions and precautions carefully to reduce accidents. The "Caution, Caution, Warning, Danger" items in the product and product manual do not represent all safety items that should be observed, but are only supplements to various operational safety precautions.

When operating the company's products and equipment, you must abide by the safety regulations of the relevant industry, and strictly abide by the relevant equipment precautions and special safety instructions provided by the company.



 Warning	This equipment is not intended for use in a residential environment and may not provide adequate protection for radio reception in such environments.
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### Safety instructions


The internal working voltage of the charging system is high and the current is large. In order to ensure personal safety, the following regulations should be observed at all times:

1. Only personnel who have received training and sufficient knowledge of charging systems may install charging systems. During installation, always follow the safety precautions at the end of the catalog and local safety regulations.
2. To work inside the charging system, make sure the charging system is not live. The mains input of the charging system must be disconnected.
4. Power distribution cables should be properly routed and protected to avoid accidental contact when operating power supply equipment.
5. It is strictly forbidden to wear it on the wrist during operation


### High pressure

 Danger	When the power supply system is running, some components have high voltage, direct contact or indirect contact with these components through non-insulating objects will bring fatal danger.
 Warning	Construction operations on high-voltage lines may cause fire or electric shock accidents. AC cables must be erected and routed in accordance with the local regulations and specifications. Only personnel qualified for high-voltage and alternating current operations can perform various high-voltage operations.

## TOOL


 Warning	This equipment is not intended for use in a residential environment and may not provide adequate protection for radio reception in such environments.
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## Thunderstorm


 Danger	It is strictly forbidden to use high voltage and alternating current in thunderstorm weather.
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During thunderstorms, strong electromagnetic fields are generated in the atmosphere. Therefore, in order to avoid lightning damage to the equipment, it is necessary to do a good grounding of the equipment in time.


## Static electricity

 Notice	The static electricity generated by the human body will damage the electrostatic sensitive components on the circuit board, such as large-scale integrated circuits (IC). Before touching the equipment, holding plug-in boards, circuit boards, IC chips, etc., you must wear an anti-static bracelet and ground the other end of the anti-static bracelet to prevent static electricity from damaging sensitive components.
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## Short circuit

 Danger	It is strictly forbidden to short-circuit the positive and negative poles of the power distribution system or short-circuit the non-grounded poles to the ground during operation. A short circuit will cause equipment burns and personal safety hazards.
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 When performing live work, the polarity of cables and interface terminals must be strictly checked.


 The power distribution operation space is compact, so please pay attention to select the operation space before any operation.

 Operation must use insulated tools.


 When operating with electricity, you must pay attention to keeping your hands, wrists, and arms in a tense state, so as to prevent accidents caused by too much movement of the tool or human body when the tool slips.

## Other


### Object sharp corner

 Warning	When carrying the equipment by hand, wear protective gloves to prevent cuts from sharp objects.
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### Power cable

 Notice	Before connecting the cables, verify that the cable labels are correct.
--	---

### Signal line

 Notice	Signal cables should be bundled separately from power cables, with a spacing of at least 15mm.
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## 1.5 Caution 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.



## 2. Preparations before installation







### 2.1 Environmental conditions

When selecting an installation site for charging equipment, the environmental conditions listed in the table below should be considered.

Environmental Conditions	Recommended Range
Ambient temperature	-30℃ ~ + 50℃, use with derating above 50℃
Altitude	≤2000m
Humidity	5%~95%RH, no condensation inside the product;
Dust	≤1mg/m <sup>3</sup>
Corrosive substances	Free from pollutants such as salt, acid, smoke, etc.
Shock	≤1.5mm/s
Insects, pests, vermin, termites	None
Mold	None
Damp	Rainproof

Table 2 Installation Environment Confirmation Form

### 2.2 Conventional construction tools

No.	Category	Name	Use	Picture
1	wire preparation tool	Electrician's knife	Peeling of insulating sheath	
2	tools for installation	wire stripper	Peeling of insulating layer	
3	tools for installation	Crimping Tool	Terminal crimp	
4	tools for installation	impact drill	Component tube clip installation	
5	tools for installation	Electric air pick machine	slotted	
6	tools for installation	Cutting Machine	Cut the tube	











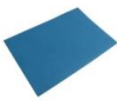

No.	Category	Name	Use	Picture
7	tools for installation	heat gun	Heat shrinking of insulating materials	
8	tools for installation	hot melt machine	Welded PE water pipe	
9	tools for installation	Allen key (full set)	Install and remove screws	
10	tools for installation	Open-end wrench (full set includes No. 13)	Install and remove the nut	
11	tools for installation	Angle Grinder	grinding of materials	
12	tools for installation	Phillips screwdriver (full set)	Remove and install screws	
13	measuring instrument	Laser level	Level measurement	
14	measuring instrument	level	Level measurement	
15	measuring instrument	multimeter	Measure voltage, current, etc.	
16	measuring instrument	Megohmmeter	Measuring insulation resistance	
17	assistive device	Insulating floor mat	Placing the disassembled parts	
18	Lifting tools	Manual crane	Equipment lifting	

Table 3 List of conventional construction tools

Note: The above tools need to be selected according to the actual situation on site.

## 2.3 Construction materials

### 2.3.1 Cables

Refer to the table below to select the corresponding terminals according to different wire diameters.

Wire Diameter	Terminal Model
6AWG (13.3mm <sup>2</sup> )	SC16-6/SC16-8
4AWG (21.15mm <sup>2</sup> )	SC25-6/SC25-8
3AWG (26.67mm <sup>2</sup> )	SC25-6/SC25-8
2AWG (33.62mm <sup>2</sup> )	SC35-8
1AWG (42.41mm <sup>2</sup> )	SC50-8
1/0AWG (53.49mm <sup>2</sup> )	SC50-8
2/0AWG (67.43mm <sup>2</sup> )	SC70-8/SC70-10
3/0AWG (85.01mm <sup>2</sup> )	SC95-8/SC95-10
4/0AWG (107.22mm <sup>2</sup> )	SC120-10/SC120-12

Table 4 Cable Diameter Comparison Terminal Table

### 2.3.2 Network cable

If you need to use the Ethernet communication function, it is recommended to use a shielded twisted-pair network cable (cat6a) and RJ45 crystal plug. The length of the network cable shall not exceed 75m. If it exceeds 75m, the customer needs to customize the construction plan according to the site conditions.

### 2.3.3 Other materials

Heat-shrinkable tubes, insulating tapes and other auxiliary materials required for making cables.

If the fuse is damaged, it is necessary to replace the model with the same specification, the fuse specification is 800A,AC1250V/DC1000V

## 2.4 Installer Requirements

- (1) Entering the construction site should abide by the construction site safety management regulations.
- (2) When entering the construction site, you must correctly wear a safety helmet (fasten the chin strap, the safety helmet is in good condition), do not wear unsafe clothing such as loose clothing and slippers, and are strictly prohibited from drinking to work and smoking on the construction site.
- (3) High-altitude workers must wear safety helmets, hang seat belts, wear non-slip shoes, and fasten labor tools.
- (4) If the construction site is dusty or there is painting work, protective masks must be worn.
- (5) Do not enter the hoisting area, below the vertical operation and other dangerous areas, and place objects to strike.
- (6) Try to stay away from various mechanical equipment and electrical circuits to prevent mechanical and electrical damage.
- (7) Those who use mobile power tools must master their use skills and precautions, wear insulating shoes and gloves as much as possible, and the metal shell must be grounded or zero-connected.
- (8) For temporary electricity use on site, the electrical box must be kept intact, and damaged electrical components must be replaced in time.
- (9) Rubber cables should be used for temporary on-site wires, plastic flower wires are prohibited, and wires are not allowed to be directly inserted into sockets.
- (10) Try to avoid live work.
- (11) When entering the foundation pit, roof and other marginal places and various openings, you must concentrate your energy to prevent falling from heights.
- (12) Pay attention to the ground environment conditions such as iron nails and steel bars, and prevent other injuries such as sticking, touching, hanging and falling.
- (13) Site construction protection facilities, safety signs, warning signs, etc. shall not be dismantled without authorization.
- (14) Strengthen the on-site maintenance of construction equipment, maintain the intact rate, and prohibit the operation with illness and overload operation.

## 2.5 Handover of construction drawings

After the installer arrives at the site, first ask the store staff to check the installation location drawings of the equipment, and check to confirm that the cables and cement foundations of each equipment meet the requirements.

## 2.6 Spacing requirements for equipment

### (1) Maintenance distance requirements

When the back or side of the charging pile to be installed is close to the wall or other obstacles, a certain maintenance distance needs to be reserved. Please refer to Figure 1 below for the installation distance of the base, and please refer to Figure 2 for the maintenance distance with the door open. The charging pile adopts left and right ventilation and heat dissipation, the air enters from the right and the air exits from the left, refer to Figure 3.

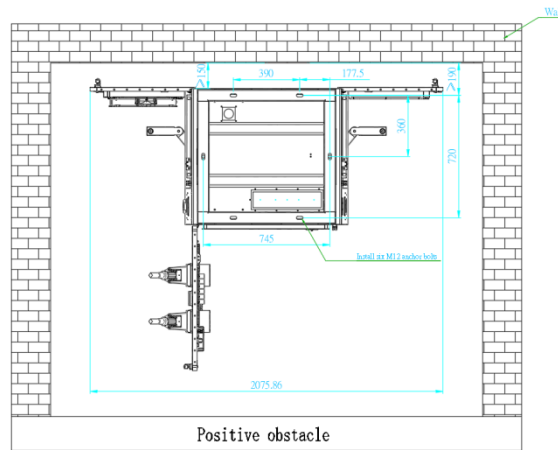


Figure 1 Base Installation Distance Diagram

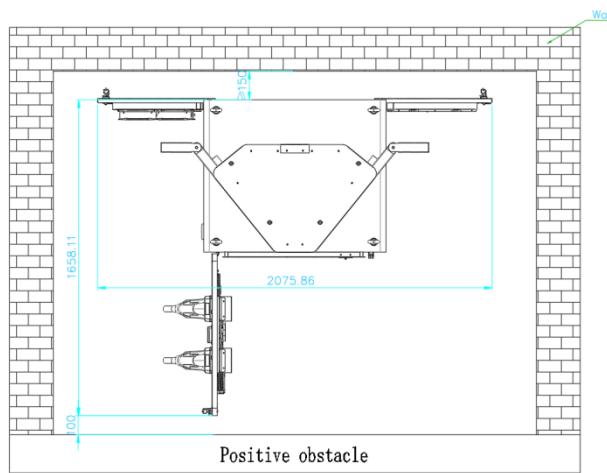


Figure 2 Maintenance distance map

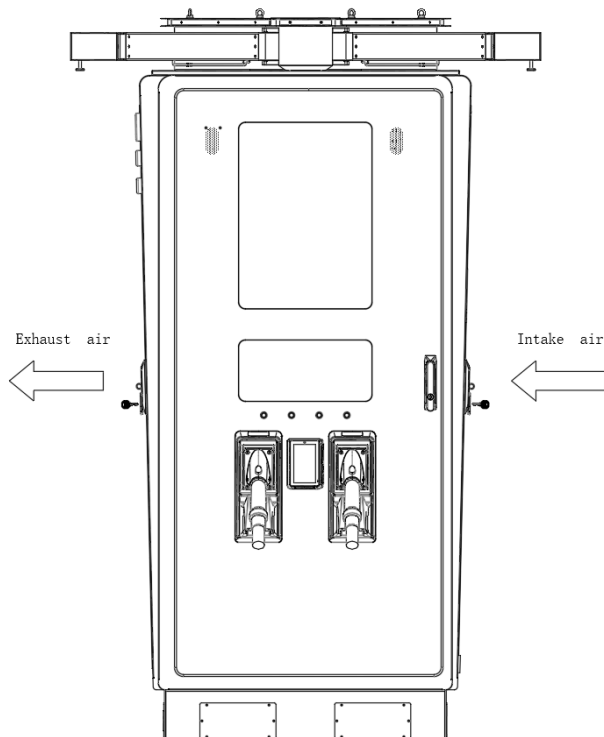


Figure 3 Schematic diagram of wind direction

## (2) Parking space requirements

When the charging station is installed in the middle of a parking space or back-to-back parking spaces, it is recommended to leave a space of 1200mm between the car wheel block and the charging station to facilitate the use of the charging pile, as shown in Figure 4:

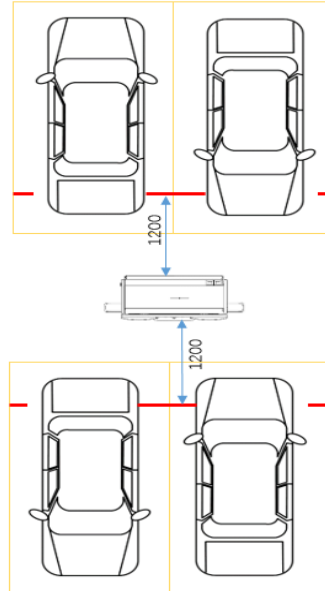


Figure 4 Parking distance requirements

## 2.7 Power cable recommendation

Haipawa 240~360 US standard all-in-one DC charging station pile recommends using cables with a voltage level of 480V or higher, Use Copper Conductors Only, and the cables should reach a temperature resistance level of at least 90°C. The installer confirms whether shielding is required according to local laws or regulations. If there is a shielding layer, both ends of the shielding network must be connected to the PE wire.

## 2.8 Requirements for cement foundation

The cement foundation needs to be poured before the installation of the charging pile. The size of the cement foundation must be greater than W1015mm\*D990mm\*H600mm, and the depth of the foundation is 600mm. The design of the cement foundation can be adjusted according to the user's requirements and the actual situation on site. The schematic diagram of the cement foundation is shown in Figure 5, and the basic inspection requirements are as follows:

- (1) Pay attention to the correction level when pouring the foundation.
- (2) The foundation installation is higher than the ground level, and necessary maintenance passages are reserved on site depending on the specific space.
- (3) The drainage outlet on the foundation surface is slightly inclined to avoid water accumulation.
- (4) The foundation is filled with C25 concrete.
- (5) On the basis, reserve a wire outlet hole with a diameter of not less than 200mm, and adjust it according to the actual wire diameter. As shown in Figure 4.
- (6) After the foundation is completed, use a level to test the flatness.
- (7) Six M12 screw rods are used for fixed pre-embedding, which are pre-embedded into the interior of the concrete foundation according to the positioning of the drawing, and 30-40mm threads on the upper surface of the concrete foundation are exposed.

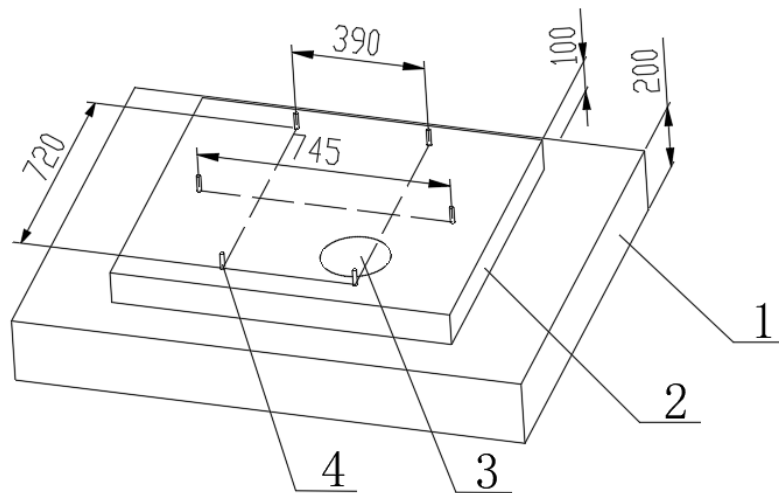


Figure5: Schematic diagram of the cement base of the charging station

1	Ground	3	Cable Outlet
2	Cement Base	4	M12 Threaded Rod

## 2.9 Current and distribution capacity requirements

Please confirm the relevant information requirements of the distribution network according to the table below, and proceed according to the recommended circuit breaker selection requirements

Charging station specification	Distribution grid voltage	Wiring form	Grid capacity	Rated current
240kW (dual power supply)	480Vac,50/60Hz	L1+L2+L3+PE	$\geq 280\text{kVA}$	152A*2
360kW (dual power supply)	480Vac,50/60Hz	L1+L2+L3+PE	$\geq 425\text{kVA}$	228A*2

Circuit breaker selection	Remark
Ue=480V, $\geq 200\text{A}$ , $I_{cu} \geq I_{cs} \geq 50\text{kA}$ , 3P	Two power input cables
Ue=480V, $\geq 300\text{A}$ , $I_{cu} \geq I_{cs} \geq 50\text{kA}$ , 3P	Two power input cables



## 3 Installation Steps

### 3.1 Unpacking and unpacking inspection

#### 3.1.1 Equipment packing list

Name	Package	Configure	random document	Parts List
Device body	wooden box	Standard	<ul style="list-style-type: none"> <li>- certificate</li> <li>- Certificate of Qualification-Factory inspection report</li> <li>-Installation manual (electronic version)</li> </ul>	<ul style="list-style-type: none"> <li>- key</li> <li>- RFID card</li> <li>- Module solid</li> <li>- screw</li> <li>- U disk</li> <li>- print line</li> </ul>
Rectifier module	Carton	Standard		The quantity will be configured according to the actual power

**Table 5** Equipment packing list

#### 3.1.2 Unpacking inspection

- (1) Check the packing list number and equipment quantity.
- (2) Check the equipment nameplate information.
- (3) Check whether the random files are complete.
- (4) Check whether the spare parts and accessories are complete.
- (5) Check the factory inspection report and certificate of conformity.
- (6) Check whether the appearance of the equipment is good, and whether there is deformation, bumps, stains, etc.

#### 3.1.3 Unpacking precautions

- (1) The installer shall unpack in the presence of the owner, and fill in the unpacking record in detail. See Appendix 1 for the unpacking record sheet.
- (2) After unpacking and checking, please ask the owner's representative to confirm and sign on the equipment unpacking record sheet.
- (3) If problems are found during the unpacking and acceptance of the equipment, in addition to making records, wait for the negotiation between the owner and the supplier.

#### 3.1.4 Product parts introduction

- (1) The components of the product facade are shown in Figure 6 and Figure 7
- (2) The internal structure diagram of the product is shown in Figure 8

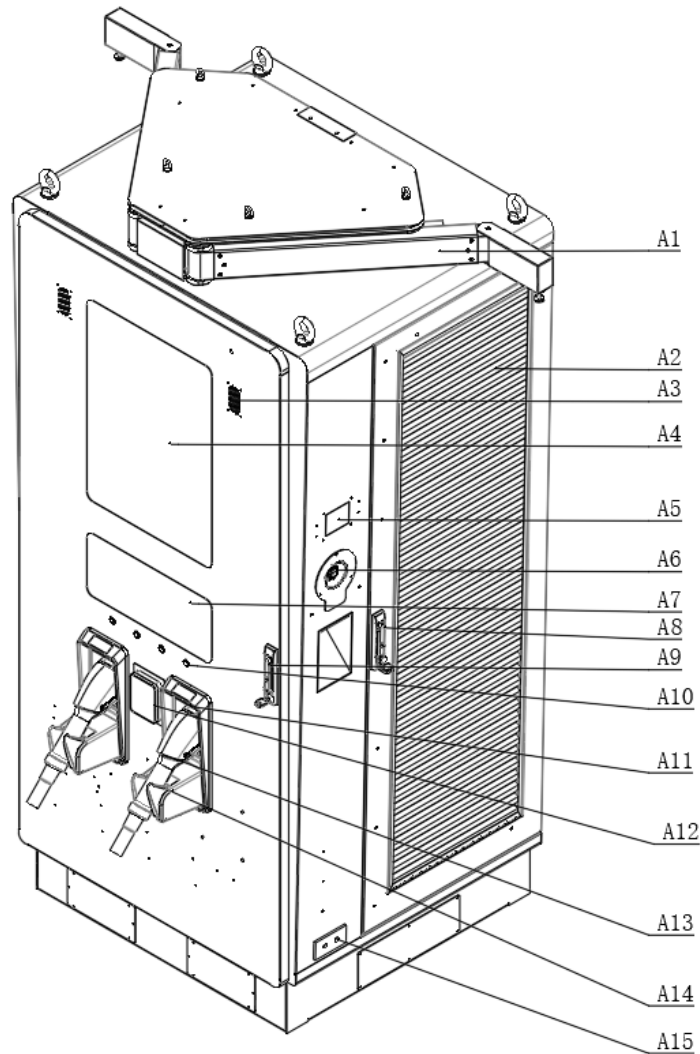


Figure 6 Front view of components

A1	Swing Arm Assembly*	A2	Louvre	A3	Loudspeaker	A4	Advertising screen(21.5")
A5	DC meter window	A6	Emergency button	A7	Touch screen (10.1")	A8	Left door lock
A9	Front door lock	A10	Reserved button	A11	Plug holder	A12	POS machine*
A13	Plug	A14	Plug cable	A15	PE		

Note: A1, A12, are optional.

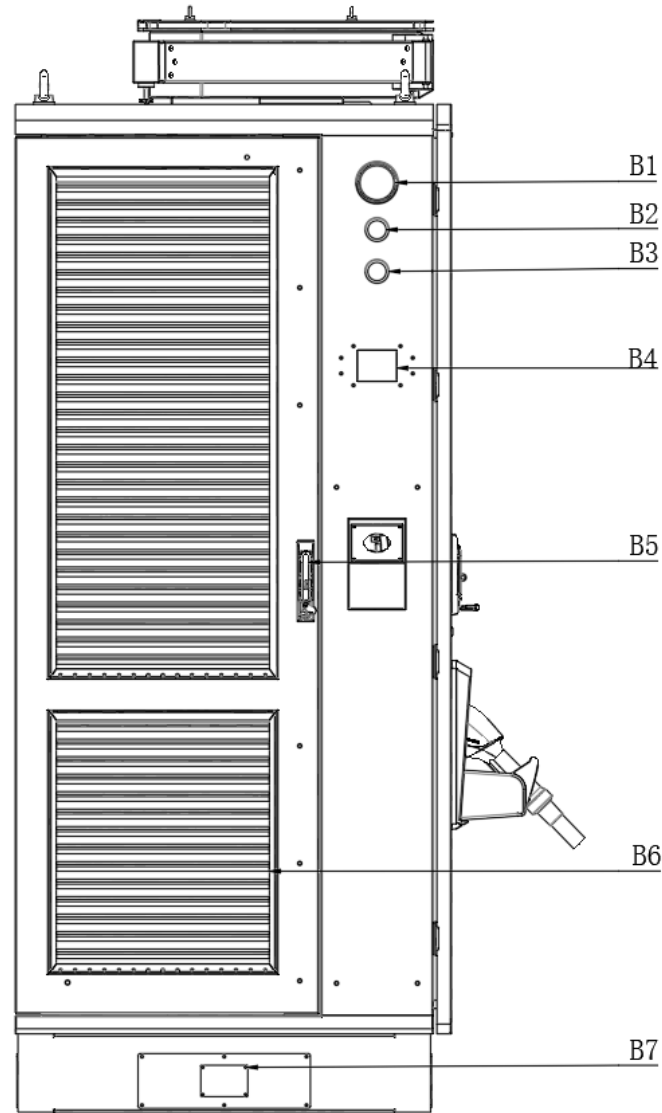


Figure 7 Side member view

B1	4G Module antenna	B2	Advertising Screen Antenna	B3	POS Antenna	B4	DC meter window
B5	Right Door Lock	B6	Louvre	B7	Nameplate		

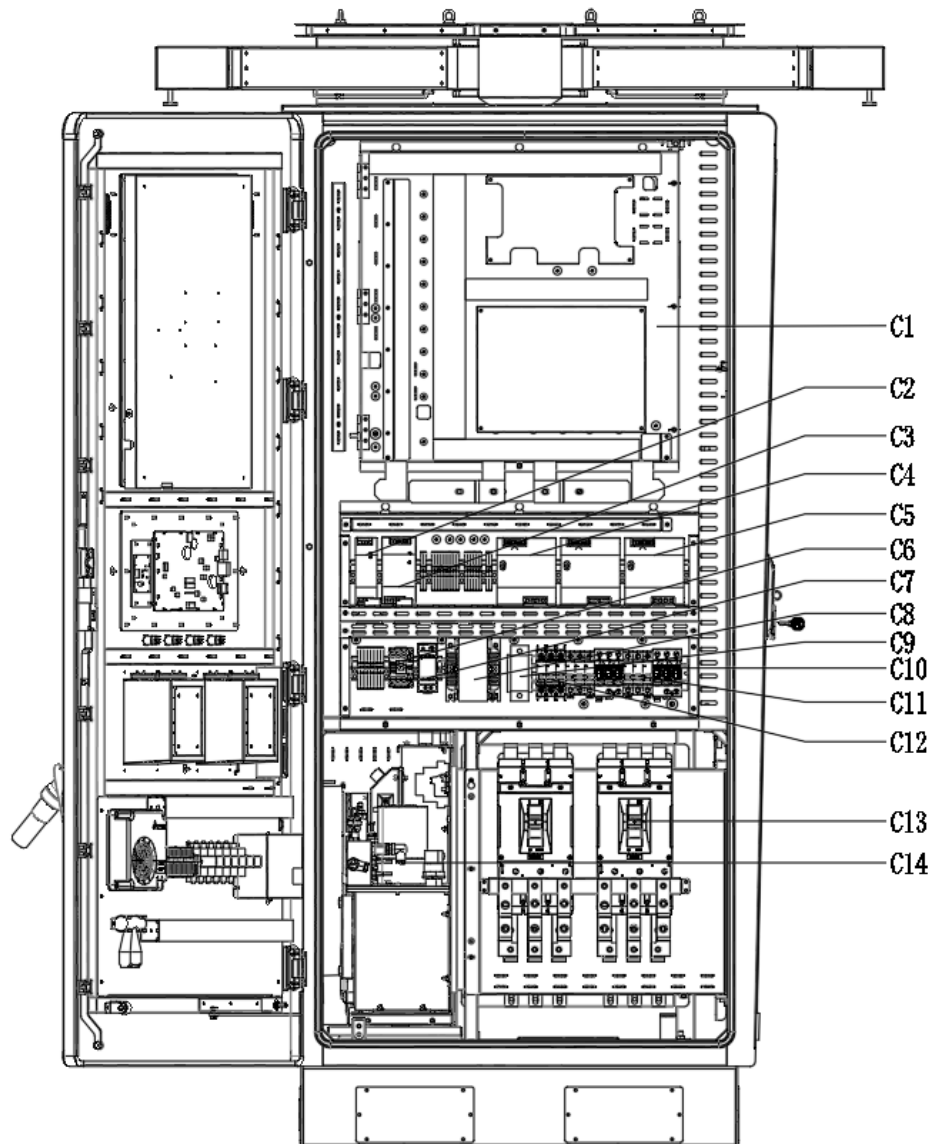


Figure 8 Internal component diagram

C1	PDU module	C2	UR1-12V	C3	UR2-24V	C4	UR3/4-48V
C5	UR5-24V	C6	AC Contactor	C7	DC-DC Power	C8	Transformer
C9	Socket	C10	Surge Protector	C11	MCB	C12	RCBO
C13	MCCB	C14	Liquid cooling unit*				

Note: C14 is standard in Liquid cooling, but is none in Natural Cooling.

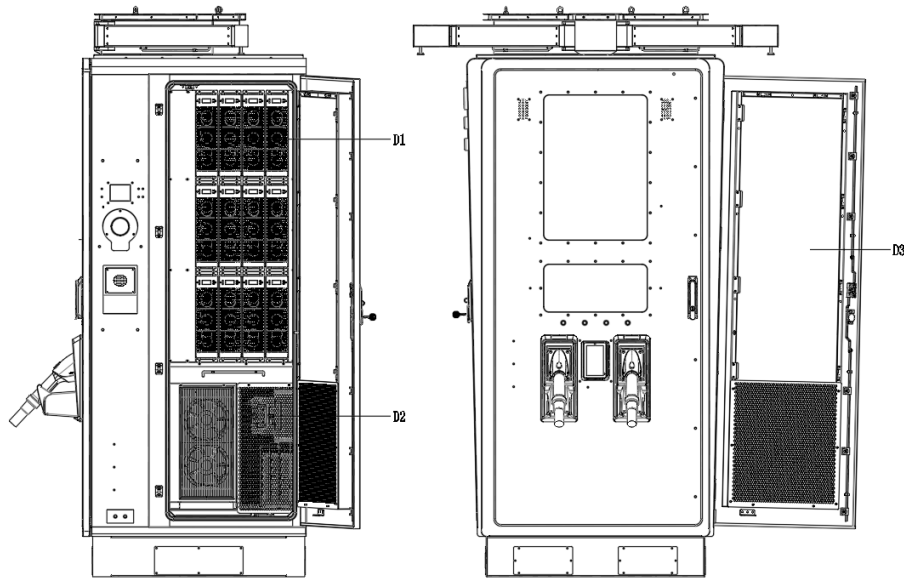


Figure 9 Right component diagram

D1	Power Module	D2	AC Contactor	D3	Filter		
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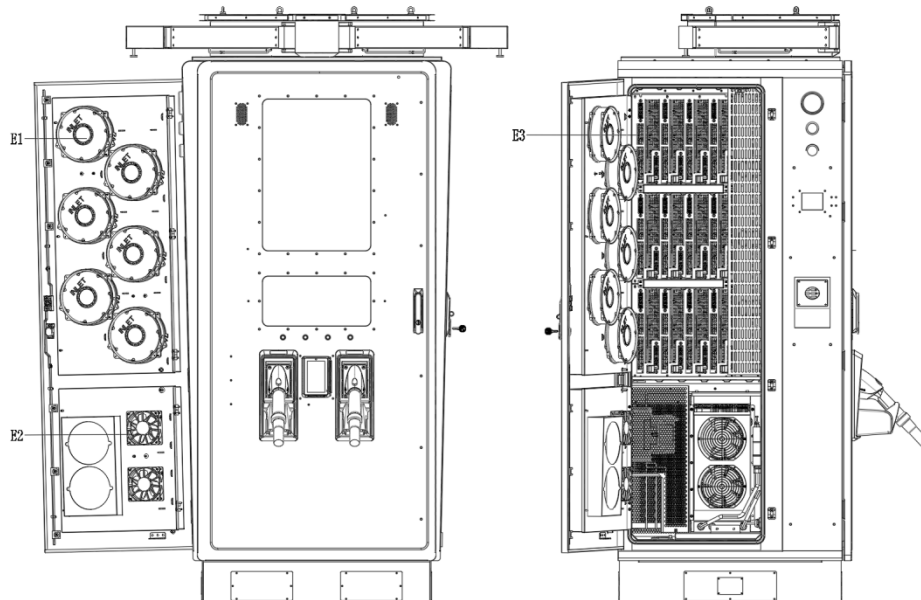


Figure 10 left component diagram

E1	Cooling fan for power module	E2	Cooling fan for cooling unit
E3	Terminals for power module		

## 3.2 Equipment installation and fixing and wiring

### 3.2.1 Installation dimensions

The installation size of the equipment is: 815mm(W) × 2090 mm(H) × 835mm(D), and the external dimensions are shown in below Figure.

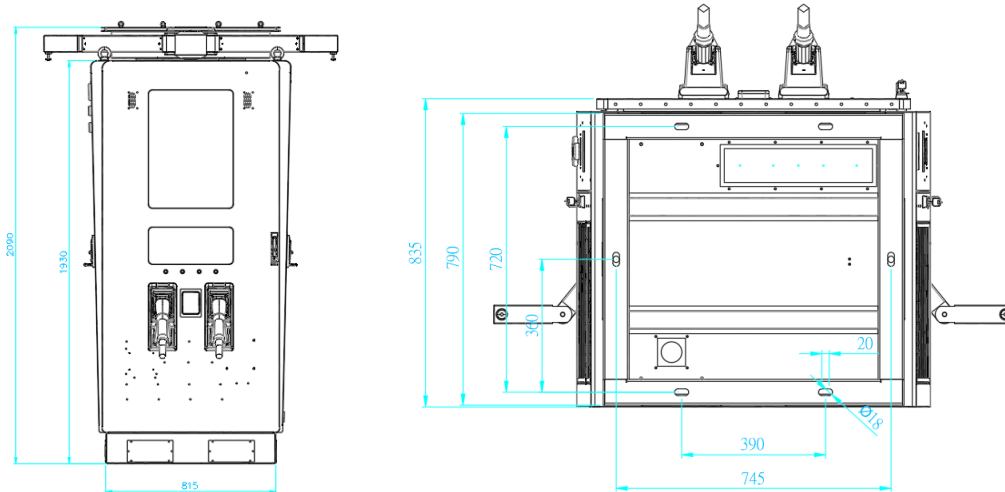


Figure11. Schematic diagram of installation dimensions

### 3.2.2 Unboxing

(1) Open the top cover

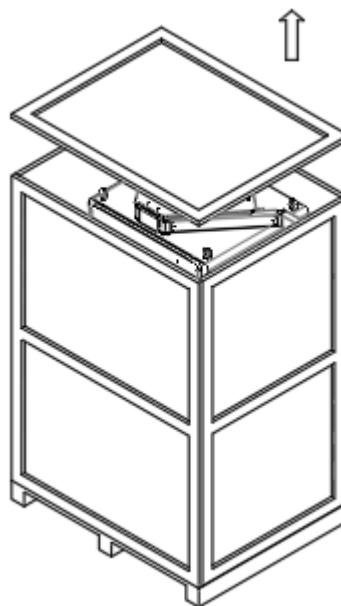


Figure 12: Open the top cover

(2) Remove the left and right side boards

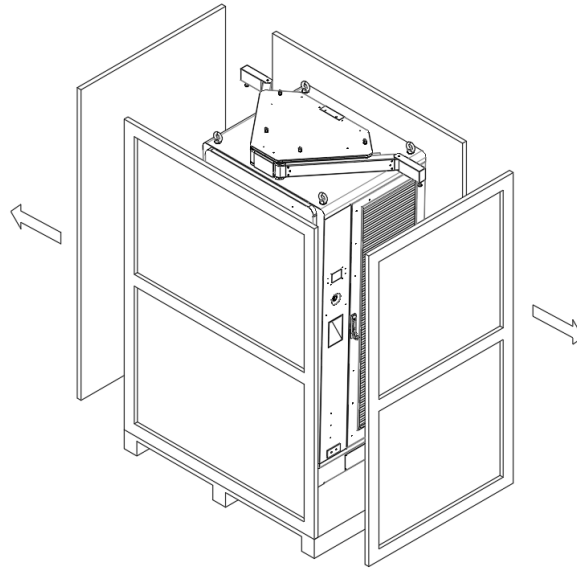


Figure 13: Dismantling the left and right side boards

(3) Remove the front and rear planks

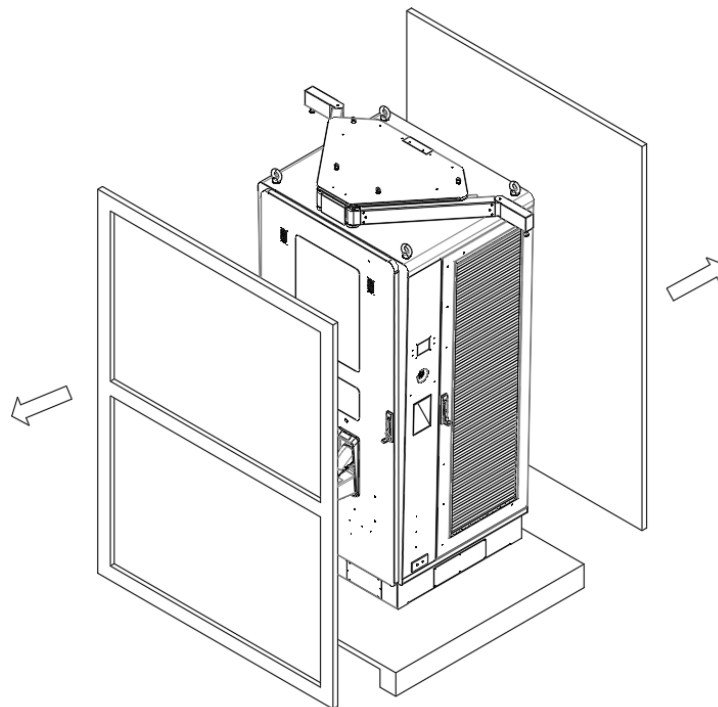


Figure 14: Before and after removal of wooden planks

### 3.2.3 Unloading

There are two ways of unloading, you can choose to use the hoisting method or the liftable forklift method to transport the charging station

(1) Lift the charging station with a crane and confirm that the four lifting rings are in a tightened state

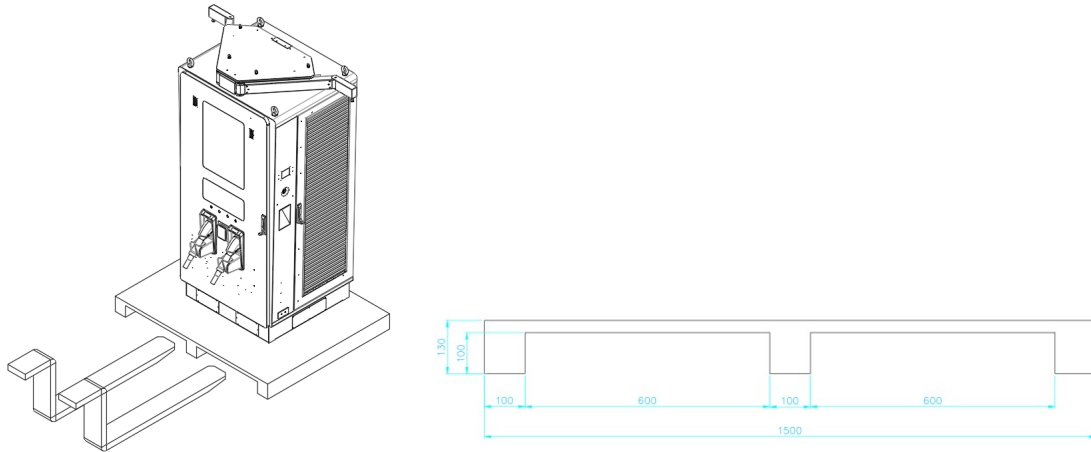


Figure 15: Lifting the charging pile

(2) Remove the tray, and use a No. 19 socket wrench to loosen the M12 screws on the cabinet and tray

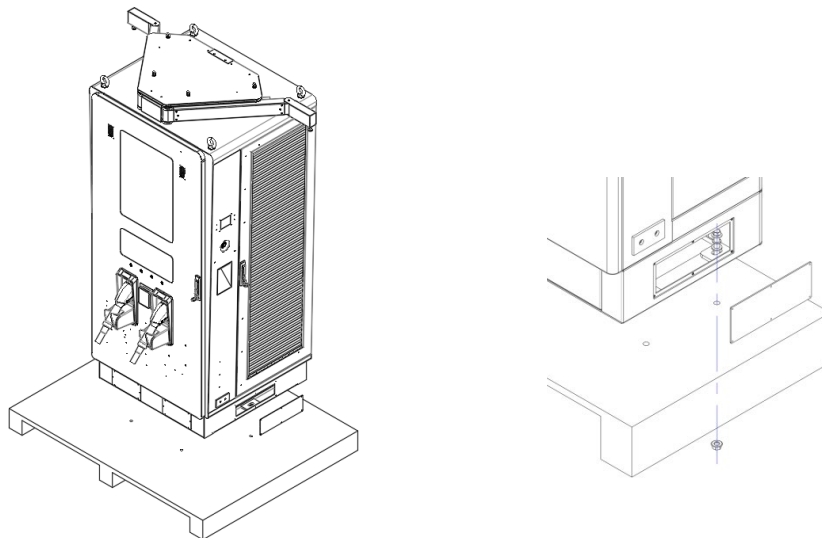


Figure 16: Diagram of removing the tray



(3) Confirm that the four lifting rings are tightened, pass the rope through the rings, and lift the charging pile with a crane.

Note: If you need to install the swing arm, please remove the lifting ring after lifting.

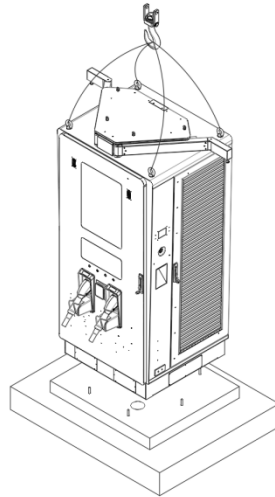


Figure 17 Lifting the charging station

(4) Lift the charging pile, make it fall steadily and slowly, align with the pre-embedded threaded rod, until it falls to the installation base. Make sure that the cables have entered the cabinet along the cable protection cover.

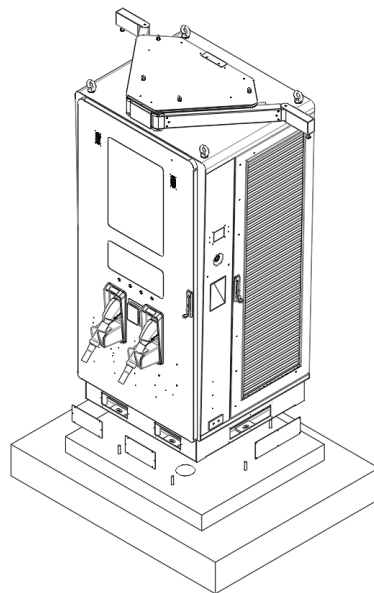


Figure 18 Schematic diagram of cabinet placement

(5) Use M12 nuts and flat and spring washers to fix the charging pile, lock these nuts, and the recommended torque is 95.5N•m.

(6) Lead the cables into the cabinet through the cable glands.

### 3.2.4 Wiring

(1) Open the cabinet doors on both sides, insert the module into the module compartment, make sure that the module identification corresponds to the label attached to the module compartment, and lock the power module with 4 M4×12 combination screws, the recommended torque is 8.8N·m.

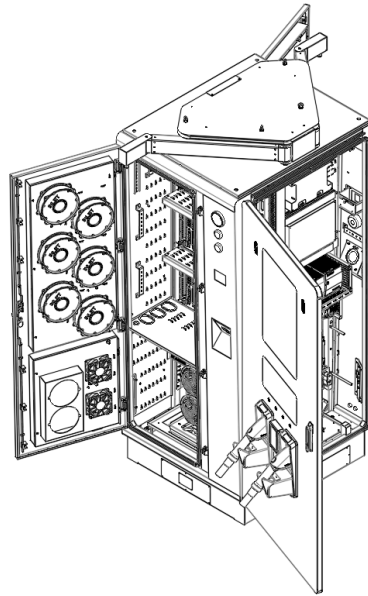


Figure 19 Power module installation diagram

(2) Before wiring, confirm that the leakage protection of the circuit breaker and the air switch should be in the OFF position.

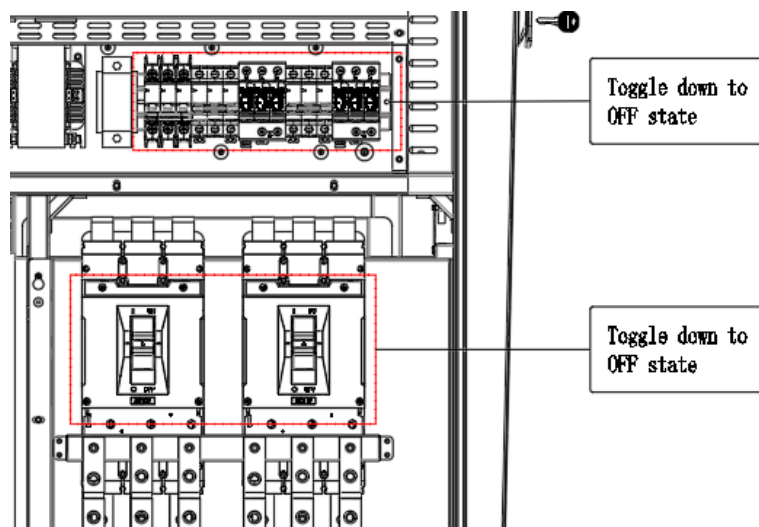


Figure 20 Leakage protection and air switch

### (3) Access the power cord (Two power input cables)

Please select the power cable according to the requirements in Chapter 2.3, and connect it with reference to Figure 21. At the same time, make sure that the cable is not broken, damaged or scratched.

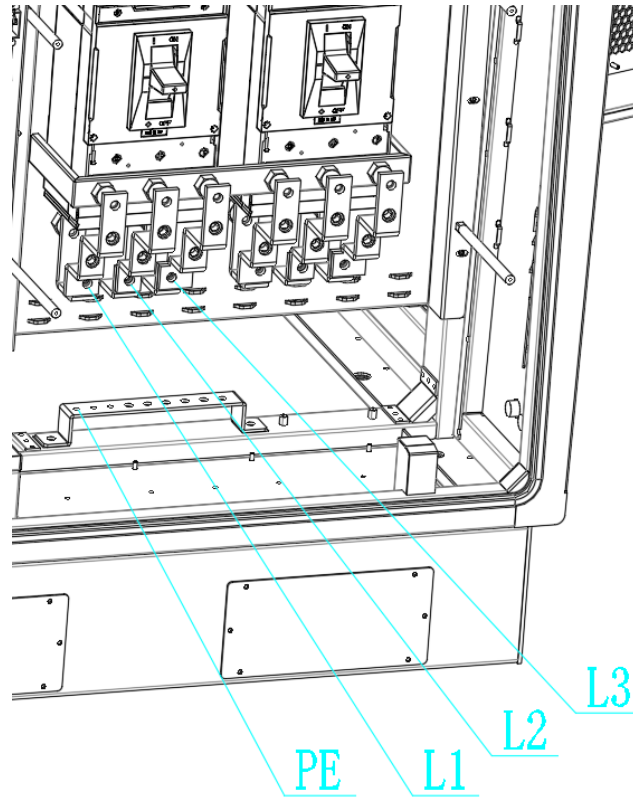


Figure 21 Wiring diagram

Note: PE needs to be connected to the grounding copper bar.

The multimeter selects the resistance on-off position (  ),

Check whether there is a short circuit between +12V and -12V, between L1, L2, L3, PE.

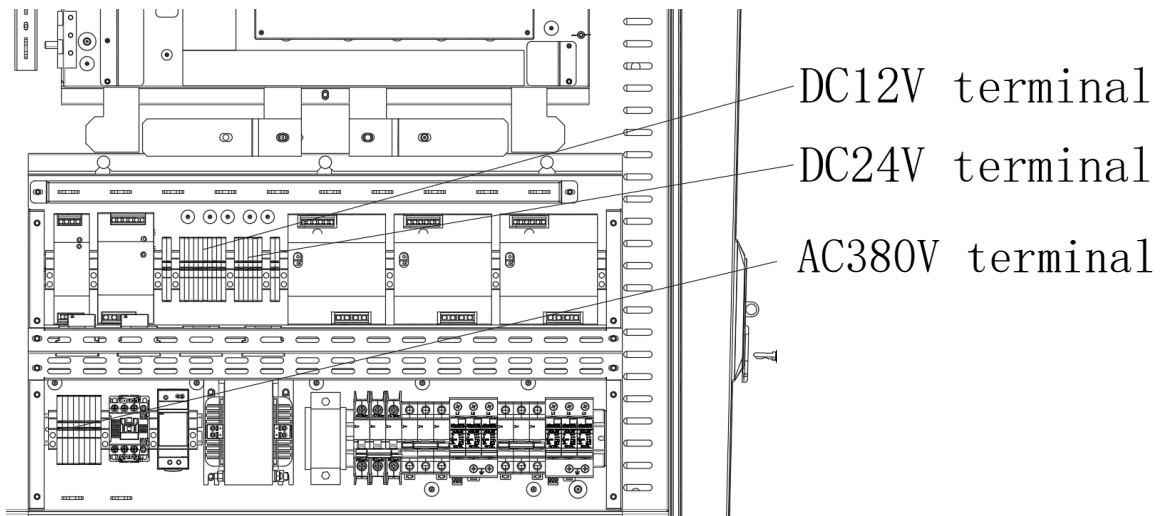


Figure 22 The multimeter detects whether there is a short circuit

#### (4) IT system firmware requirements

The IT system needs to refresh the new firmware to turn off the input PE detection.



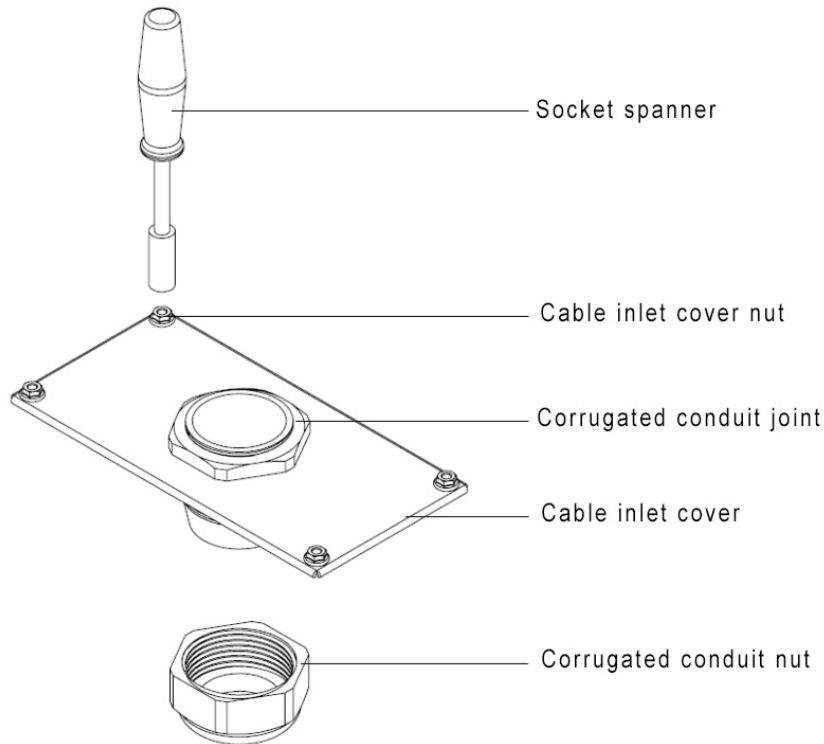
**Warning:** Must be carried out in accordance with the specifications and correct operation steps. Improper execution may result in personal injury or death.

### 3.3 Description of Cable inlet at the bottom

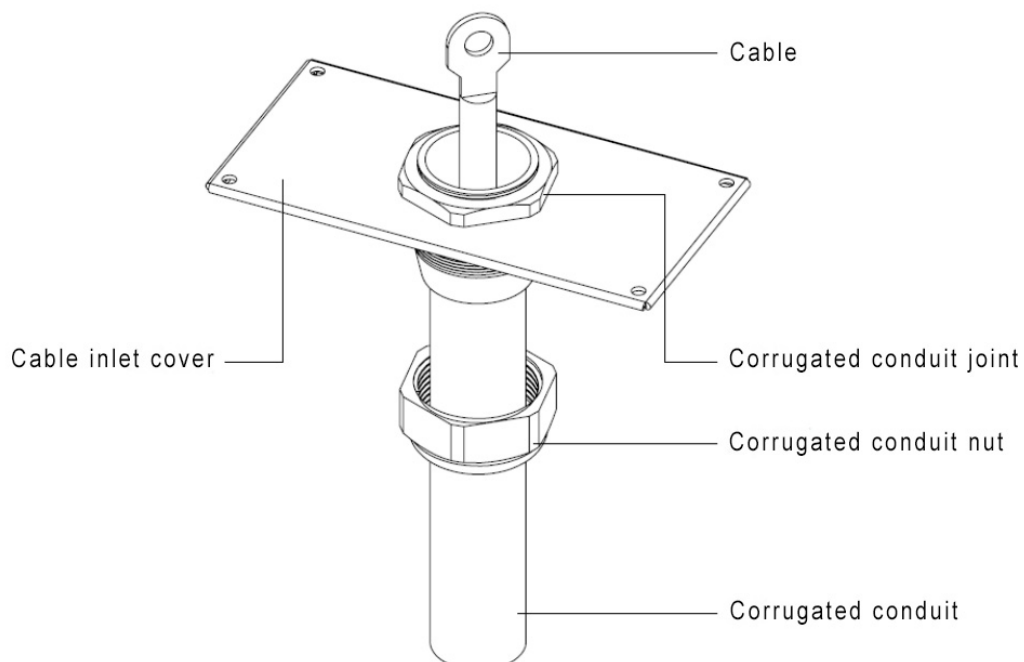
#### 3.3.1 Equipped with the joint of corrugated conduit (with corrugated conduit / without corrugated conduit)

a. The installation steps of the corrugated conduit are as follows:

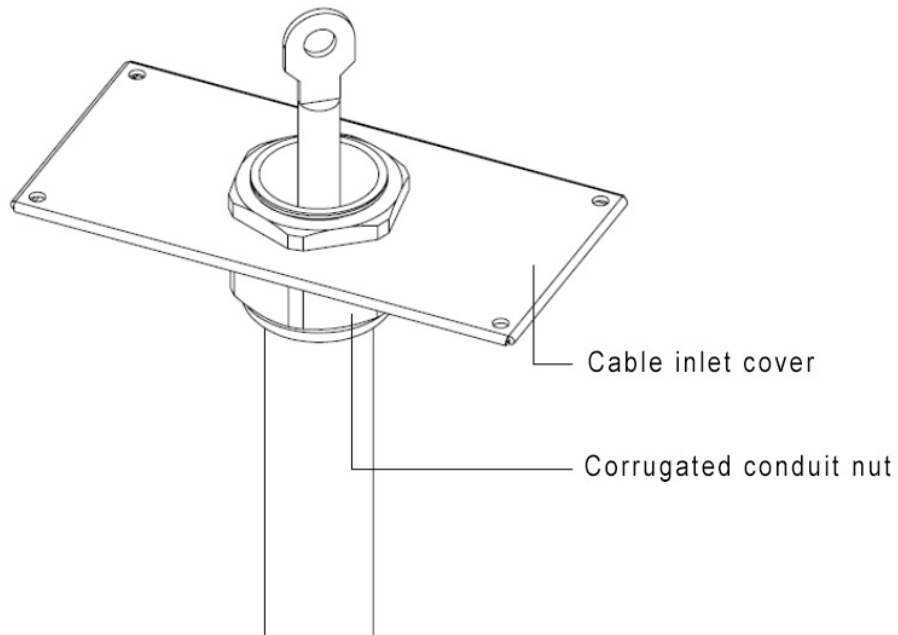
(1) Use a socket spanner or ratchet wrench to remove the cable inlet cover and unscrew the corrugated conduit nut.



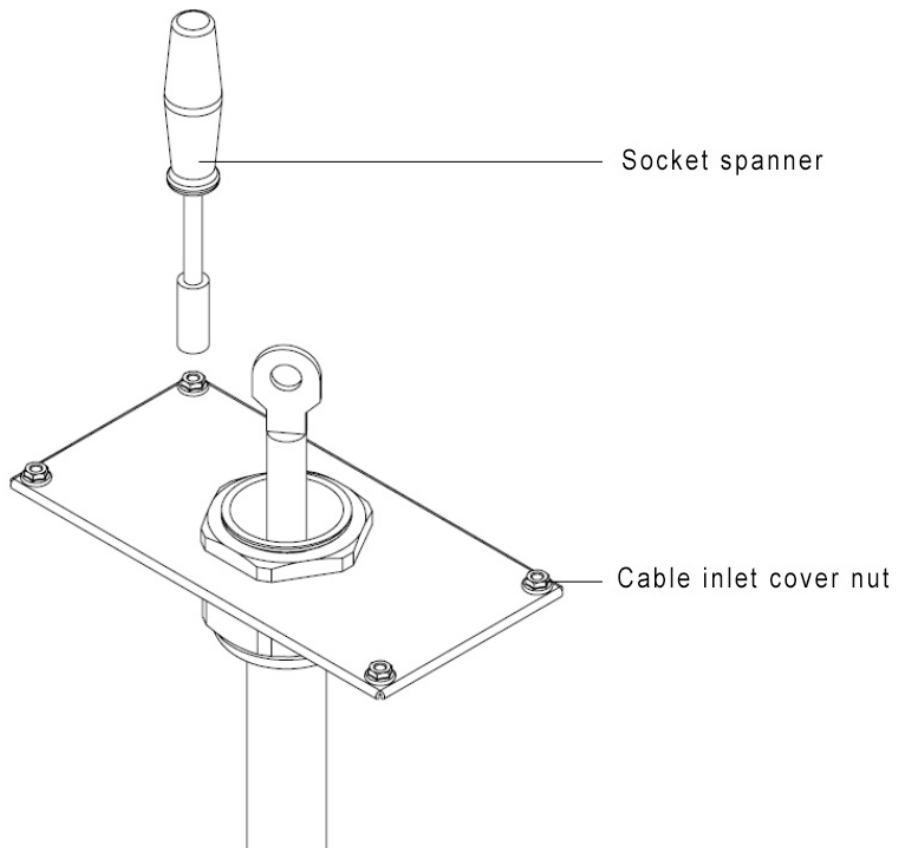
(2) Thread the corrugated conduit and cable into the corrugated conduit nut and corrugated conduit joint in turn.



(3) After tightening the corrugated conduit nuts, place the cable inlet cover plate back to the bottom of the pile.

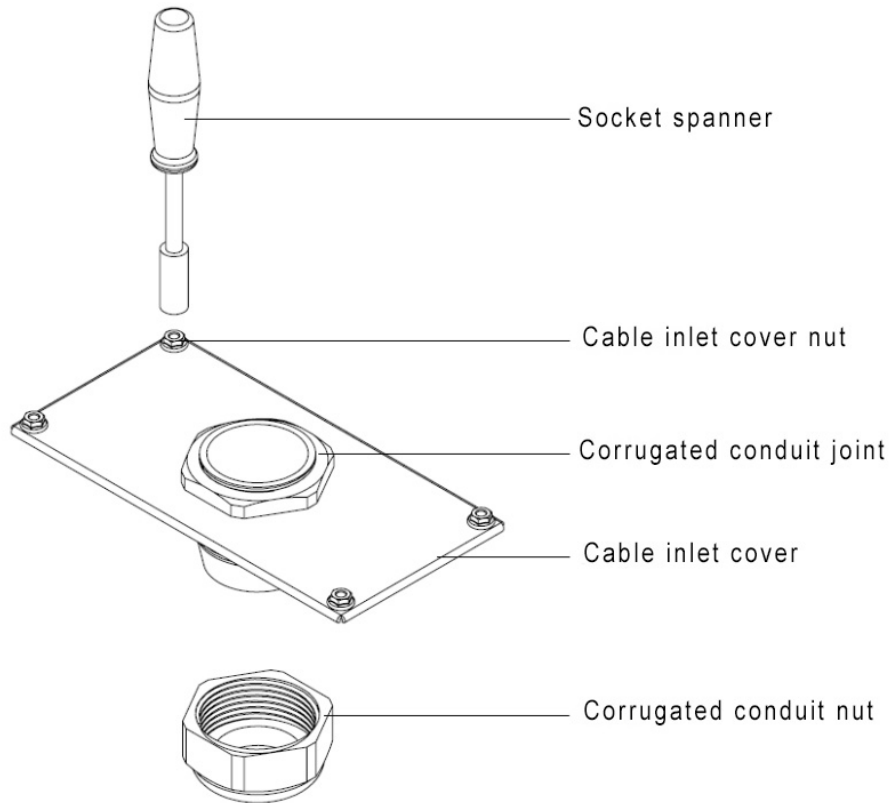


(4) Assemble the cable inlet cover nut with a socket spanner or ratchet wrench.

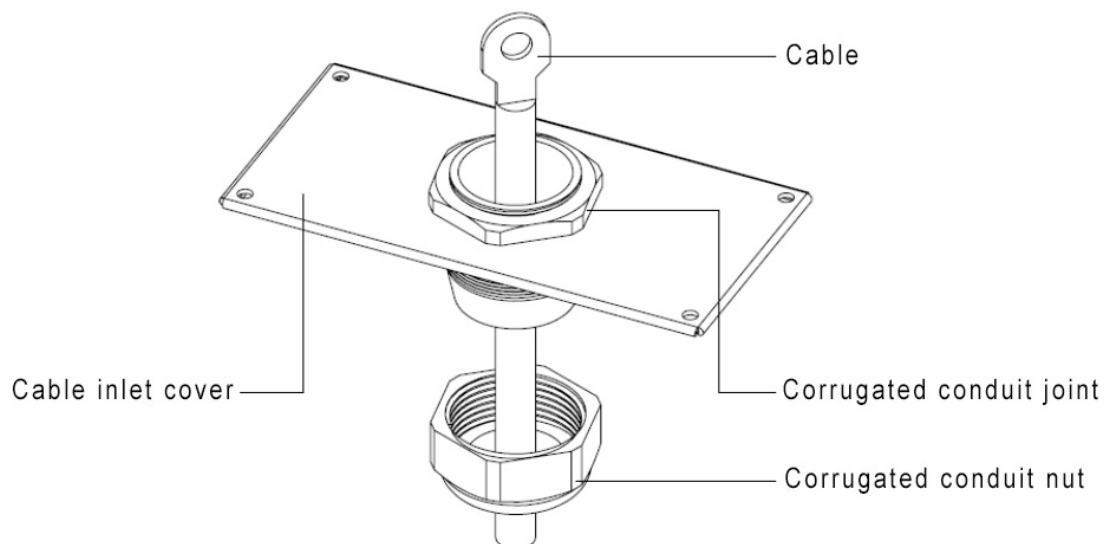


b. The installation steps of the non-corrugated conduit are as follows:

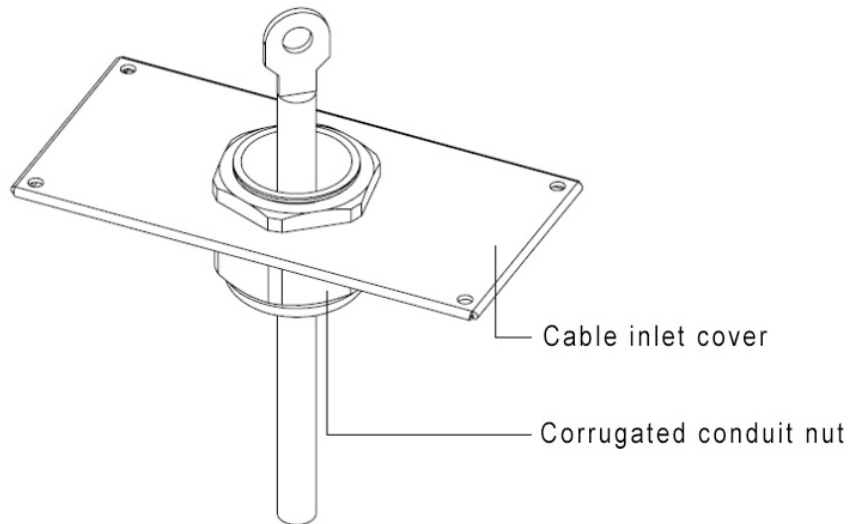
(1) Use a socket spanner or ratchet wrench to remove the cable inlet cover and unscrew the corrugated conduit nut.



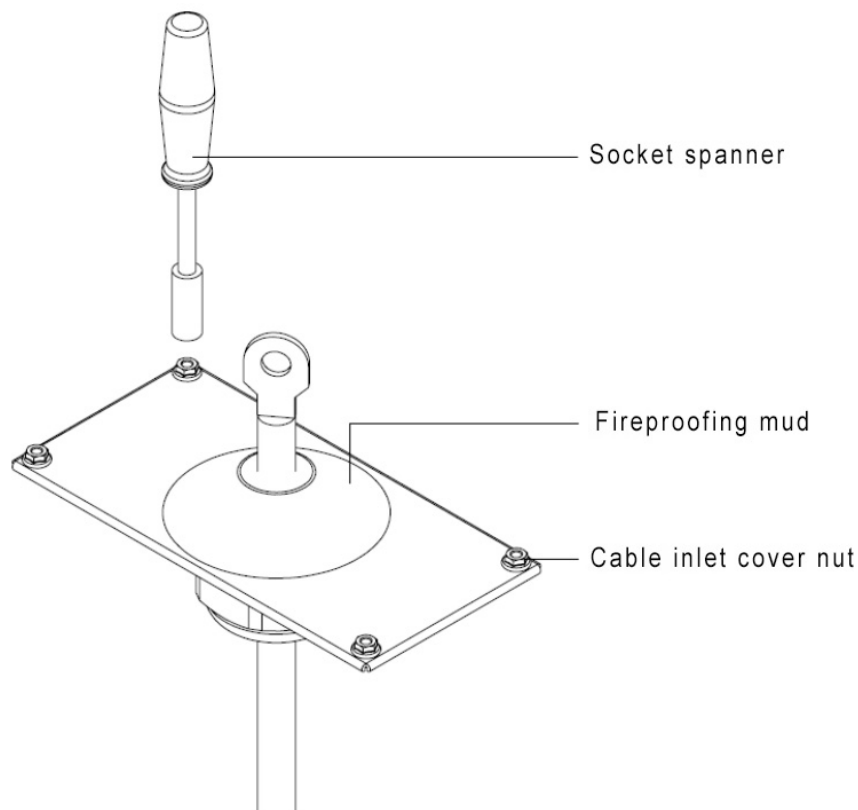
(2) Thread the cable into the corrugated conduit nut and corrugated conduit joint in turn.



(3) After tightening the corrugated conduit nuts, place the cable inlet cover plate back to the bottom of the pile.



(4) After assembling the cable inlet cover nut with a socket spanner or ratchet wrench, seal the cable inlet with fireproofing mud.

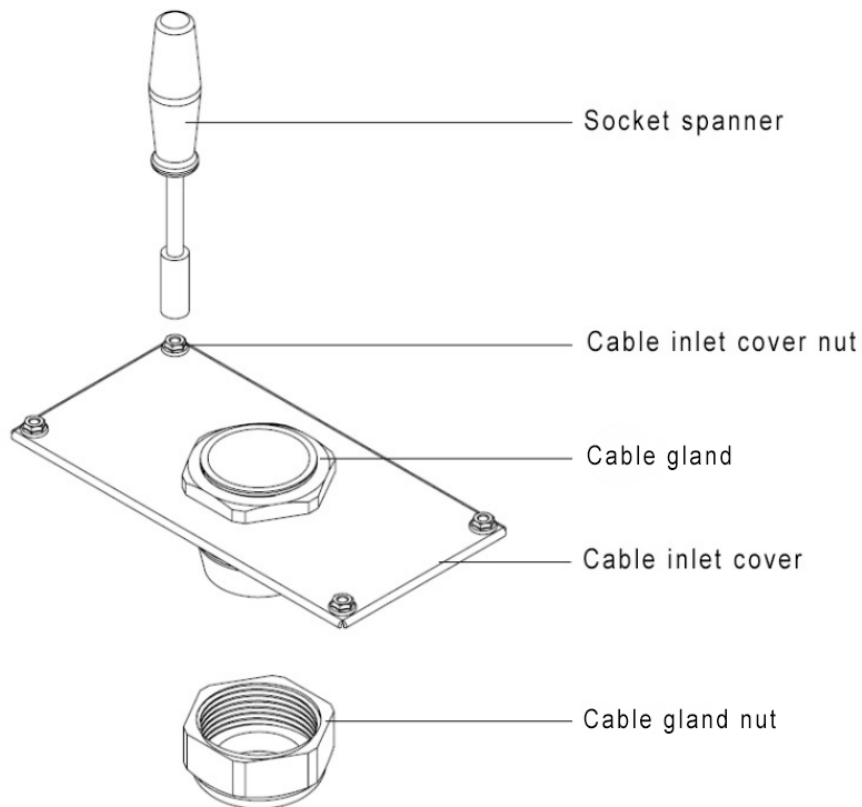




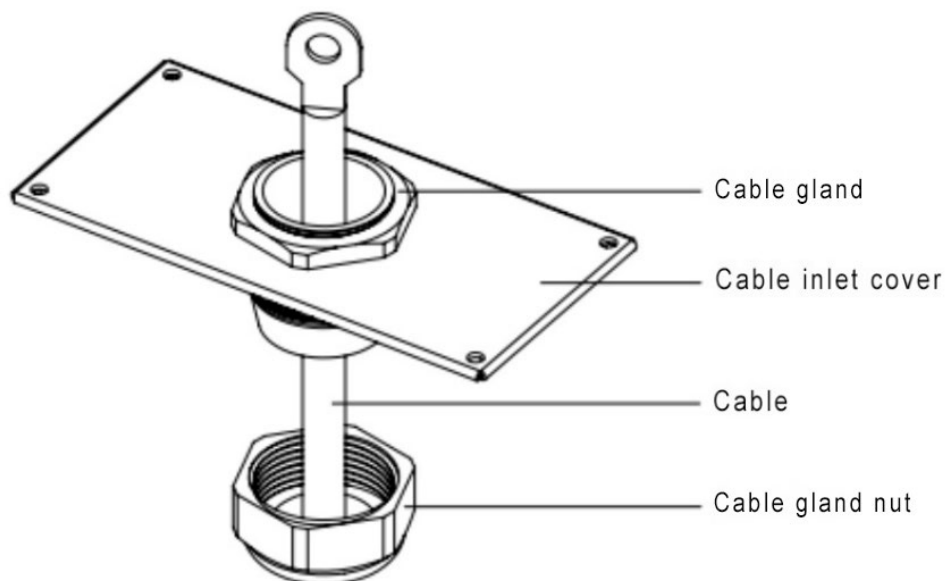
### 3.3.2 Equipped with cable gland

The installation steps are as follows:

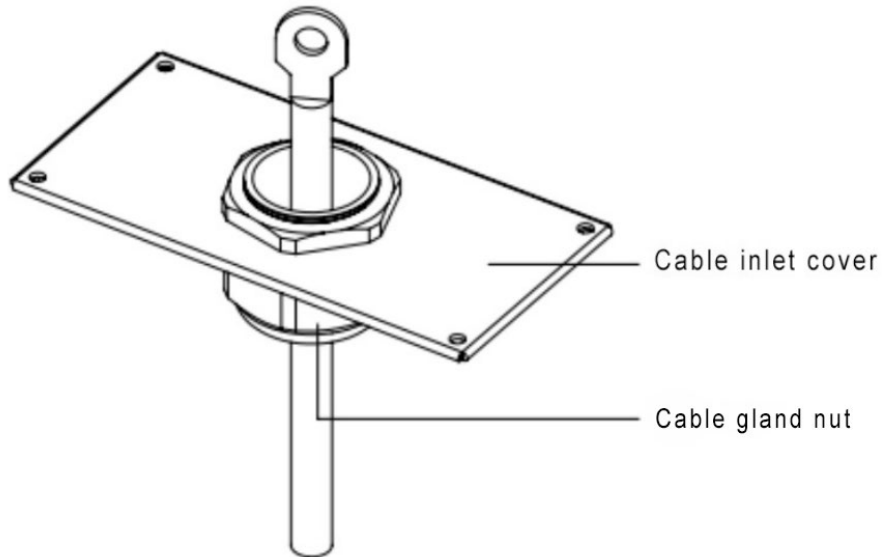
- (1) Use a socket spanner or ratchet wrench to remove the cable inlet cover and unscrew the cable gland nut.



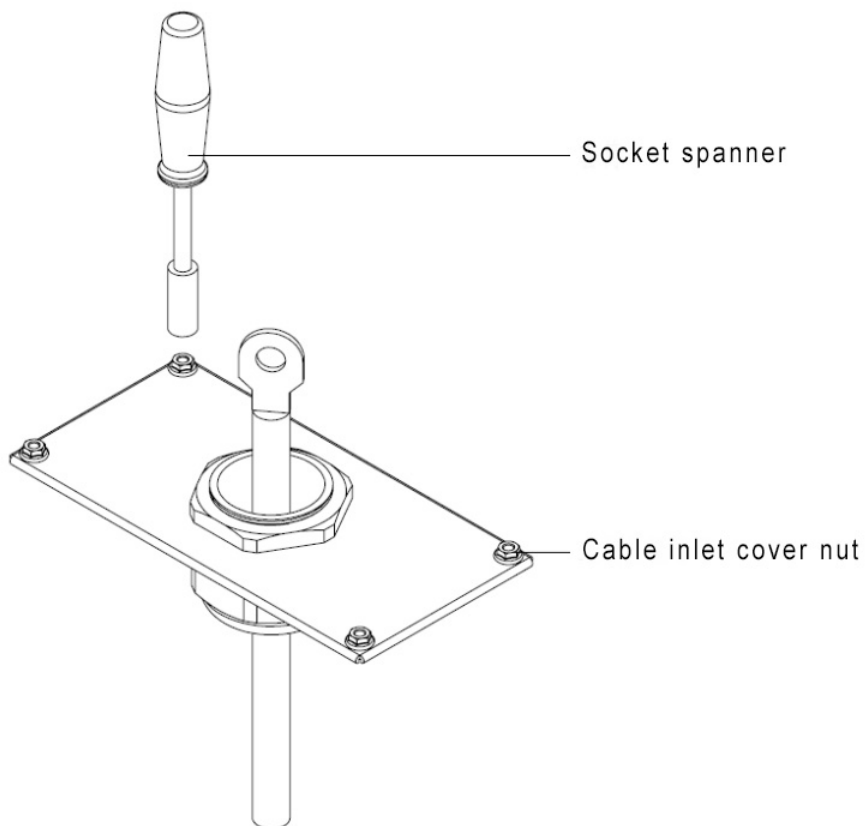
- (2) Thread the cable into the cable gland nut and cable gland in turn.



(3) After tightening the cable gland nut, place the cable inlet cover back to the bottom of the pile.



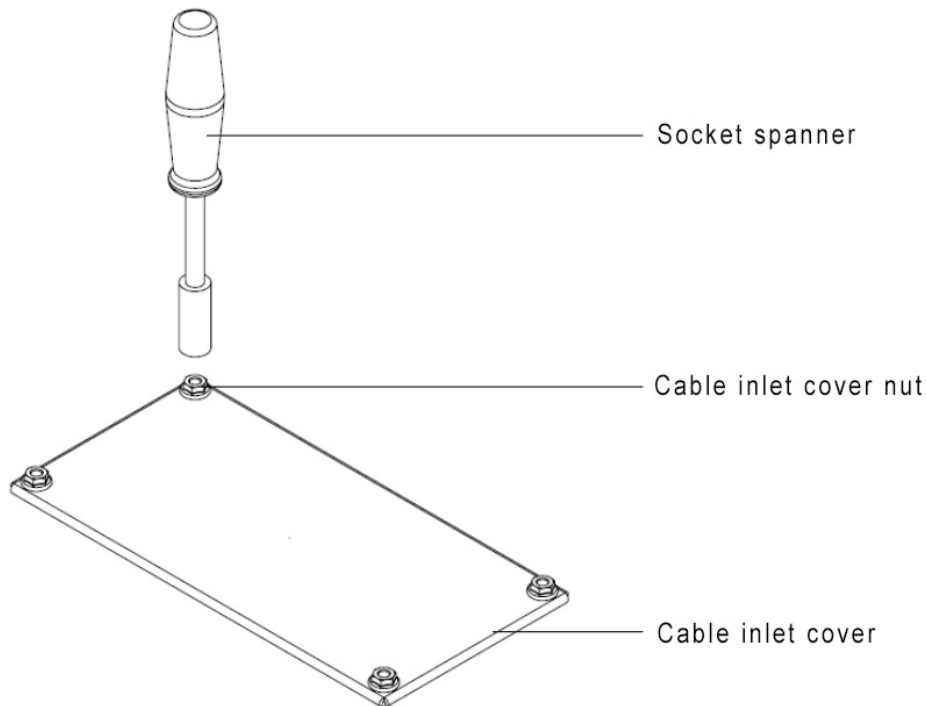
(4) Assemble the cable inlet cover nut with a socket spanner or ratchet wrench.



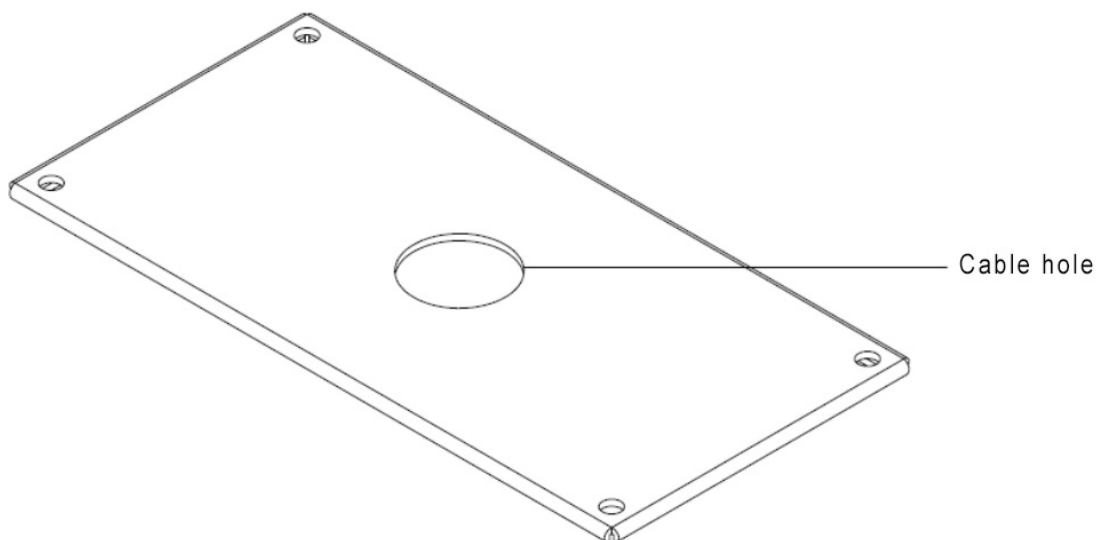
### 3.3.3 Only equipped with wire cover plate, the customer's own drilling.

The installation steps are as follows:

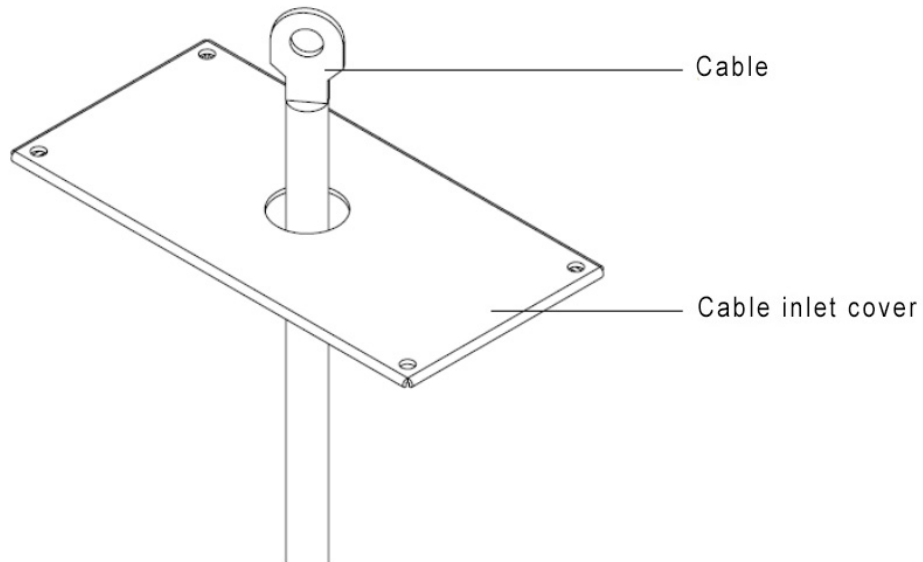
(1) Use a socket spanner or ratchet wrench to remove the cable inlet cover.



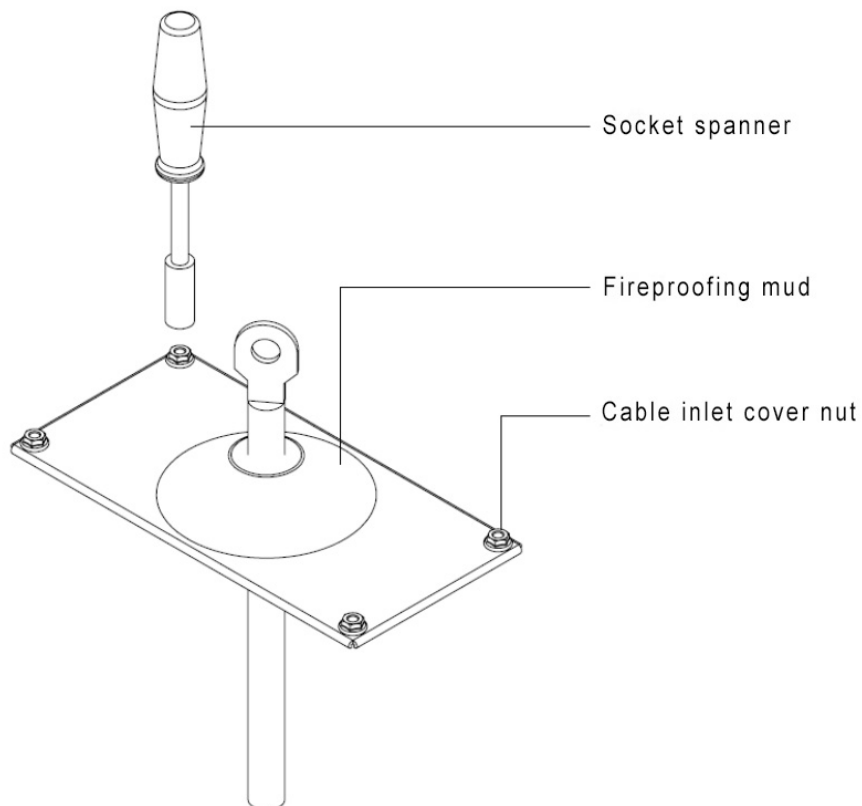
(2) According to the equipped inlet cable diameter, the customer can drill the corresponding size of the cable hole.



(3) After threading the cable into the cable hole, place the cable inlet cover plate back to the bottom of the pile.



(4) After assembling the cable inlet cover nut with a socket spanner or ratchet wrench, seal the cable inlet with fireproofing mud.



## 4. Inspection after installation

### 4.1 Installation wiring check

#### 4.1.1 Equipment and equipment fixing inspection

- (1) The appearance of the charging pile is clean and tidy, there is no bump damage, the position is consistent with the base, and it is firmly fixed without loosening.
- (2) The orientation of the equipment meets the installation standards.
- (3) There is no leakage of equipment installation accessories.
- (4) The book review of the level measuring equipment meets the specified requirements.

#### 4.1.2 Cable laying and connection inspection

- (1) Check whether the cable insulation is scratched or damaged.
- (2) Check whether the power cable terminals are compliant and the wiring is firm.
- (3) Check that the communication cable terminals are correct and not loose.
- (4) Check for hanging cable labels.
- (5) Check whether the cable bending radius meets the requirements.
- (6) Check whether the electrical grounding is reliable.

### 4.2 Check before power-on

Before powering on the equipment, check whether the power supply voltage at the upper end of the plastic-cased air circuit breaker at the low-voltage power distribution cabinet is normal, and there are no abnormalities such as phase loss, overvoltage, undervoltage, and phase sequence. The circuit breaker, leakage protection and air switch should be in the OFF position, as shown in the figure below.

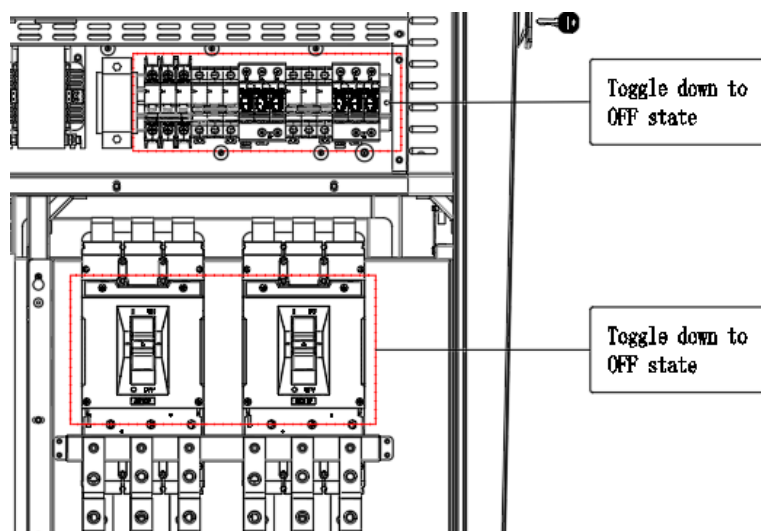


Figure 23 Turn off the circuit breaker, leakage protection, air switch

After ensuring that the charging pile is installed stably and the wire connection is reliable, etc., the charging station can be powered on.

### 4.3 Power-on check

Connect the main switch of the external AC power supply of the charging pile.

- Turn on the circuit breaker, leakage protection and air switch.

(The door is open, the fault light is on, and the buzzer sounds.)

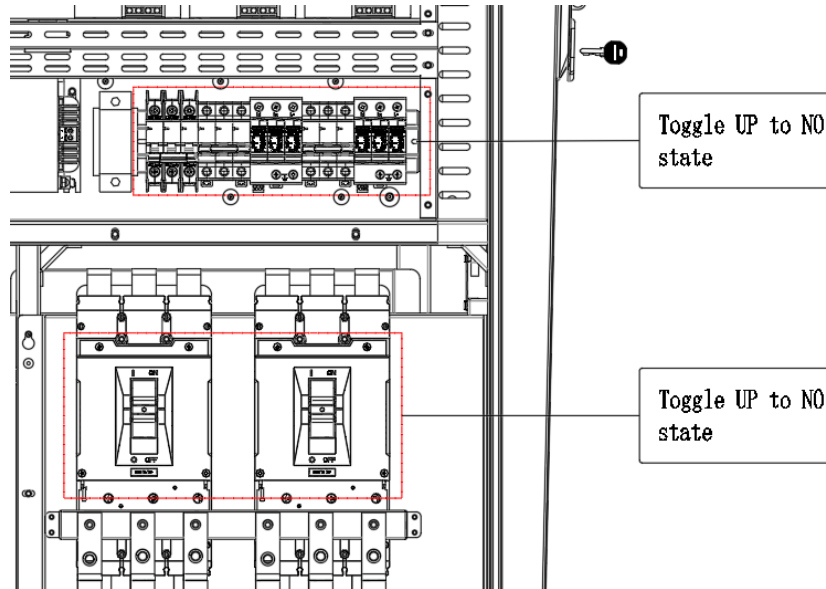


Figure 24 Open circuit breaker, leakage protection, air switch

- Close the cabinet door (the fault indicator light is off at this time, and the buzzer stops beeping.)

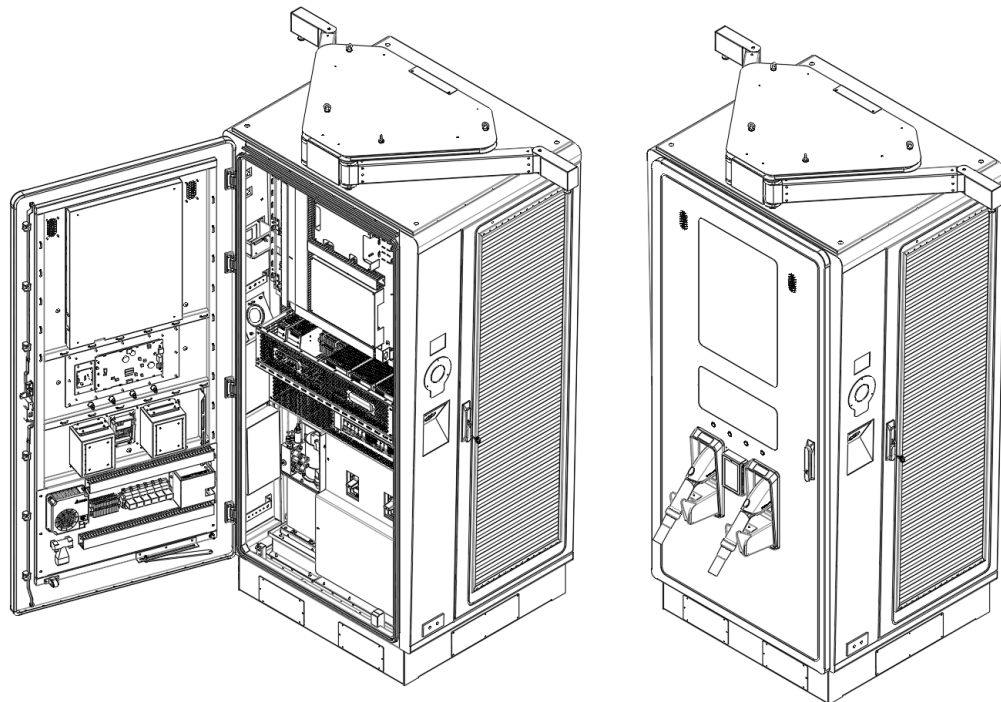


Figure 24 Close the cabinet door

- The screen enters the startup interface, and the green light is on. (Note: Please refer to the table below for the detailed description of the indicator lights on the light board)

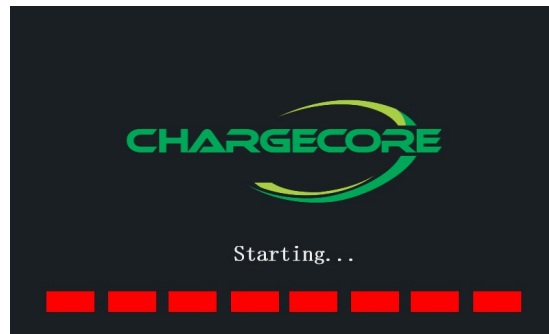


Figure 25 The screen display after power on

indicator light	standby	charge	Error
DC1	green steady	blue steady	red steady
DC2	green steady	blue steady	red steady
other:			
DC connector plug-in light: white constant light			
Atmospheric light at the top: Available: green, unavailable: blue			

Table 6: Comparison table of charging pile status indicators

## 5. Power module address settings

Before setting the address, power off the charger, place the power module in the power supply slot, follow the sticker instructions to set the DIP switch to the address of 1-12 (as show Figure 26 the DIP switch corresponding to addresses 1-12), then you can power on the charger.

Under normal circumstances, all power modules can be found within 2 minutes, otherwise, a fault code will be displayed on the screen. If fail repeatedly, start again from the first step or call for help from the manufacturer.









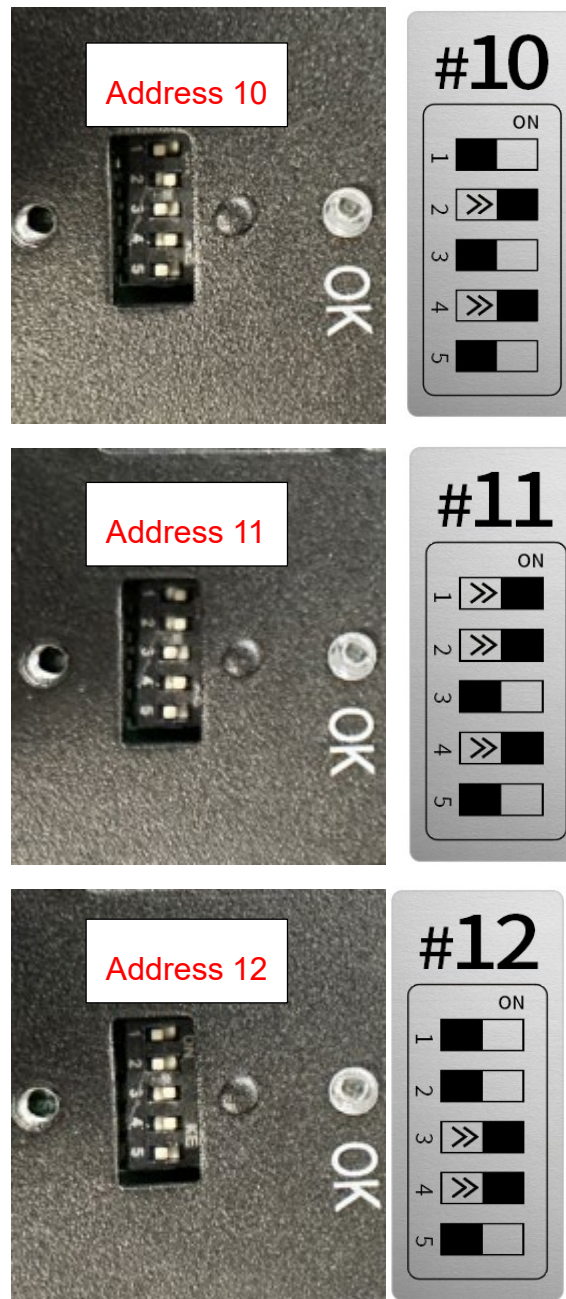


Figure 26 The DIP switch corresponding to addresses 1-12

## 6.Charging

### 6.1 Display introduction

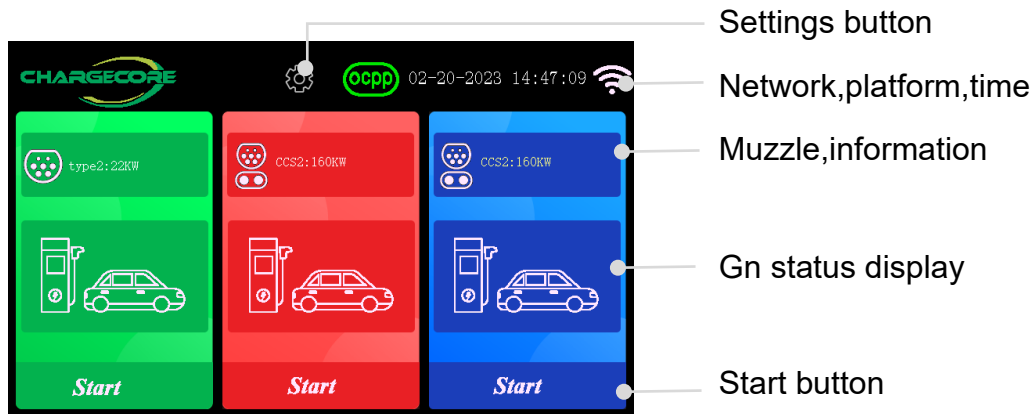


Figure 27 Display introduction

### 6.2 Initial Setup

#### 6.2.1 The administrator interface configures the network

**Step1:**Click the "Settings" button on the homepage

**Step2:**Enter password to enter



Figure 28. Home page "Settings"

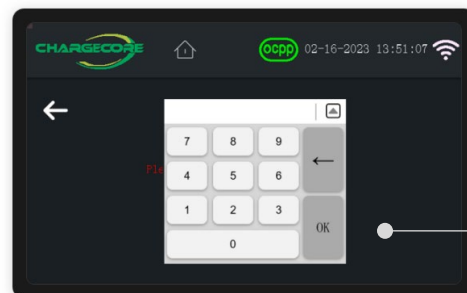


Figure 29. Password input

Description: How to change the password?

Log in to the administrator interface, select "Basic Settings" and click the "Password" button

·Enter the six-digit old password, new password, and confirm the new password (Figure 31), click "Confirm" and the modification is successful

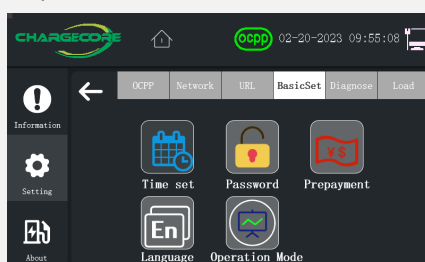


Figure 30. Basic settings

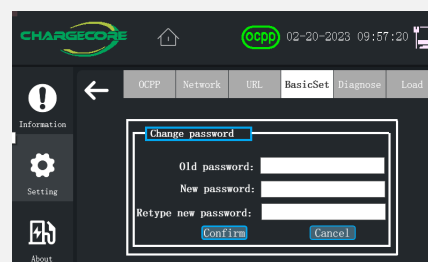


Figure 31. Change password

## 6.2.2 Network configuration

After entering the management interface, select "Network"

- Support WIFI, 4G, Ethernet

The signal icon in the upper right corner of the screen is displayed as the corresponding networking mode (as shown in Figure 32), that is, the network connection is successful.



Figure 32. Network configuration success signal icon

### ➤ WIFI Set

Step1: Select WIFI > Click Refresh

Step2: Enter WIFI password > Next to confirm

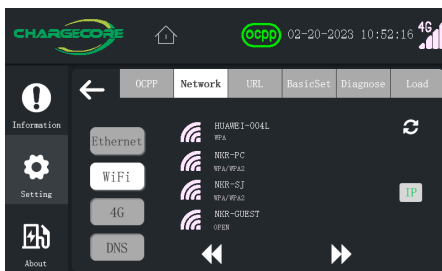


Figure 33. Select WIFI

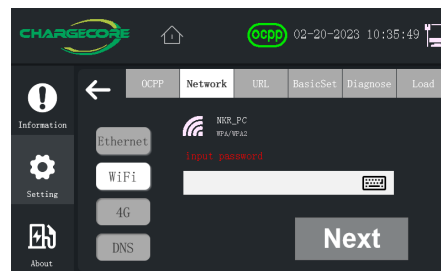


Figure 34. Enter WIFI password

### ➤ 4G Set

Step1: Select 4G > Set the corresponding parameters

Step2: Confirm to switch to 4G network

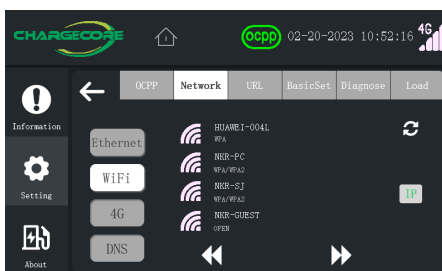


Figure 35. Select 4G network

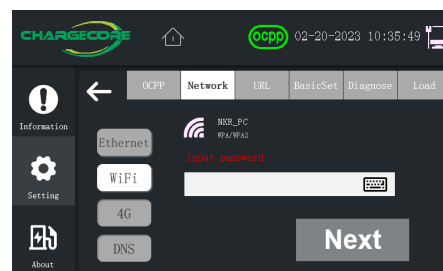


Figure 36. Confirm switch network

### ➤ Ethernet set

Select Ethernet > Tick Obtain Automatically/Set IP Address Manually > Confirm Connection

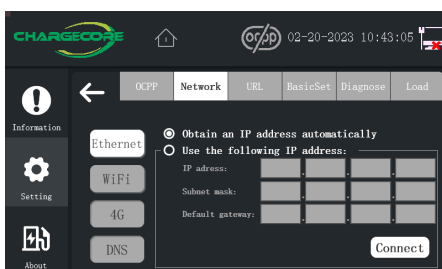


Figure 37. Select Ethernet

### 6.2.3. OCPP platform connection

After the configuration of the charging pile network is completed, it will automatically connect to the OCPP platform within 60s. After the connection is successful, the OCPP icon on the screen will light up (as shown in Figure 38)



Figure 38. OCPP connection successful

## 6.3 Charging process

**6.3.1 Take out the plug gun, insert the charging gun into the charging port of the vehicle, and the screen icon changes at this time (as shown in Figure 39 and Figure 40)**

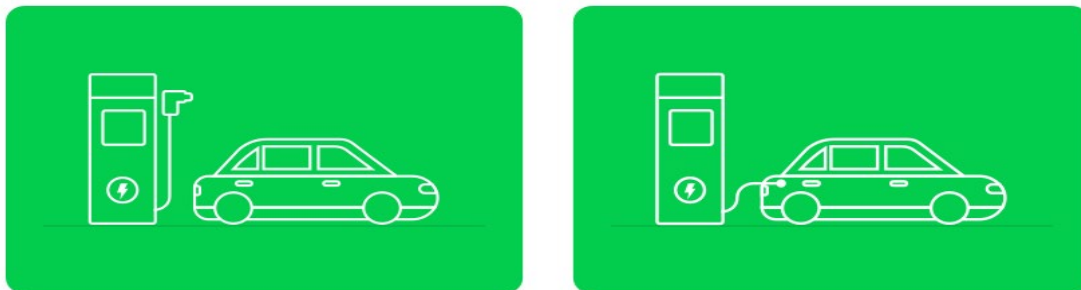


Figure 39. The state of not inserting the gun      Figure 40. The state of not inserting the gun

### 6.3.2 After inserting the gun, click the "start" button and select the payment method

·Support RFID activation, APP scanning code activation, POS credit card activation (optional)



Figure 41 payment method selection interface



\* Click the "[ ]" button on the home page of the App to scan the QR code (Note: For details on how to use other functions of the APP, please refer to the APP instruction manual)



Figure 42. Chargecore interface

### 6.3.3 Select the charging mode

·Support SOC mode, time mode, power mode, fast charging mode

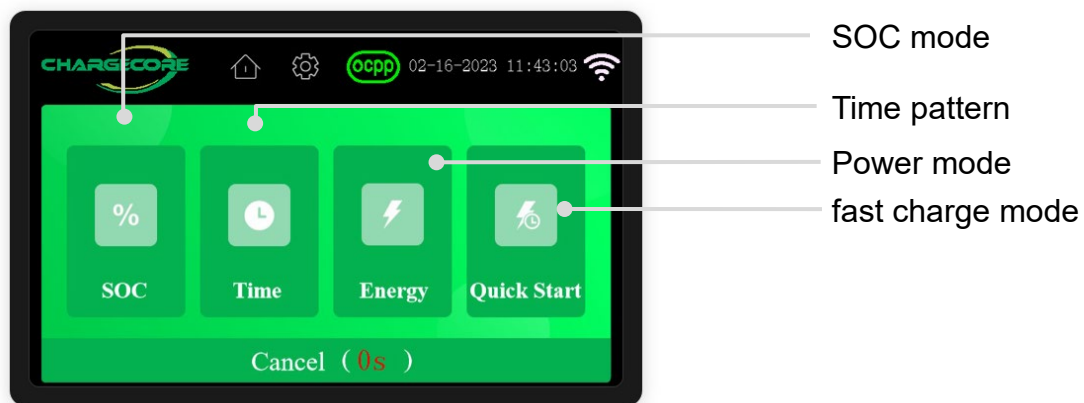


Figure 43. Charging mode selection - screen operation interface

\* After the App scans the QR code, it enters the charging mode and payment method selection (Note: Please refer to the App instruction for detailed App usage)

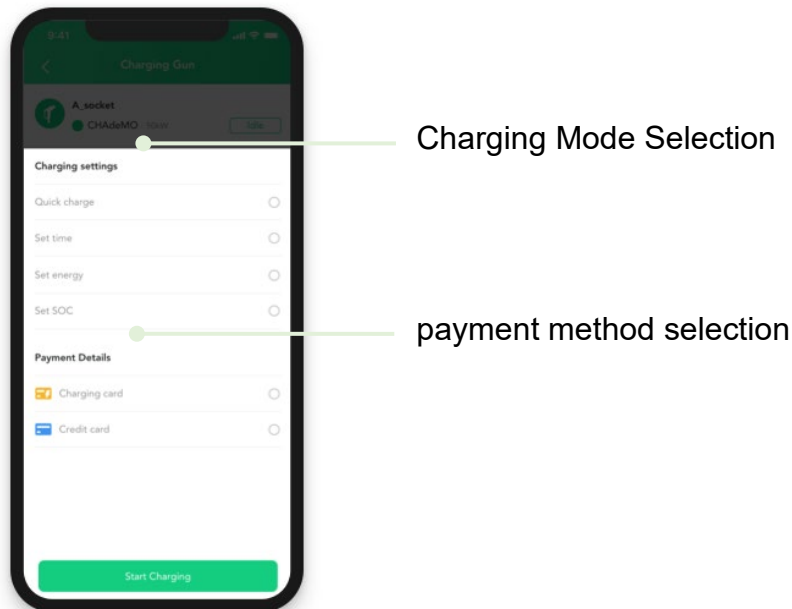


Figure 44 Charging mode selection - App operation interface

➤ Click to select SOC mode/time mode/power mode

a. Enter the percentage of electricity required for this vehicle (%) / the required charging time for this time (min) / the required electricity for this charging (kwh) (as shown in Figure 45)

b. Click to start charging

SOC mode: Enter the percentage of electricity that the vehicle needs to reach this time (%)

Power mode: the power required for this charging (kwh)

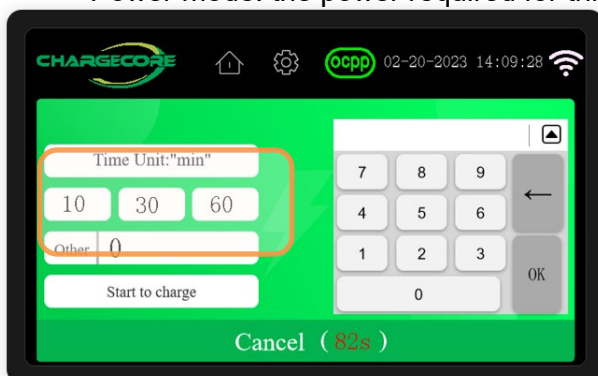


Figure 45. Time mode: the required charging time for this time

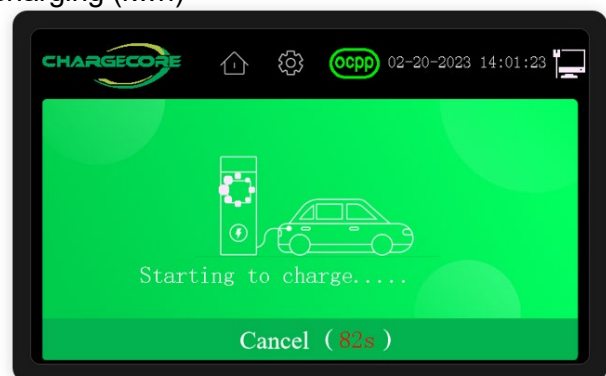


Figure 46. Initiating charging

➤ Click to select the fast charging mode to start charging immediately



### 6.3.4 Charging

- Check vehicle charging details in real time (as shown in Figure 47)

Charging will end automatically after it is fully charged / click the "STOP" button to end charging in advance

(Note: When using the App to charge, you need to operate the "STOP" button on the App)

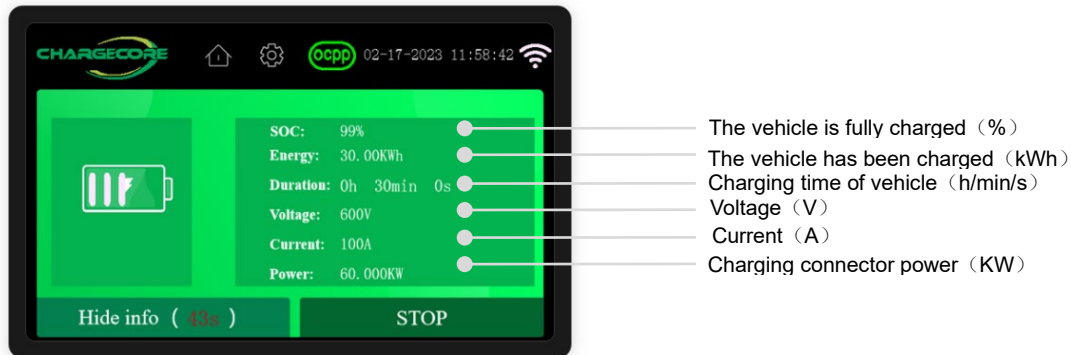


Figure 47. Charging interface

### 6.3.5 Pay the order and view the order details (as shown in Figure 49)

·When choosing an RFID card, you need to swipe the card again to pay (as shown in Figure 48)

·When choosing an app, the payment will be automatically completed in the credit card/debit card bound to the app in the app

·No need to operate when selecting the pos machine, the payment will be completed automatically after the charging stops

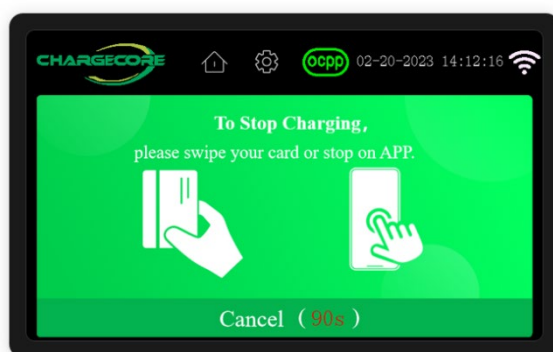


Figure 48. RFID card settlement interface

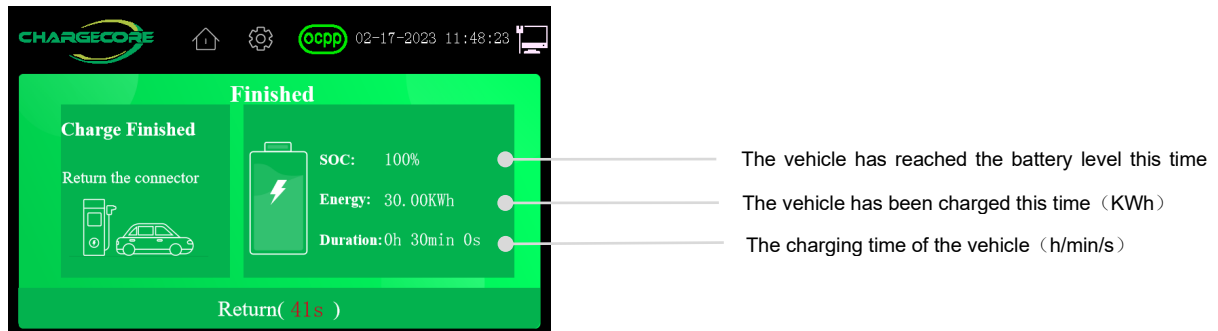


Figure 49. Order details interface

### 6.3.6 After charging is complete, pull out the charging plug and put it back in place

## 6.4 Power Off & Shutdown

After charging, disconnect the leakage protection and the air switch, and then power off the main brake.

### 6.4.1 Turn the door lock handle to the left to open the cabinet door.

#### Illustrate:

1. If you need to charge again, you need to reinsert the gun
2. When one gun of the charging pile is charging and the other guns are not connected

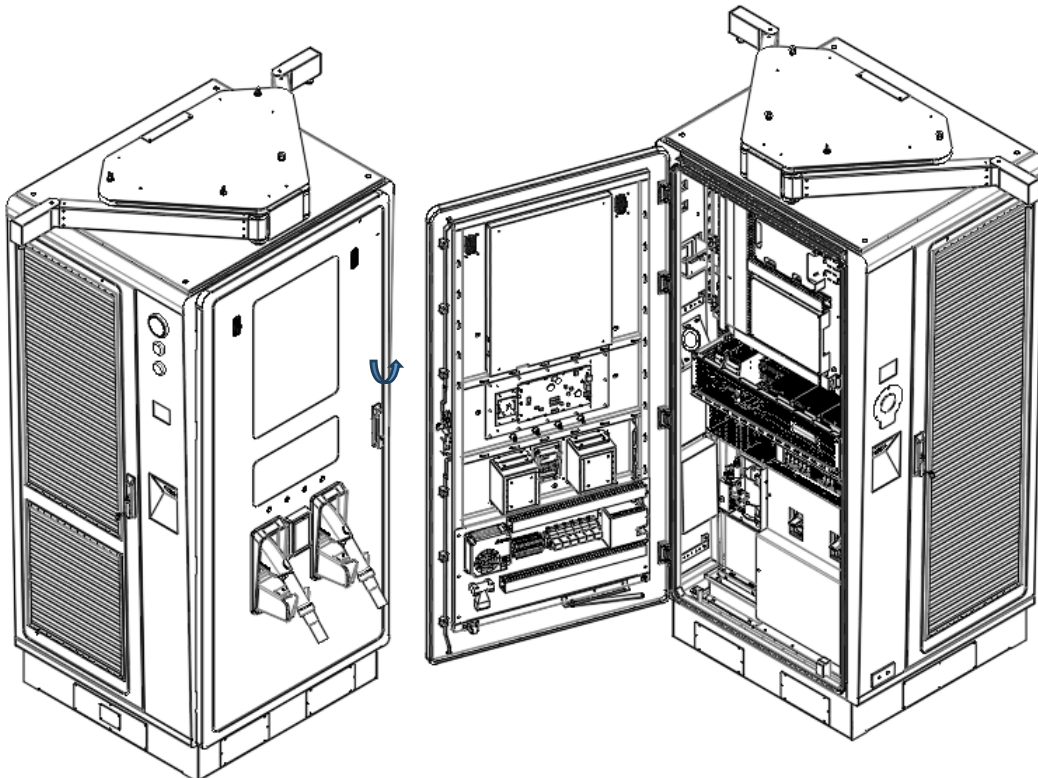


Figure 50 Open the cabinet door

#### 6.4.2 Turn off the circuit breaker and air switch.

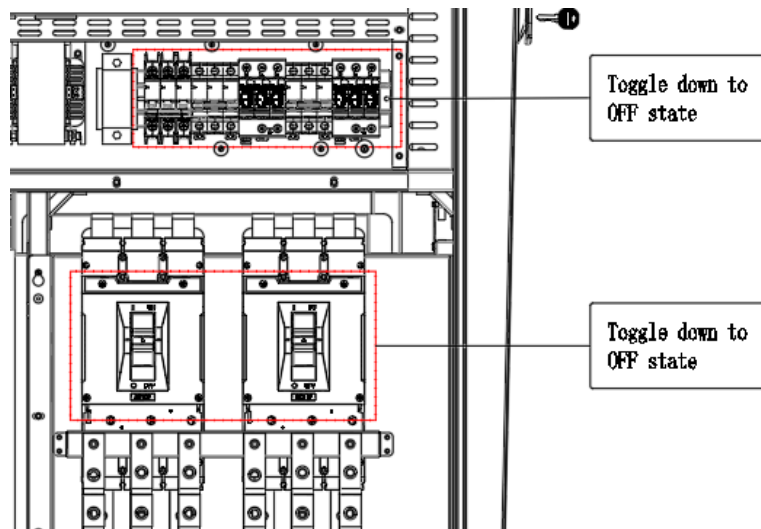


Figure 51 Off switch

#### 6.4.3 Close the cabinet door, turn the door lock handle to the right, and lock the cabinet door.

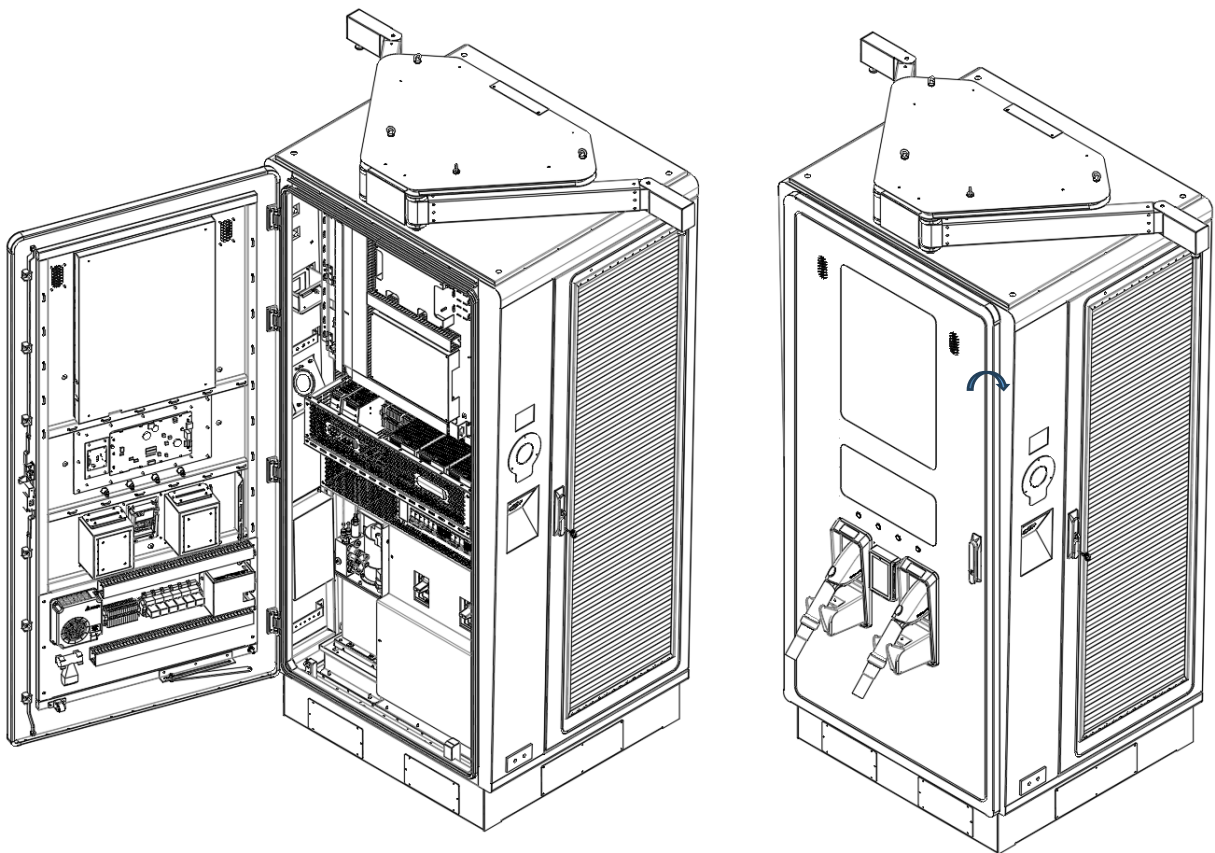


Figure 52 Close the cabinet door

## 6.5 Emergency operation

### 6.5.1 Emergency stop function

Refer to this section only when there is an abnormality or mis-operation

In case of emergency, quickly remove the transparent protective cover, press the red "emergency stop button", and the system will cut off the output power. Do not use the "emergency stop button" during normal shutdown

### 6.5.2 Position of emergency stop button

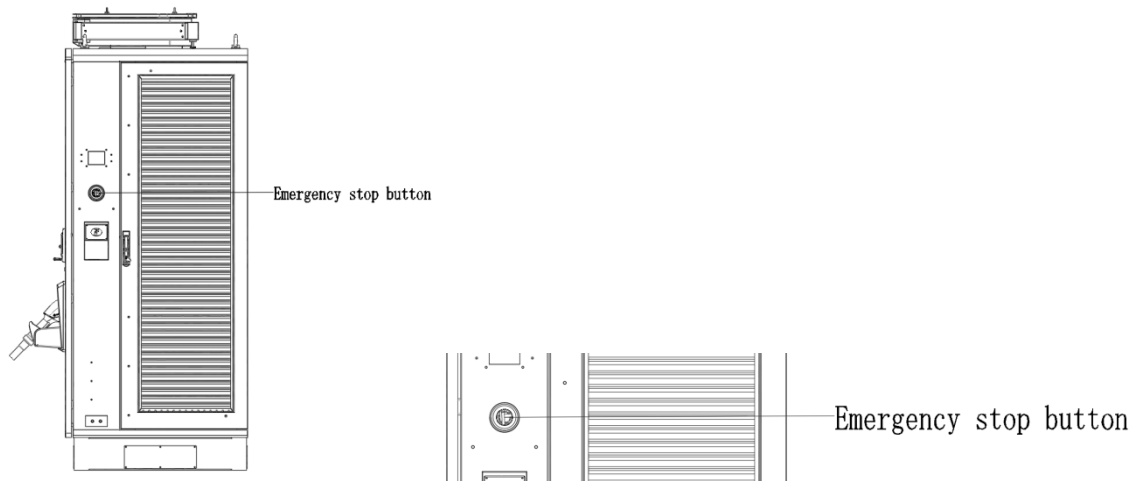


Figure 53 Emergency stop button

### 6.5.3 Emergency stop reset

Turn the emergency stop button clockwise to reset

## 7. Product transportation and storage

Our products will be shipped with the charging post fixed on a pallet, using pearl cotton and wrapped tightly around any parts that may come into contact with it. During the transportation process, please take it lightly, do not drop it, do not make violent impact on it.

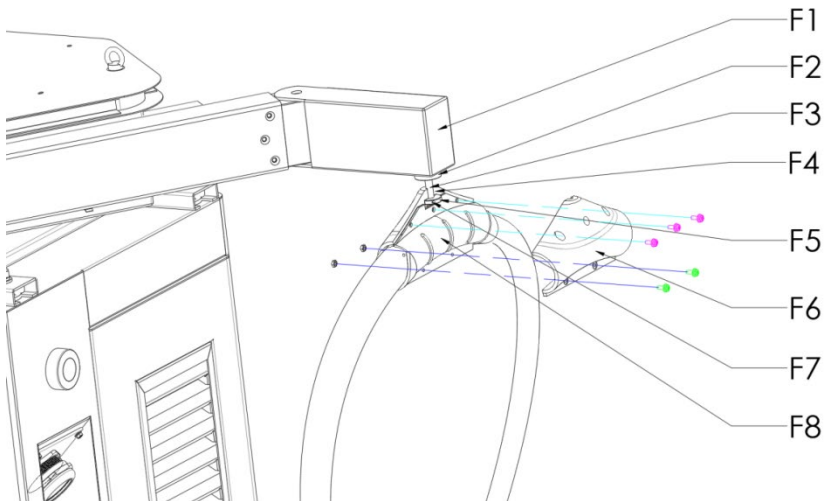
When storing the product, please put it in a dry environment and store it in an ambient temperature between  $-40^{\circ}\text{C}$ ~ $85^{\circ}\text{C}$ . The storage place should be kept clean and ventilated.

## 8.Completion data

No.	File name	Page	Document necessity
1	unpacking record sheet	1	√
2	Pre-Installation Checklist	1	√

## Appendix 1 Installation of swing arm assembly (optional swing arm is required)

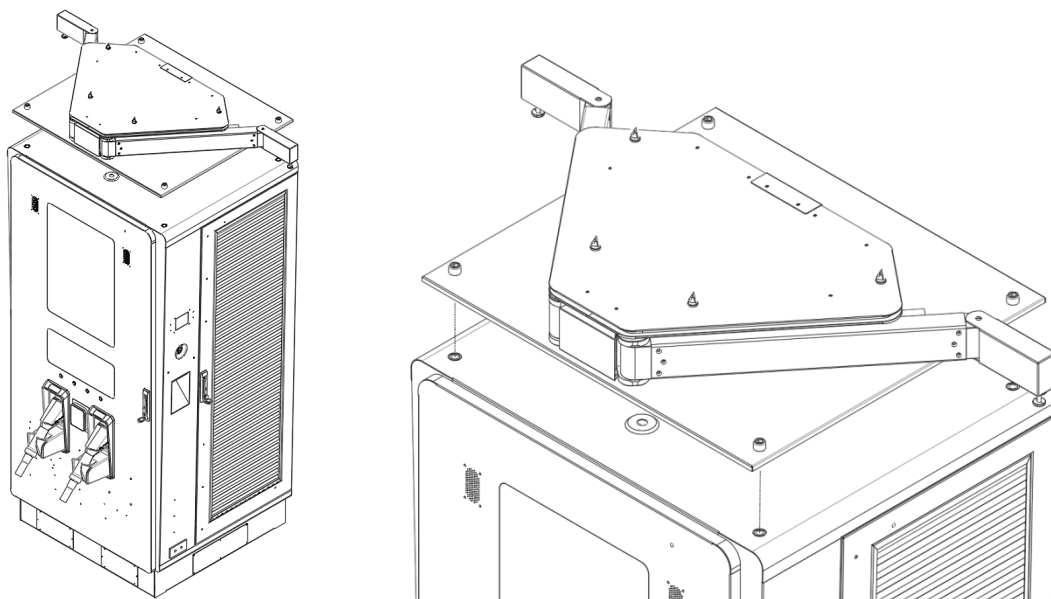
### 1. Parts introduction



Attached Figure 1 Introduction to swing arm assembly components

F1	Swing arm minor axis	F2	Cardan shaft fixing bracket	F3	Cardan shaft	F4	Chuck
F5	Cable support left bracket	F6	Pin	F7	Gun line apron	F8	Cable support right bracket

2. Connect the components with the body according to the figure below, and fasten 4 screws (M16\*30). Use 95.5N·M torque.

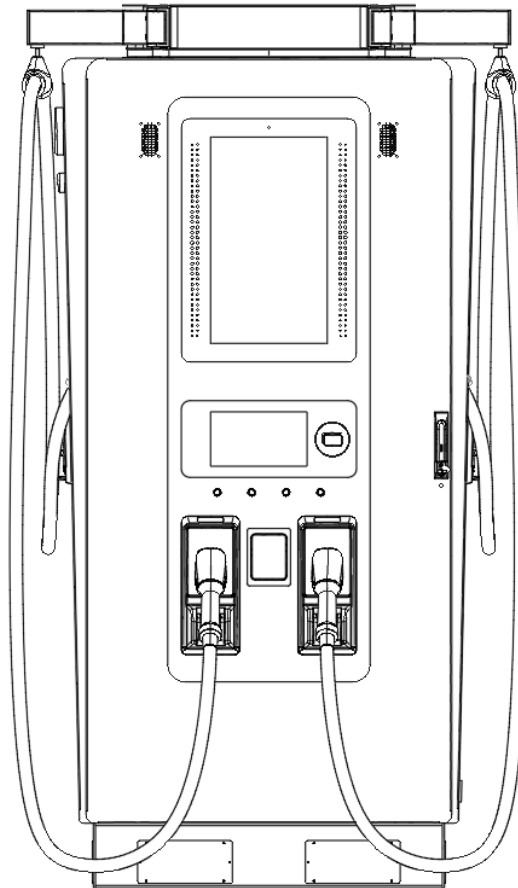


Attached Figure 2 Installation drawing of swing arm assembly and cabinet

## Fix the gun line to the swing arm line card.

- 2.1 Use the cardan shaft fixing bracket to fix the cardan shaft to the short shaft of the swing arm.
- 2.2 Fix the 2 chucks to the cardan shaft with pins.
- 2.3 Put the gun line rubber ring on the gun line about 2m away from the gun line outlet, and snap the gun line rubber ring to the left bracket of the line holder.
- 2.4 Hang the left bracket of the wire support on the chuck.
- 2.5 Close the right bracket and the left bracket of the wire support, and lock them with M4 screws and M4 nuts.
- 2.6 The gun line is fixed.

Recommended distance: the distance from the cable outlet at the cabinet end to the line card of the swing arm is 2 meters, and the distance from the gun head to the line card of the swing arm is 3 meters.



Attached Figure 3 is a diagram of the cable position and distance of the line card

## Appendix 2 Unpacking record sheet

Unpacking record sheet						
Dealer store name				Unpacking date		
Serial No.	Name of Goods	Actual goods	Qty	Certificate No.	Equipment	Remarks
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
Unpacking conclusion						
signature field	Installation Unit				Owner unit	



## Appendix 3 Pre-installation checklist

Pre-installation checklist				
Project name:				
Civil construction:			Equipment installation unit:	
Sub-project	No.	Main acceptance items	Acceptance record	Treatment measures
Installation plan	1	Whether the installation of on-site equipment conforms to the design drawings of the construction plan		
Distribution box circuit breaker	1	Meet the equipment installation requirements (The minimum input current of the two power supplies is 228A)		
Cable type	1	2* (AWG 2/0 * 3 + AWG 2 * 1)		
Cement foundation	2	Network cable cat6a (if Ethernet communication is required)		
maintenance channel	1	Dimensions meet the requirements		
Sub-project	2	The foundation bolts meet the requirements of chapter 2.6 in the installation manual		
Installation plan	1	Maintenance access meets the equipment spacing requirements in Section 2.7		
Conclusion:				
Note: (1) The acceptance record is filled with "√" or "×" according to the on-site situation; (2) The conclusion is filled with "qualified" or "required rectification" according to the on-site situation				
Signature of the person in charge of inspection: _____				
Date: _____				



## Appendix 4 List of Toxic and Hazardous Substances and Elements

Part Name	Toxic and hazardous substances or elements					
	Lead	Hg	Cadmium	Hexavalent chromium	PBB	polybrominated diphenyl ethers
	Pb	Hg	Cd	Cr6+	PBB	PBDE
Cabinet/subrack/copper bar	○	○	○	○	○	○
charging module	○	○	○	○	○	○
monitoring module	○	○	○	○	○	○
Power distribution device	○	○	○	○	○	○
made board	○	○	○	○	○	○
Hardware	○	○	○	○	○	○
cable	○	○	○	○	○	○
<p>○: Indicates that the content of the toxic and hazardous substance in all homogeneous materials of the part is below the limit requirement stipulated in SJ/T-11363-2006</p> <p>×: Indicates that the content of the toxic and hazardous substance in at least one homogeneous material of the part exceeds the limit requirement stipulated in SJ/T11363-2006</p>						
<p>The following components or applications contain toxic and hazardous substances, which cannot be reliably replaced or mature solutions are limited by the current technical level:</p> <ol style="list-style-type: none"> <li>1. Solder Contains Lead</li> <li>2. Copper alloys contain lead</li> <li>3. The contacts of the switch contain cadmium</li> <li>4. Mercury in backlight tubes; lead in glass</li> </ol>						
<p>Explanation on the environmental protection use period: the environmental protection use period of this product (marked on the product body) refers to the toxic and harmful substances contained in this product from the date of production under normal use conditions and compliance with the safety precautions of this product. The period during which a substance or element will not have serious effects on the environment, persons and property</p>						
<p>Scope of application: integrated connector charging station</p>						