



# **SEC 80kW Series DC Fast Charger**

## **User Manual**

Issue 01

Date 2024-02-20

© Copyright 2024 Manufacturer. All rights reserve



## Disclaimer

Manufacturer shall not be liable for any consequence caused by any of the following events:

- Out of warranty coverage.
- Not installed and used in accordance with the requirements of the manual, resulting in damage or failure of the product.
- Failure to implement relevant local codes and standards, resulting in product damage or failure.
- Incorrect transportation, removal, storage, installation, or use.
- Natural wear and tear or galvanic corrosion resulting from the operation of the equipment.
- Unauthorized changes to the original design of the product, resulting in damage or failure of the product.
- Intentional or negligent damage or failure of the product.
- Device damage due to force majeure (such as lightning, earthquakes, fire, and storms)
- Unauthorized modifications to the product nameplate or serial number or product appearance.
- Damage or malfunction of the product caused by improperly moving the device position.
- The customer, after receiving the contract equipment, ensure that it is placed reasonably, safely and without damage, and ensure that the location, environment and temperature are in line with the installation and storage conditions of the contract equipment, and that the storage time of the unpowered equipment should not exceed six months, otherwise it needs to be returned to the factory for a fee to detect aging.
- Customer caused by poor heat dissipation of equipment (such as improper customer installation location, not timely dust removal, etc.), equipment damage is not covered by our warranty.

## Notice

Before connecting the power supply, ensure that electrical connections are correct. Do not connect or disconnect power cables with power on.

Personnel who will operate the equipment, including operators, trained personnel, and professionals, should possess the local national required qualifications in special operations such as high-voltage operations, working at heights, and operations of special equipment.

## Foreword




### Reader Object

This document (this guide) is primarily intended for the following engineers:

- Technical Support Engineer
- Maintenance Engineer
- Engineering installation team

## Symbol Conventions

The following symbols may appear in this document and their description are as follows.

Symbol	Description
	<b><i>DANGER</i></b> Dangerous Voltage Dangerous voltages can cause death or injury.
	<b><i>WARNING</i></b> Hazard Warning May cause equipment damage and personal injury.
	<b><i>ATTENTION</i></b> Cause of Hazard Failure to comply may result in equipment damage or functional failure.










# Table of Contents

<b>1</b>	<b>Safety Precautions</b>	<b>1</b>
1.1	Special symbols for warnings and dangers	1
1.2	Safety instructions for use	2
1.3	Safety instructions for operation	2
<b>2</b>	<b>Product Overview</b>	<b>3</b>
2.3	Product types description	5
2.4	Product views	6
2.5	Product characteristics	7
2.6	Parameter table of product specifications	8
2.7	Protection device parameters	10
<b>3</b>	<b>Installation instructions</b>	<b>11</b>
3.1	Equipment dimensions	11
3.2	Equipment installation requirements	12
3.3	Construction of distribution cables	13
3.3.1	Layout requirements of distribution cables	13
3.3.2	Process requirements of distribution cables	14
3.3.3	Cable specifications for AC input (Recommended)	15
3.3.4	Internal wiring diagram of equipment	16
3.4	Installation steps of charging equipment	17
3.4.1	Unpacking the outer package of the cabinet	18
3.4.2	Foundation drilling	19
3.4.3	Placing charger	21
3.5	Inspection after installation	24
3.6	Special version	25
<b>4</b>	<b>Operation interface</b>	<b>26</b>
4.1	Charging process	26
4.1.1	Standby interface	26
4.1.2	Waiting for connector insertion interface	26
4.1.4	Select charging mode interface	27
<b>5</b>	<b>Simple troubleshooting</b>	<b>33</b>

6    After-sales service ..... 34

# 1 Safety Precautions

## 1.1 Special symbols for warnings and dangers

Symbol	Symbol word	Description
	<b><i>Danger</i></b>	Since some parts of this power system are under high voltage during operation, it is fatal for direct contact or indirect contact with these parts.
	<b><i>Danger</i></b>	Construction operation of high voltage lines may cause fire or electric shock. The wiring area and the area where the line passes through for AC cables must comply with National regulations and norms. Only personnel who are qualified to work with high DC and AC voltage are allowed to install and maintain the DC Charger.
	<b><i>Danger</i></b>	It is strictly forbidden to carry out live installation and maintenance work during thunderstorms.
	<b><i>Danger</i></b>	During operation, it is strictly forbidden to short-circuit the positive and negative of the DC Charger DC distribution or short-circuit any DC distribution polarity to Ground. The DC Charger is a high voltage DC power supply, and short circuits may cause damage to the DC Charger and personal safety hazards.
	<b><i>Warning</i></b>	Special tools must be used during various operations of high DC and AC voltages.
	<b><i>Warning</i></b>	During the handling of equipment by hand, it is necessary to wear protective gloves to prevent injuries caused by sharp objects.
	<b><i>Attention</i></b>	Make sure that the cable label is correct before the connection of cables.
	<b><i>Attention</i></b>	Signal cables should be kept away from power cables, protection from interference.
	<b><i>Attention</i></b>	Unable to relate to household's environment.

## 1.2 Safety instructions for use

- The SEC products are a series of integrated/distributed equipment that you can use to supply power to electric vehicles whether indoors or outdoors.
- The SEC products are high power and high voltage level equipment. Only qualified workers are allowed to conduct construction and maintenance.
- Please follow local laws and regulations when installing, operating and maintaining the equipment.
- Please follow the guidance of installation, operation and maintenance provided by the manufacturer.
- Please follow related safety standards on R&D, production, inspection, certification and filing locally if needed.
- To ensure personal and equipment safety, please pay attention to safety symbols on the equipment and safety instructions in this document. Otherwise, the device may encounter hidden dangers or malfunctions, or user's body may be harmed.
- If any problems or faults occur during use, please contact manufacturer after-sales service team or distributor. Manufacturer will not be liable for any issue caused by maintenance by unauthorized third party, even under warranty.
- Please make sure the equipment keeps enough distance from fire and other hazard operating condition.
- Please make sure the minimum distance between the equipment and the block is satisfied.

## 1.3 Safety instructions for operation

- Please read this document carefully before first use. Make sure the equipment is correctly installed and commissioned according to the instruction in the installation manual.
- Do not modify the product without authorization. Manufacturer will not be liable for any consequences caused by the violation of the safety operation regulations and usage standards.
- Do not touch the EV charging connector, keep it dry and clean.
- Do not use this product if the power cable or connector has any worn-out, copper wire exposure or any other signs of being damaged.
- In case of any emergent situation, press the emergency button immediately, which will shut down the whole equipment to ensure safety. The system operator should be informed if the emergency button is pressed. The charging station shall not be restarted until operation technician resets the system.
- Please make sure no foreign matters are stuck in the EV charging connector.
- Please do not connect or disconnect the power cable when powered on. Disconnect the circuit breaker switch and set up a warning area when performing maintenance.



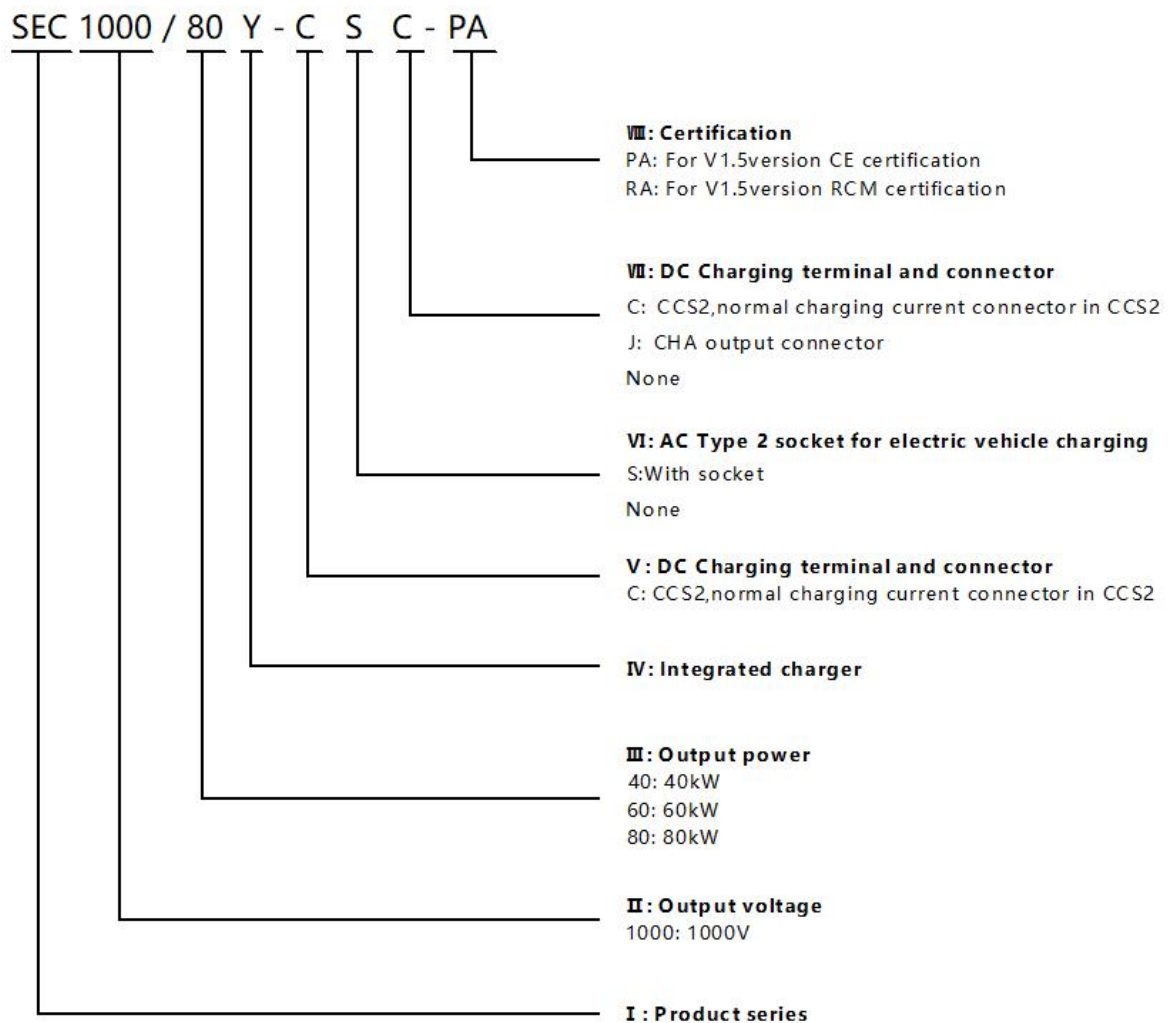
- Pay attention! The copper wire carries dangerous voltage from the equipment even after all circuit breakers of the charger have been disconnected.
- Please prepare lighting sources when conducting maintenance since no power source is available from the charger.
- Connect protective earth wire (PE) before connecting neutral line and phase wire.
- After installation or maintenance, ensure that door are locked correctly.
- Please do not use any adaptors, conversion adapters or extension cords.

## 2 Product Overview

### 2.1 Brief description

The SEC is an integrated DC fast charger featuring high efficiency and flexible configure solution. It supports CCS2 & CHAdeMO dual connector to charge at the same time with an optional Type 2 charging socket. Used in centralized fast charging station, the product adopts 20kW charging power module, satisfying the capacity demand as well as flexibility demand on the market.

### 2.2 SEC series products model

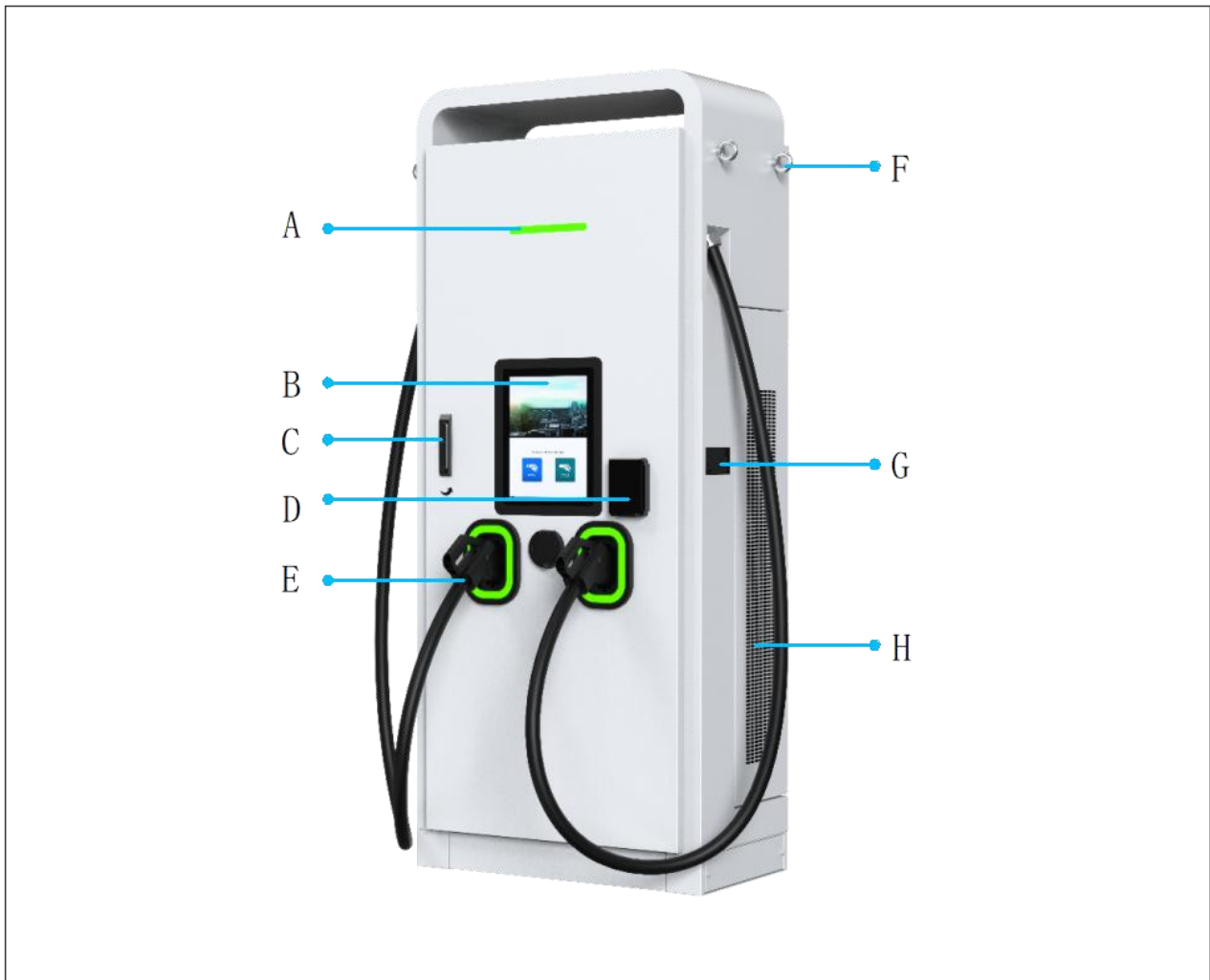


## 2.3 Product types description

Specification	Power distribution			Maximum current		
	Connector A	Connector AC	Connector B	Connector A	Connector AC	Connector B
SEC1000/40Y-C-PA	40kW	/	/	134A	/	/
SEC1000/40Y-CJ-PA	20kW or 40kW	/	20kW or 40kW	134A	/	125A
SEC1000/40Y-CC-PA	20kW or 40kW	/	20kW or 40kW	134A	/	134A
SEC1000/40Y-CS-PA	40kW	22kW	/	134A	32A	/
SEC1000/40Y-CSJ-PA	20kW or 40kW	22kW	20kW or 40kW	134A	32A	125A
SEC1000/40Y-CSC-PA	20kW or 40kW	22kW	20kW or 40kW	134A	32A	134A
SEC1000/60Y-C-PA	60kW	/	/	200A	/	/
SEC1000/60Y-CJ-PA	40kW or 60kW	/	20kW or 60kW	200A	/	125A
SEC1000/60Y-CC-PA	40kW or 60kW	/	20kW or 60kW	200A	/	200A
SEC1000/60Y-CS-PA	60kW	22kW	/	200A	32A	/
SEC1000/60Y-CSJ-PA	40kW or 60kW	22kW	20kW or 60kW	200A	32A	125A
SEC1000/60Y-CSC-PA	40kW or 60kW	22kW	20kW or 60kW	200A	32A	200A
SEC1000/80Y-C-PA	80kW	/	/	200A	/	/
SEC1000/80Y-CJ-PA	40kW or 80kW	/	40kW or 62.5kW	200A	/	125A
SEC1000/80Y-CC-PA	40kW or 80kW	/	40kW or 80kW	200A	/	200A
SEC1000/80Y-CS-PA	80kW	22kW	/	200A	32A	/
SEC1000/80Y-CSJ-PA	40kW or 80kW	22kW	40kW or 62.5kW	200A	32A	125A
SEC1000/80Y-CSC-PA	40kW or 80kW	22kW	40kW or 80kW	200A	32A	200A
For -PA and -RA products, the parameters are the same except for the certification						

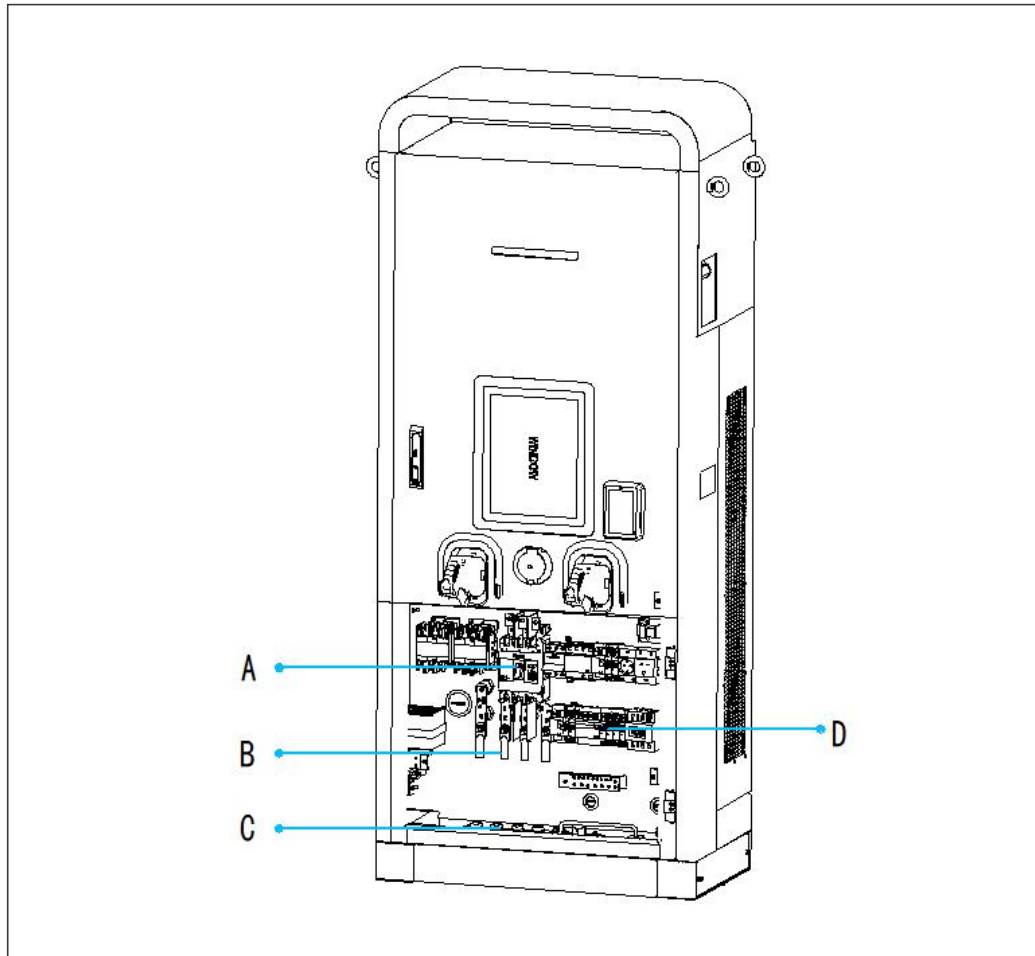
## 2.4 Product views

### Outside view of the SEC series DC fast charger



A	Status LED	E	Charging connector
B	Human machine interface	F	Eye bolts for lifting
C	Door handle/ lock	G	Reserve for DC meters
D	Pay card reader	H	Air inlet

## Inside view of the SEC series DC fast charger



A	Main Circuit Breaker	C	Inlet hole
B	AC inlet copper row	D	Circuit Breaker for AC Type 2 socket

## 2.5 Product characteristics

- A variety of power configurations from 40kW to 80kW can meet the customized requirements of customers. And more flexible power distribution, the model with dual DC connectors can automatically switch the power according to the vehicle demand, which can meet the rapid charging of two vehicles at the same time.
- The charging system is built in the form of DC and AC to meet the charging demand of fast charging and slow charging, thus multiple charging points can be provided to support charging at the same time. Among them, the AC connector power and DC connector power are output separately, which do not affect each other and improve the charging experience.

- The constant current and constant power charging methods have the advantages of high charging efficiency, simple operation and reliable performance.
- Ultra wide output voltage range, with the highest output voltage can reach DC1000V. It can not only meet the low-voltage charging of small cars, but also meet the charging requirements of buses and high-voltage vehicles.
- With overload, short circuit, leakage, lightning protection, overcharge, over voltage, under voltage, reverse connection, over temperature and other multiple protection functions.
- Multiple supporting functions integrated: standard connector homing detection function; and supports optional functions such as flooding detection, smoke detection, tilt detection, etc. provides protection for the installation and use of charger; also supports optional heaters to support the use of charger installed in cold areas.
- The intelligent standby mode can effectively reduce the operation cost of customers in the whole project life cycle, and improve the return rate of station charging.
- The cabinet shell is made of stainless steel with protection grade of IP55, which can be applied to various outdoor environments. At the same time, the overall new design of the cabinet is smaller and more compact, which can save floor space, thus more suitable for the arrangement of charger in operating stations.

## 2.6 Parameter table of product specifications

Specification		
Category	Item	Parameter
Input Characteristic	Input	3P+N+PE
	Input Voltage	AC 380~400V
	Frequency	50/60Hz
	Power Factor	0.99
	THDi	<5%
Output Characteristic	Output Voltage	CCS2 : 200-1000 Vdc CHA : 200-500Vdc Type2 AC socket: AC 380~400V
	Rated power	40-80kW (DC connector output power) 22kW (Type2 AC socket output power)
	Max Current	CCS2 : 200A CHA : 125A Type2 AC socket:32A
	Peak Efficiency	96% @ peak efficiency
	Connector Type	IEC 62196
Standards	System Standards	IEC 61851

Specification		
Category	Item	Parameter
Others	Energy meter	High precision meter
	Number of connectors	1 connector: CCS 2; 2 connectors: CCS 2 + CHA or CCS 2 + CCS 2 1 connector+socket: CCS 2 +Type 2 AC Socket 2 connector+socket: CCS 2+ Type 2 AC Socket+CHA or CCS 2+ Type 2 AC Socket + CCS2
	Network Interface	4G/LAN
	Size	W850*D500*H2030 mm
	Protection level	IP55/IK10
	Weight	390kg
	Cable length	5m ( Exposed cable length is 4.5m )
	Communication protocol	OCPP1.6J
	Display Screen	15 inches
	Method of payment	QR Code/RFID/NFC/Bank card ( Optional )
	Language	English
Environmental conditions	Cooling method	Forced air cooling
	Full power operating temperature	-25 ~ 65 °C( Derating operation over 50°C )
	Humidity	5%~95%
	Altitude	≤2000m
Protection		DC Over current protection Surge Protection Device Emergency Stop Protection Overload protection Short circuit protection Electric leakage protection Overcharge protection Over voltage protection Under voltage protection Reverse connect protection Over temperature protection

## 2.7 Protection device parameters

Name	Main Circuit Breaker			
Item	Rated current (In)	Rated limit short-circuit breaking capacity (Icu)	Rated residual current (IΔn)	Residual current type
80kW	180A	50kA	30mA	Type A
60kW	140A	50kA	30mA	Type A
40kW	100A	50kA	30mA	Type A

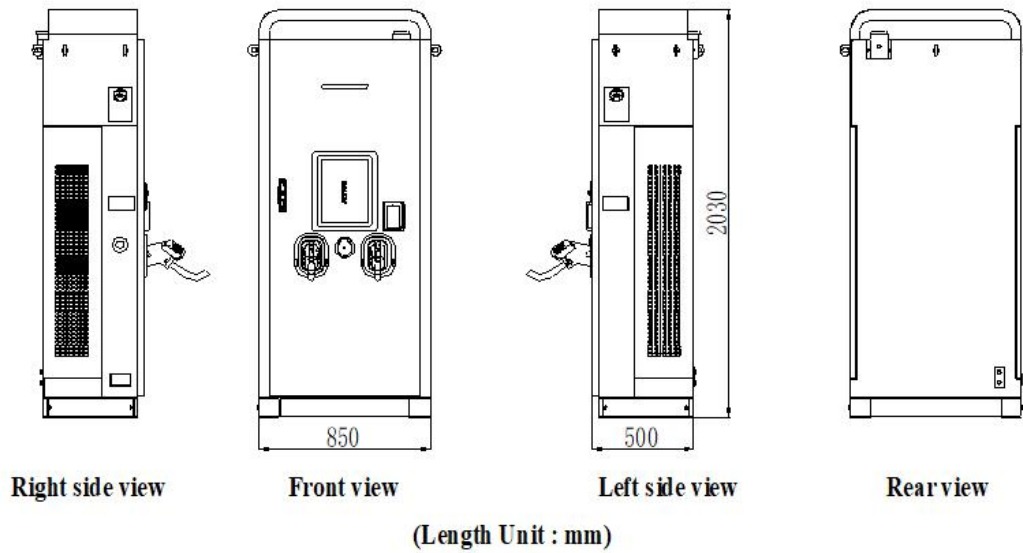
Name	Fuse		
Item	Rated current (In)	Rated voltage (Un)	Rated breaking capacity
For 200A connector	315A	1000V	50kA



## 3 Installation instructions

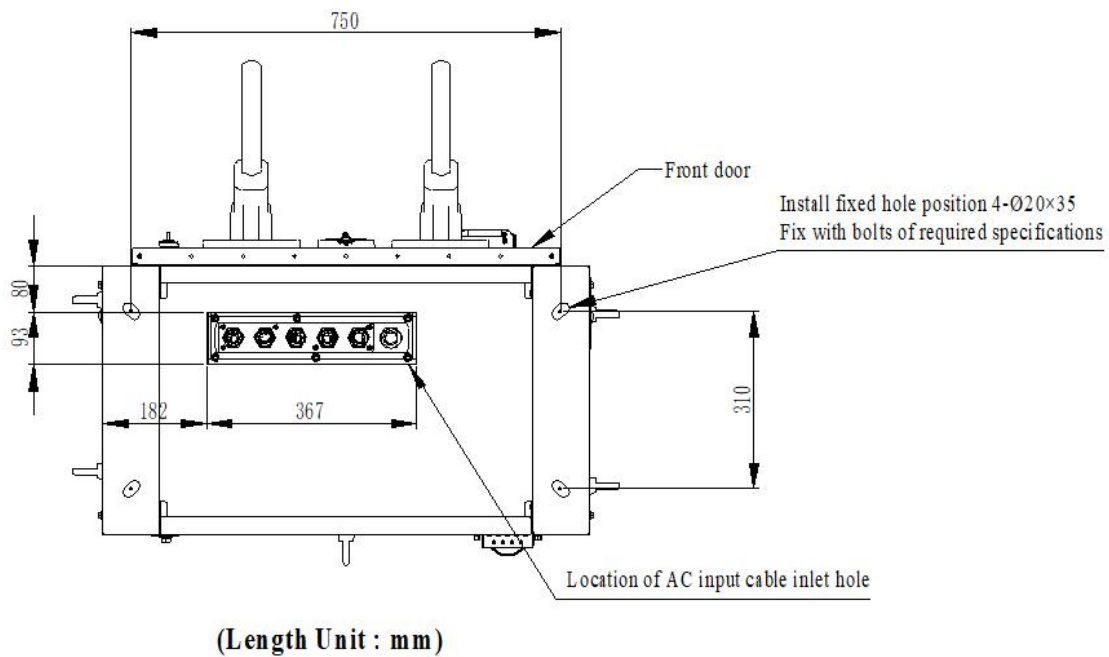
### 3.1 Equipment dimensions

1. The figure and dimension of the charger are shown in **Figure 3.1-A**.



**Figure 3.1-A Outline and dimension of charger**

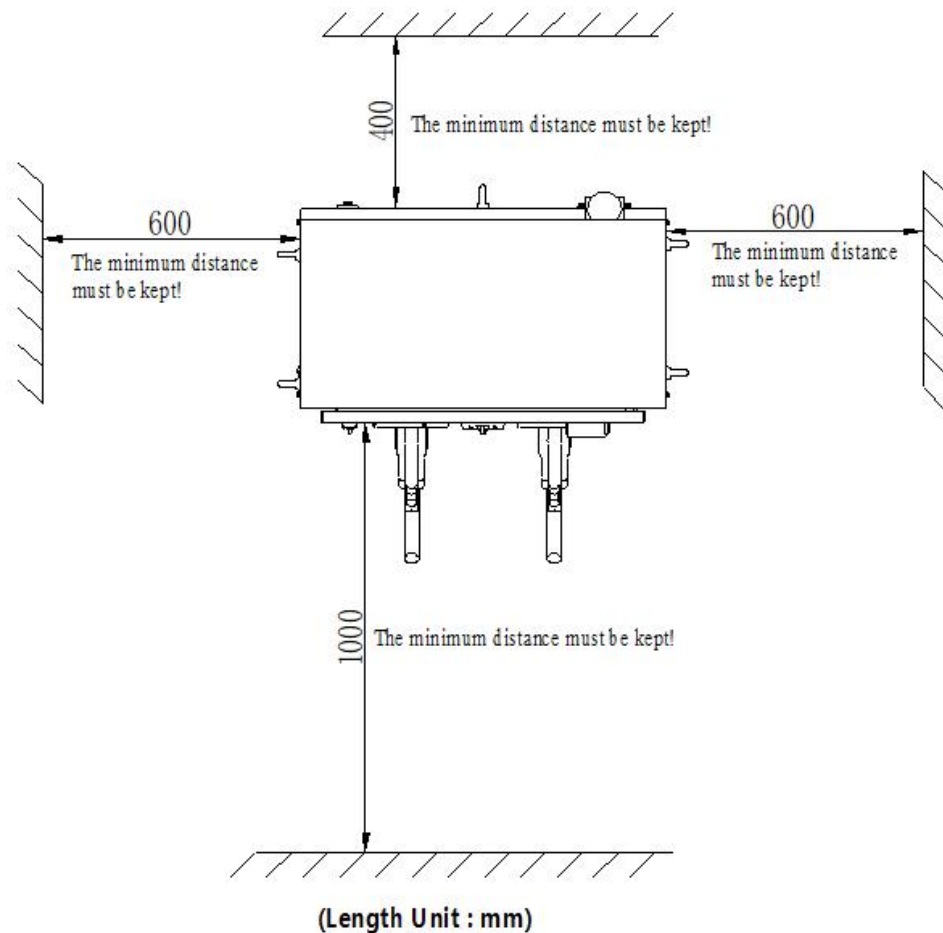
2. The hole size of charger base is shown in **Figure 3.1-B**.



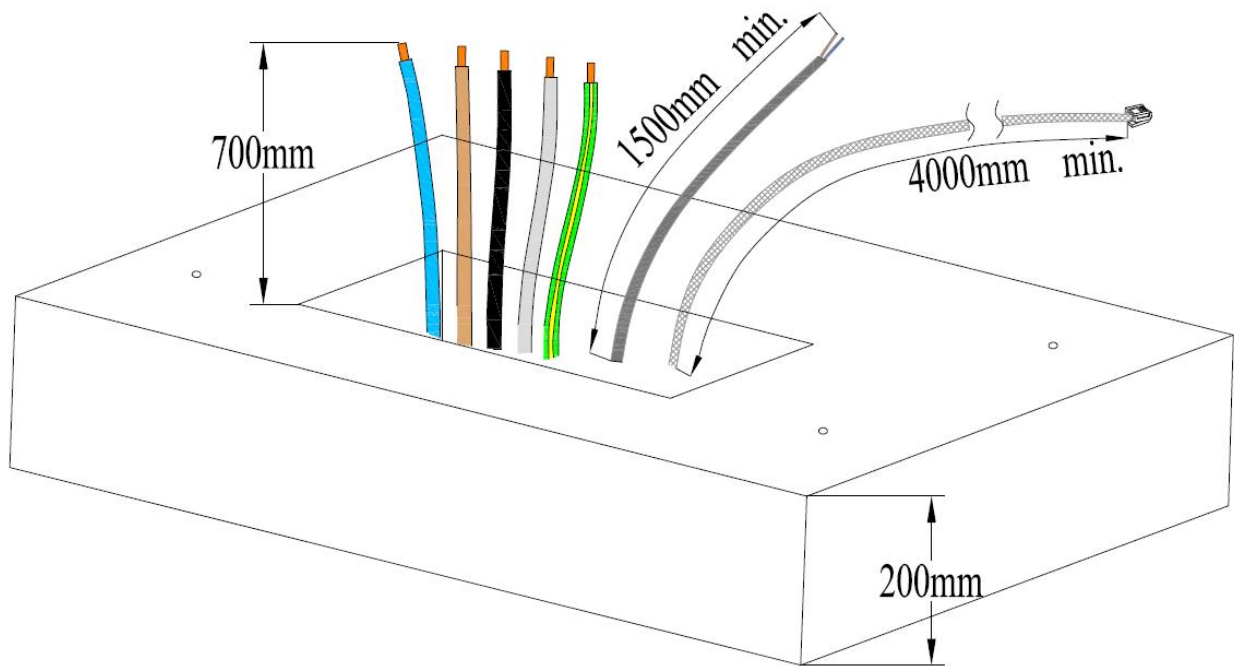
**Figure 3.1-B Hole size of charger base**

## 3.2 Equipment installation requirements

1. Open the charger package box and put the charger to its right place, make sure the connectors can be used normally from any side. Installation space should be reserved. See **Figure 3.2-A**.
2. Install on a channel steel or concrete base. The cable shall be buried in the middle in advance. The reserved length of the ethernet cable should be no less than 4000mm, the reserved length of the control signal cable should be no less than 1500mm, the reserved length of the power cable should be  $700\text{ mm} \pm 20\text{ mm}$ , and the drilling diameter of the base through which 5 wires go through shall be less than 30 mm, as shown in **Figure 3.2-B**;
3. The height of the installation foundation is recommended to be  $200\text{ mm} \pm 20\text{ mm}$ , and the vertical inclination of the installation shall not exceed  $5^\circ$ . See **Figure 3.2-B** for details.
4. Install 4 stainless steel M12 \* 80mm expansion bolts between the base and the cabinet. Note that the bolts need to be equipped with M12 stainless steel flat gasket.



**Figure 3.2-A Requirements for charger placement**



**Figure 3.2-B Base and cable reservation requirements**

### 3.3 Construction of distribution cables

#### 3.3.1 Layout requirements of distribution cables

1. The input cable of the system is introduced from the inlet hole at the bottom of the charger, and the cable shall be laid through the cable trench.
2. The AC cable adopts copper core wire, and the cross-sectional area of the cable shall adapt to the load.
3. The outdoor power cable shall be laid according to the power specification. The power cable and the signal cable must be separated, and the signal cable should be put through the tube separately to avoid the pressure loss and interference of the communication signal.
4. The cable shall not be laid in the area easily damaged by mechanical damage, corrosive medium emission, humidity, strong magnetic field and strong electrostatic field interference. If necessary, please take corresponding protection or shielding measures.
5. The AC input cable starts from the user's distribution switch and connects to the copper bar of the charger's inlet cable switch. Protection devices shall be provided at the user's power distribution.

### 3.3.2 Process requirements of distribution cables

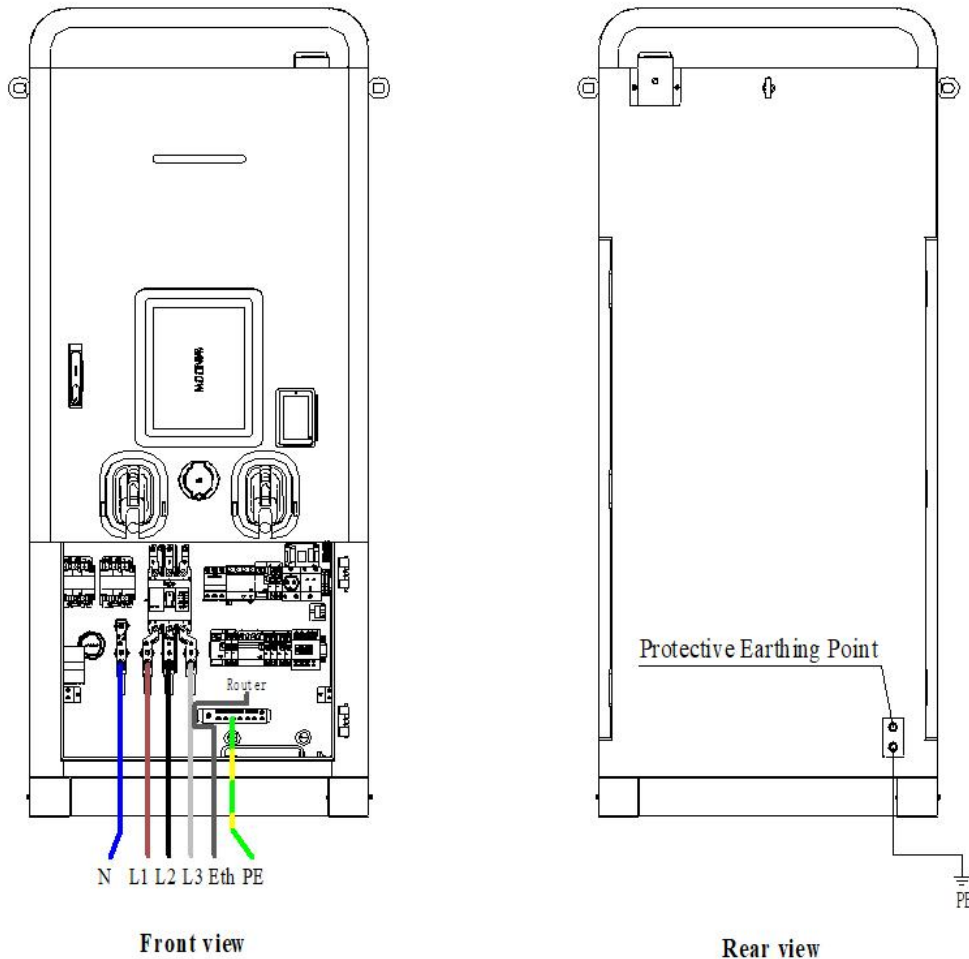
1. Cable laying shall be free from external force, distortion and damage of insulation layer.
2. It is strictly forbidden to twist, flatten, break the protective layer and wear the protective layer seriously.
3. The protective pipe shall be cleaned before the cable passes through the pipe, and the wire shall not be damaged.
4. The cable arrangement shall be tidy. The binding should be neat and should not be crossed.
5. Sufficient allowance (no less than 600mm) shall be reserved for each wire of the cable, and the bending degree shall be consistent.
6. Crimp the terminal of the cable head, and there should be no gap on the penetration surface of the terminal after crimping.
7. When pressing the lug of inlet cable, the heat shrinkable tube should be set between the cable and the lug, and the inside and outside of the tube should be smooth without damage and crack. Before setting the heat shrinkable tube, the sundries on the cable shall be removed, and there shall be no burr and iron filings on the surface to prevent damage to the tube. The color of the tube shall be in accordance with the phase sequence. When the tube is heat shrinkable, the flame should be avoided to spray on the inside of the cabinet to prevent burning the internal components and cables of the cabinet. The appearance of heat shrinkable casing should be flat, smooth, uniform shrinkage, no dust and crack.
8. Attention should be paid to the wiring sequence when pressing RJ45 connector for Ethernet cable. Check whether the pressing is qualified after pressing.

### 3.3.3 Cable specifications for AC input (Recommended)

Capacity (kW)	Cable specification	Capacity of superior distribution switch	Screw specification (diameter: mm)
40kW	Copper: 4*25mm <sup>2</sup> +16mm <sup>2</sup> Aluminium: 4*35mm <sup>2</sup> +25mm <sup>2</sup>	125A	L1/L2/L3/ N: M10 PE:M8
40kW+22kW	Copper: 4*35mm <sup>2</sup> +25mm <sup>2</sup> Aluminium: 4*50mm <sup>2</sup> +25mm <sup>2</sup>	160A	L1/L2/L3/ N: M10 PE:M8
60kW	Copper: 4*35mm <sup>2</sup> +25mm <sup>2</sup> Aluminium: 4*50mm <sup>2</sup> +25mm <sup>2</sup>	160A	L1/L2/L3/ N: M10 PE:M8
60kW+22kW	Copper: 4*50mm <sup>2</sup> +25mm <sup>2</sup> Aluminium: 4*70mm <sup>2</sup> +35mm <sup>2</sup>	200A	L1/L2/L3/ N: M10 PE:M8
80kW	Copper: 4*50mm <sup>2</sup> +25mm <sup>2</sup> Aluminium: 4*70mm <sup>2</sup> +35mm <sup>2</sup>	200A	L1/L2/L3/ N: M10 PE:M8
80kW+22kW	Copper: 4*70mm <sup>2</sup> +35mm <sup>2</sup> Aluminium: 4*95mm <sup>2</sup> +50mm <sup>2</sup>	225A	L1/L2/L3/ N: M10 PE:M8

### 3.3.4 Internal wiring diagram of equipment






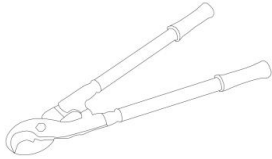
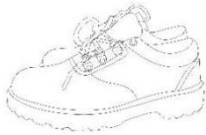
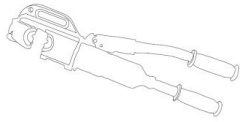

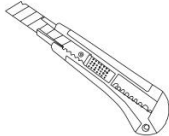
The internal input cables are N, L1, L2, L3, Eth, PE from left to right. The 'Eth' indicates a Ethernet cable. The cabinet grounding is divided into two parts, one is the grounding bar inside the cabinet, and the other is the grounding of cabinet shell, as shown in **Figure 3.4-A**.



**Figure 3.4-A Internal wiring diagram of charger**

### 3.4 Installation steps of charging equipment

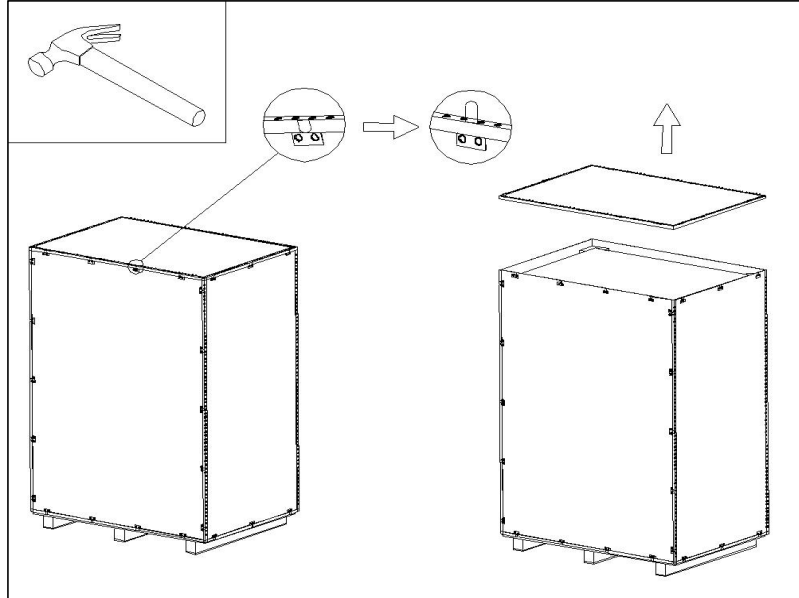
#### Tools required

S/N	Tools	Num	Drawing	S/N	Tools	Num	Drawing
1	Claw hammer	1		6	Cross screwdriver	1	
2	Herringbone ladder	1		7	Electric drill Equipped with $\phi$ 16mm drill bit	1	
3	Insulating gloves	1		8	Cable clipper	1	
4	Insulation shoes	1		9	Hydraulic clamp	1	
5	Adjustable wrench	1		10	Art knife	1	

### 3.4.1 Unpacking the outer package of the cabinet

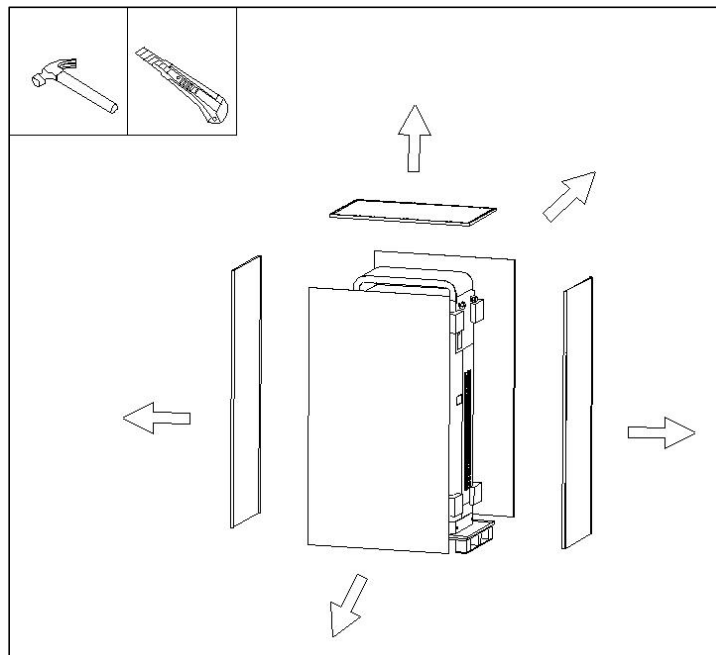
Tools required: herringbone ladder, claw hammer, art knife, protective gloves

- With the help of the herringbone ladder, straighten the metal card on the top of the packing material with a claw hammer, and remove the upper cover plate. As shown in **Figure 3.4.1-A**.



**Figure 3.4.1-A**

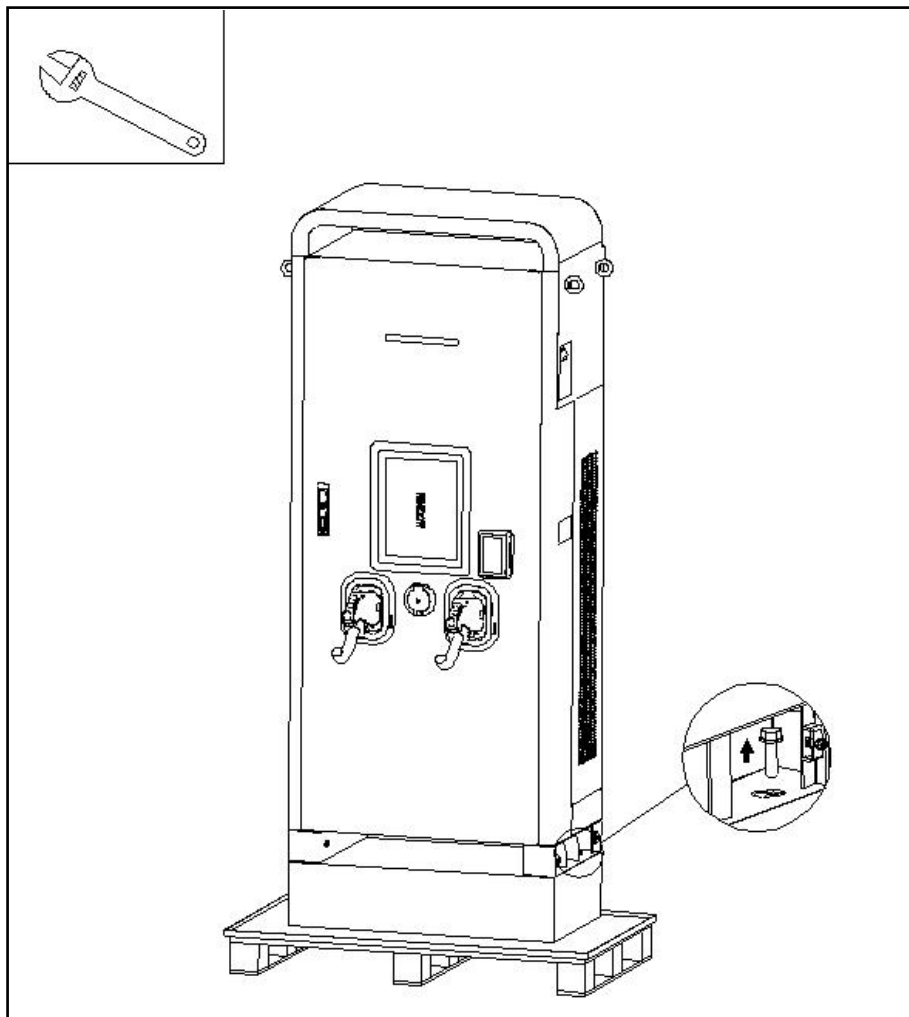
- Straighten all metal cards with a claw hammer, remove the surrounding wood boards, cut the PE bags wrapped around the cabinet with the art knife, and remove the PE bags and foam. As shown in **Figure 3.4.1-B**.



**Figure 3.4.1-B**



- Use a wrench to remove the four M12 bolts around the base, as shown in **Figure 3.4.1-C**.

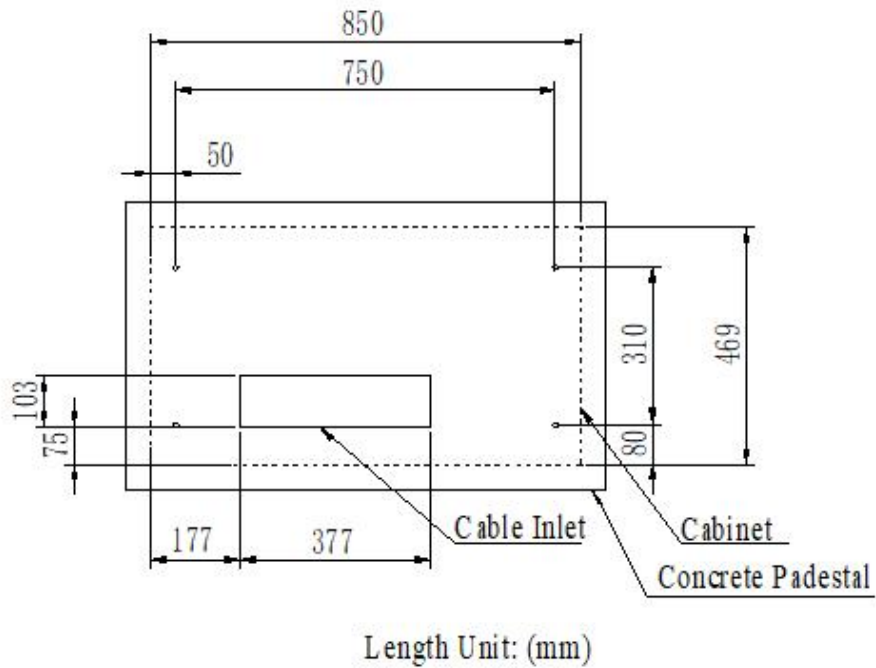


**Figure 3.4.1-C**

## 3.4.2 Foundation drilling

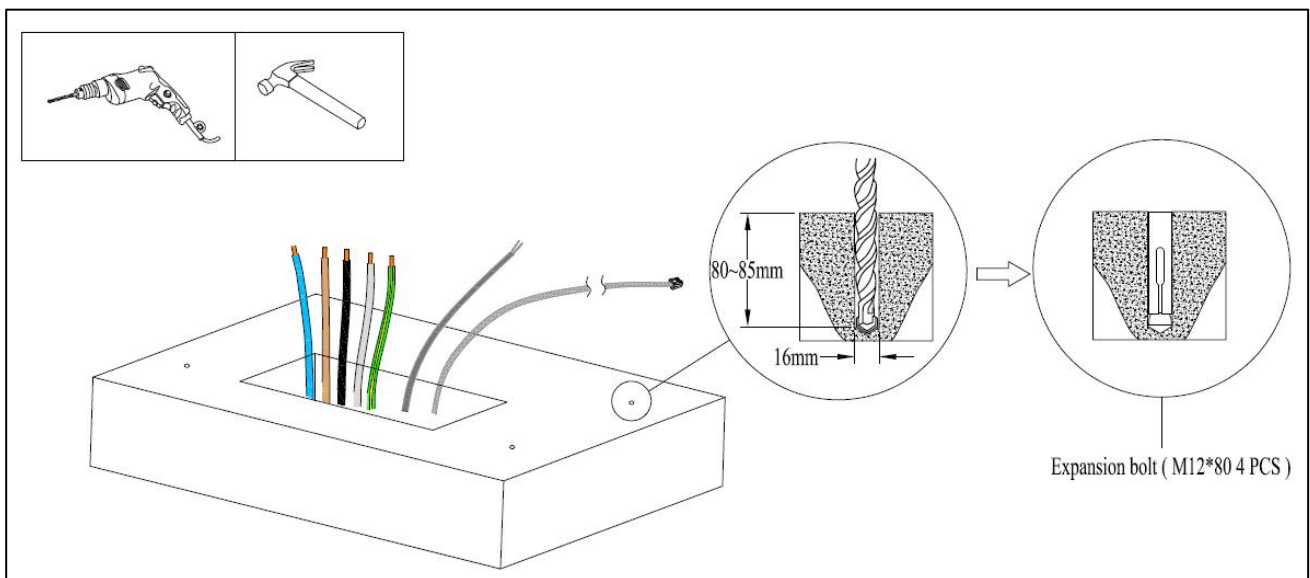
Tools required: electric drill,  $\phi 16\text{mm}$  drill bit, protective gloves

- The hole size is shown in **Figure 3.4.2-A**.



**Figure 3.4.2-A**

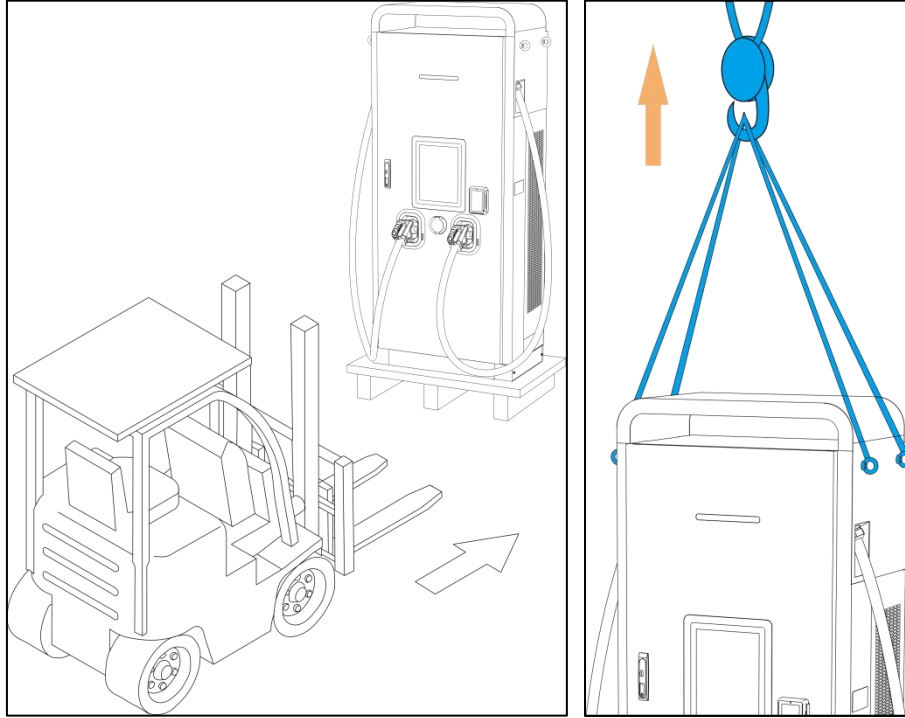
- Drill four mounting holes with a diameter of  $\phi 16$  mm and a depth of 80-85 mm on the cement mounting base with an electric drill corresponding to the hole position.
- Knock four M12 \* 80 expansion bolts into the holes with a claw hammer, and then screw out the screw part, so that the expansion bolt casing is embedded in the base mounting hole. As shown in **Figure 3.4.2-B**.



**Figure 3.4.2-B**

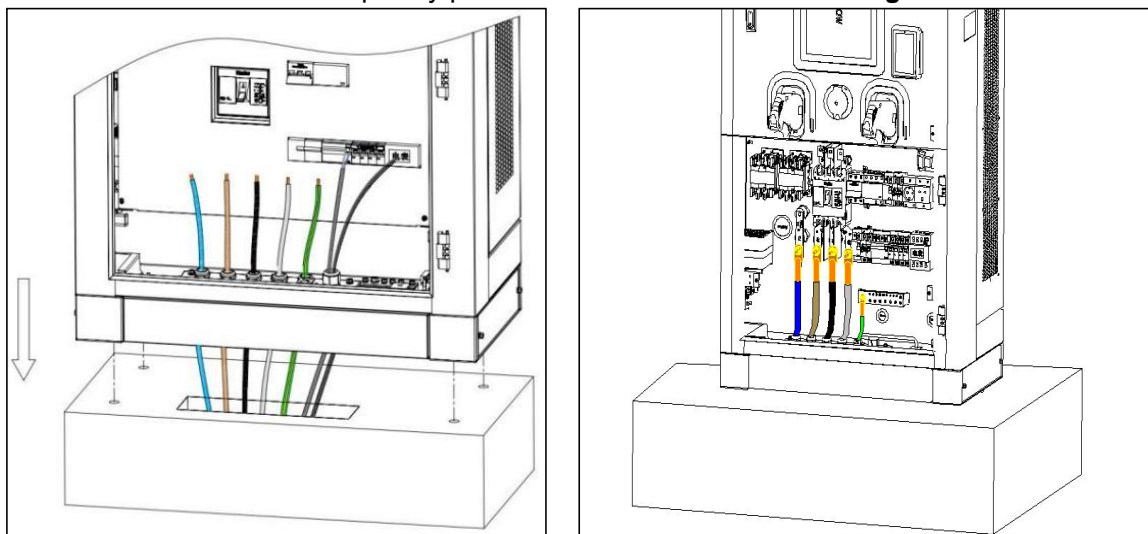
### 3.4.3 Placing charger

- Use forklift to transport the cabinet to the installation base, and use the crane to lift the cabinet. It is shown in **Figure 3.4.3-A**.



**Figure 3.4.3-A**

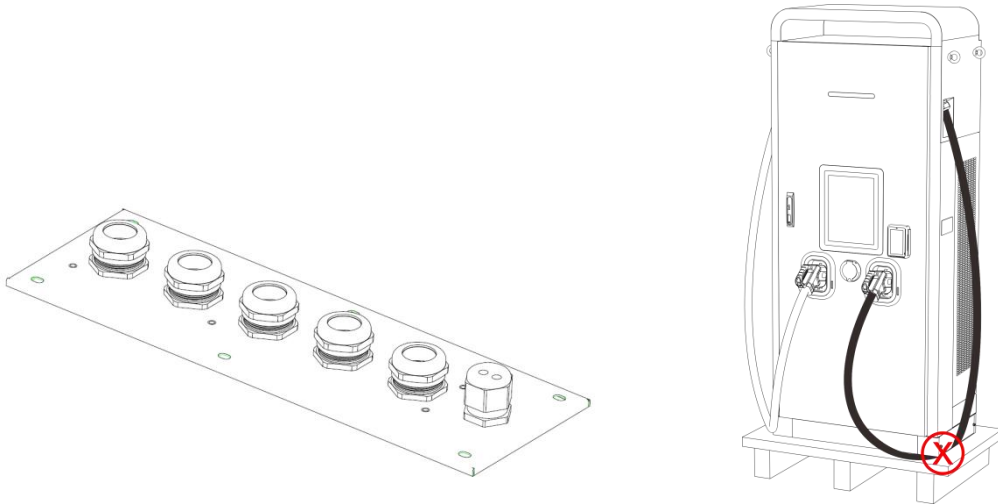
- Suspend the cabinet above the cement base, open the front door of the cabinet, and extend the embedded cable from the bottom of the cabinet through the inlet hole (the rubber film of the inlet hole needs to be punctured). At this time, slowly lower the cabinet and pull the remaining cables out from the front door until the cabinet is completely placed on the base. As shown in **Figure 3.4.3-B**.



**Figure 3.4.3-B**

**Note:**

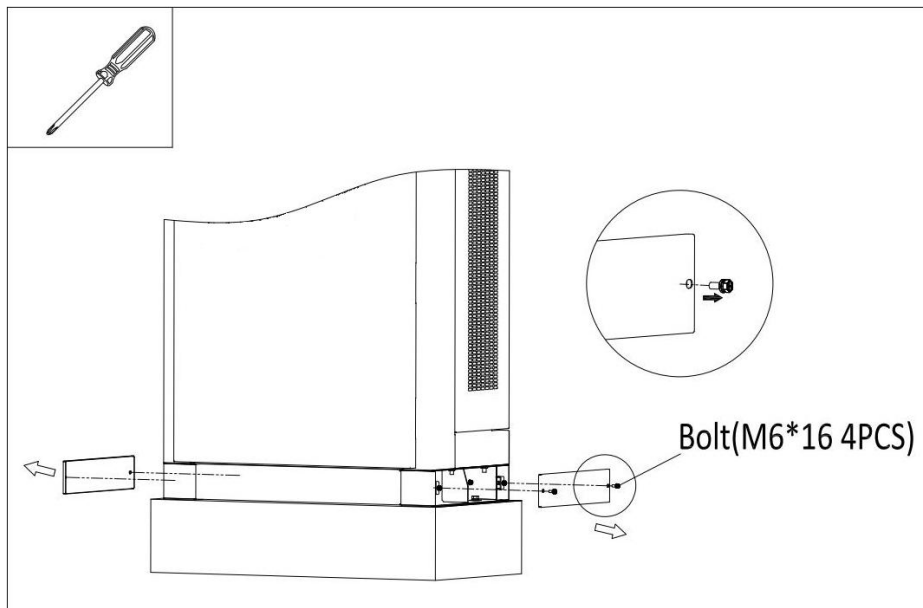
- ① it is necessary to match the mounting hole of the cabinet base with the hole on the cement base;
- ② The inlet cable sealing plate of the cabinet can be removed, advise to remove the sealing plate, pull the reserved cables into the cabinet through the cable inlet hole, install the sealing plate to make the cables pass through the cable gland, and secure the sealing plate to ensure airtightness. The inlet cable sealing plate is shown in **Figure 3.4.3-C- (1)**.
- ③ During operation, please pay attention not to damage the cable and charging connector wire. As shown in **Figure 3.4.3-C-(2)**.



- (1) The inlet cable sealing plate is removable      (2) Do not press the charging connector cable

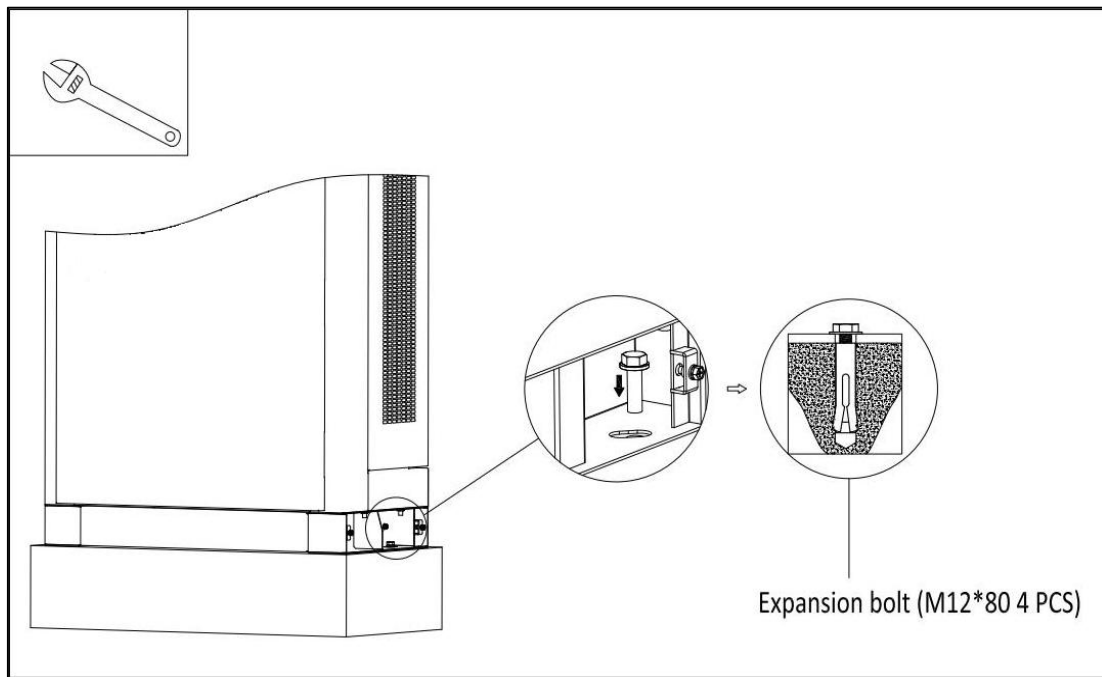
**Figure 3.4.3-C**

- Remove the left and right sealing plates as shown in **Figure 3.4.3-D**.



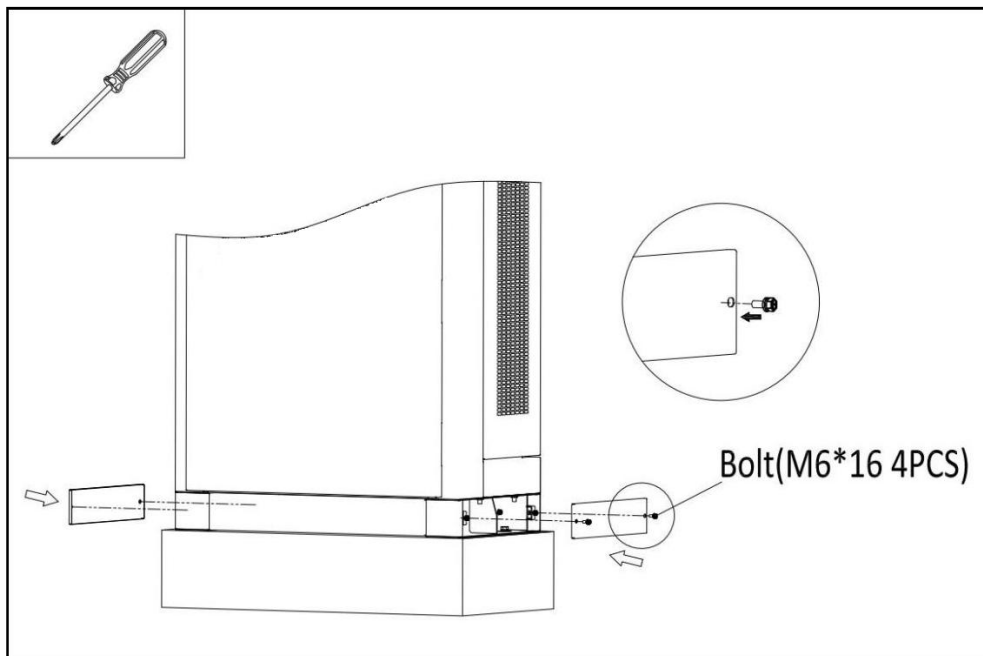
**Figure 3.4.3-D**

- Install M12 \* 80 (4 pcs) expansion bolts on the drilled installation holes around the base, and tighten the bolts to ensure the cabinet is fixed reliably, as shown in **Figure 3.4.3-E**.



**Figure 3.4.3-E**

- Install the left and right sealing plates as shown in **Figure 3.4.3-F**.



**Figure3.4.3-F**

## 3.5 Inspection after installation

### 1. Tightness

According to the requirements of design and protection level, the junction between the inlet sealing plate and the inlet cable at the bottom of the cabinet must be sealed with fireproof mud to prevent insects or dirt from entering the cabinet.

### 2. Stability

After the pile is installed, shake the cabinet from different directions, and there should be no obvious loosening and shaking.

### 3. Clean up

- Dispose of all transportation and packaging materials in accordance with local regulations.
- Clean up the sundries inside and around the cabinet, such as small section of cable, binding tape, screw / nut, desiccant, etc. Do not leave installation tools on site or in the cabinet (record the type and quantity of tools to prevent omission).
- Wipe the insulation with anti-static cloth. Do not use any corrosive solvent.

### 4. Inspection

- Check whether the base is fixed and sealed.
- Check whether the internal components of the equipment are tight and reliable.
- Check whether the electrical connection and wiring are correct and complete, whether the connection is reliable, and whether the grounding is reliable.
- Check whether the cable terminal is loose, and calibrate the screw fixing the terminal.
- Check whether the cable is broken, damaged and scratched.
- Check whether the protection level of the equipment meets the requirements, especially the cable entrance at the bottom of the pile.
- Check appearance, marking, integrity, cleanliness.
- Check the installation of the equipment according to the foundation installation drawing.

### 3.6 Special version

Need to place the charging connector on the storage device after charging is complete.

As shown in **Figure3.6**.



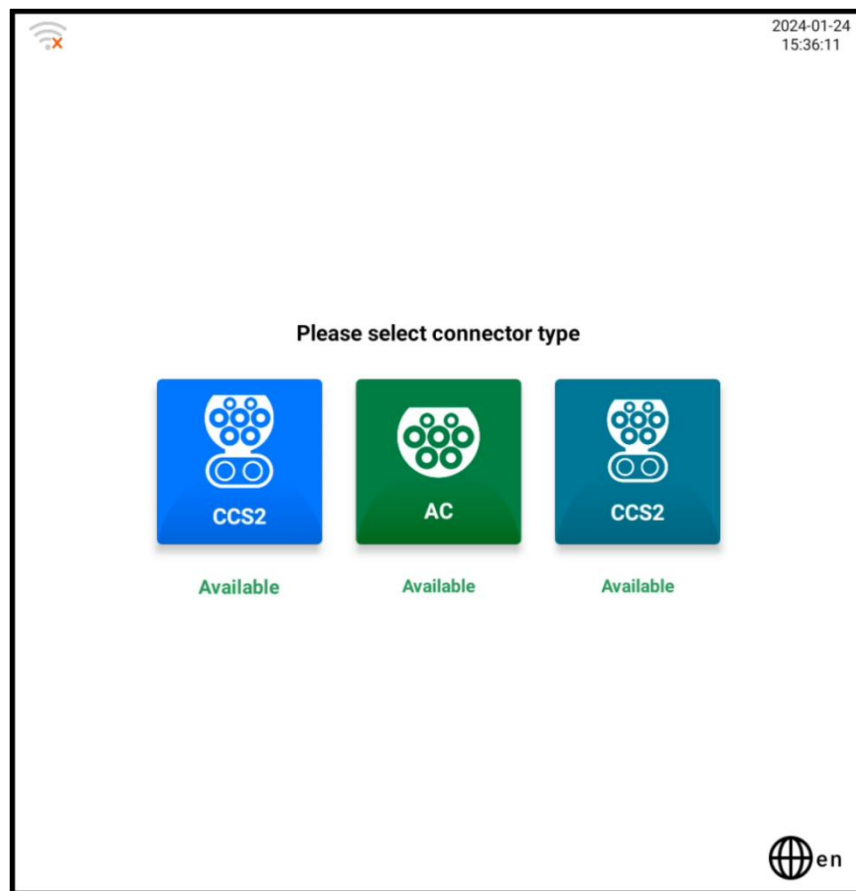
**Figure 3.6**

## 4 Operation interface

### 4.1 Charging process

**Note:** when the charger is in standby mode, the screen is in energy-saving mode. Before operation, touch the screen with your finger to light up the screen. After that it can be used for advertising below the operation interface.

#### 4.1.1 Standby interface

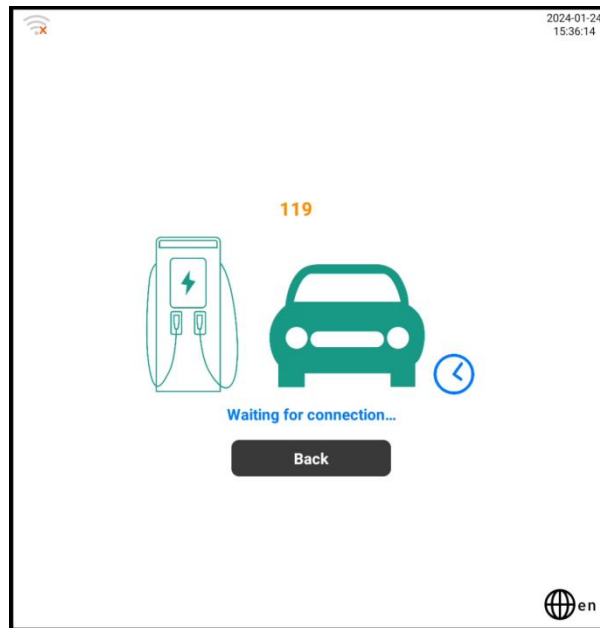


Tip:

1. Select CCS connector or CHA connector according to the socket type of the car. The following is the process of selecting CCS, and the CHA steps are consistent with CCS.
2. Click "language" in any interface to switch the language mode of the UI. At present, Chinese, English and Korean are supported.

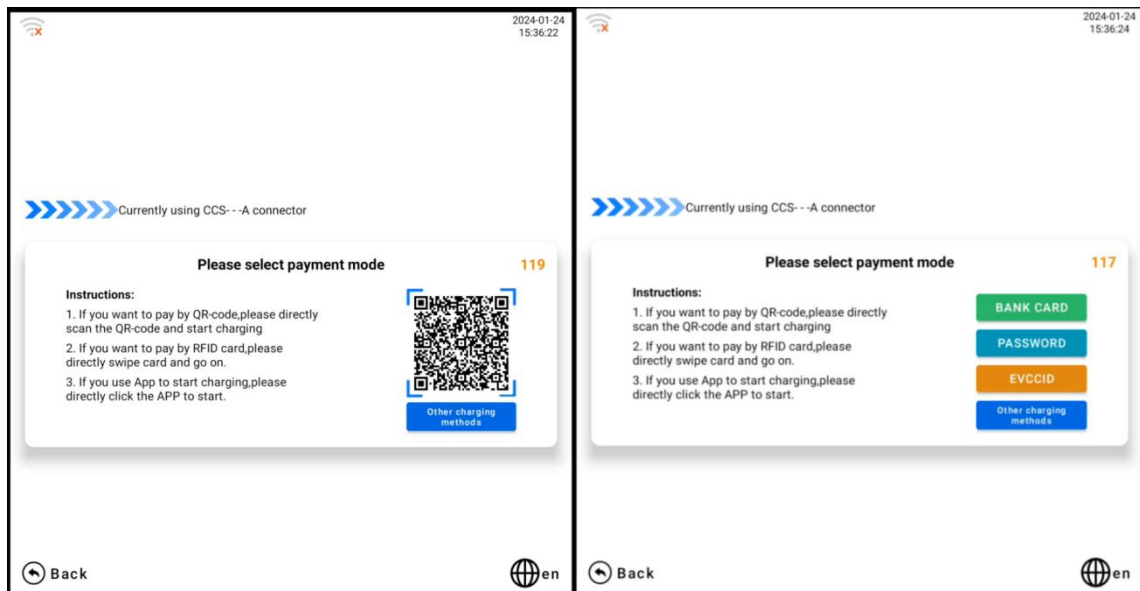


## 4.1.2 Waiting for connector insertion interface



Tip: connecting the connector to the car will jump to the connector insertion interface.

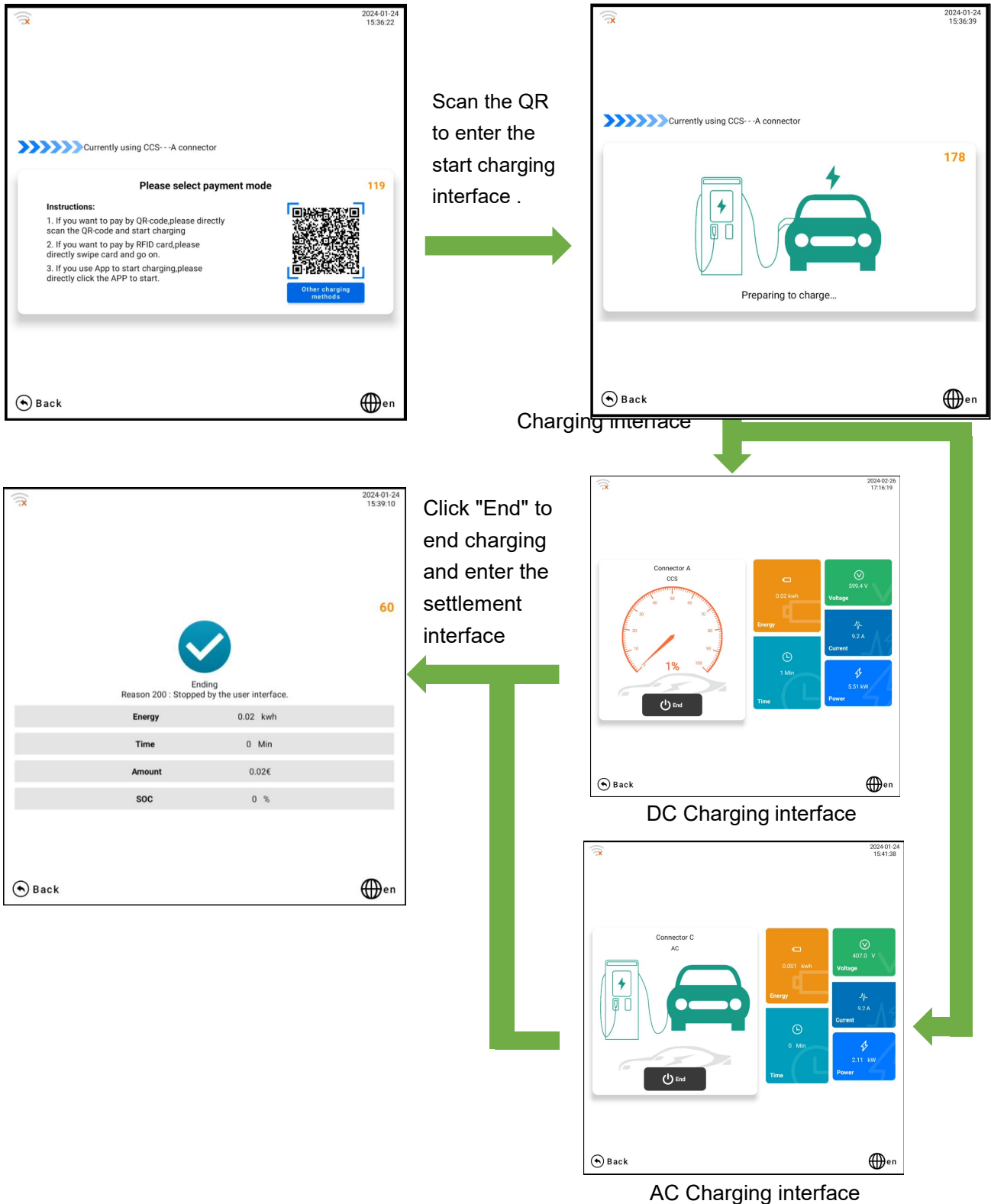
## 4.1.4 Select charging mode interface



Notice:

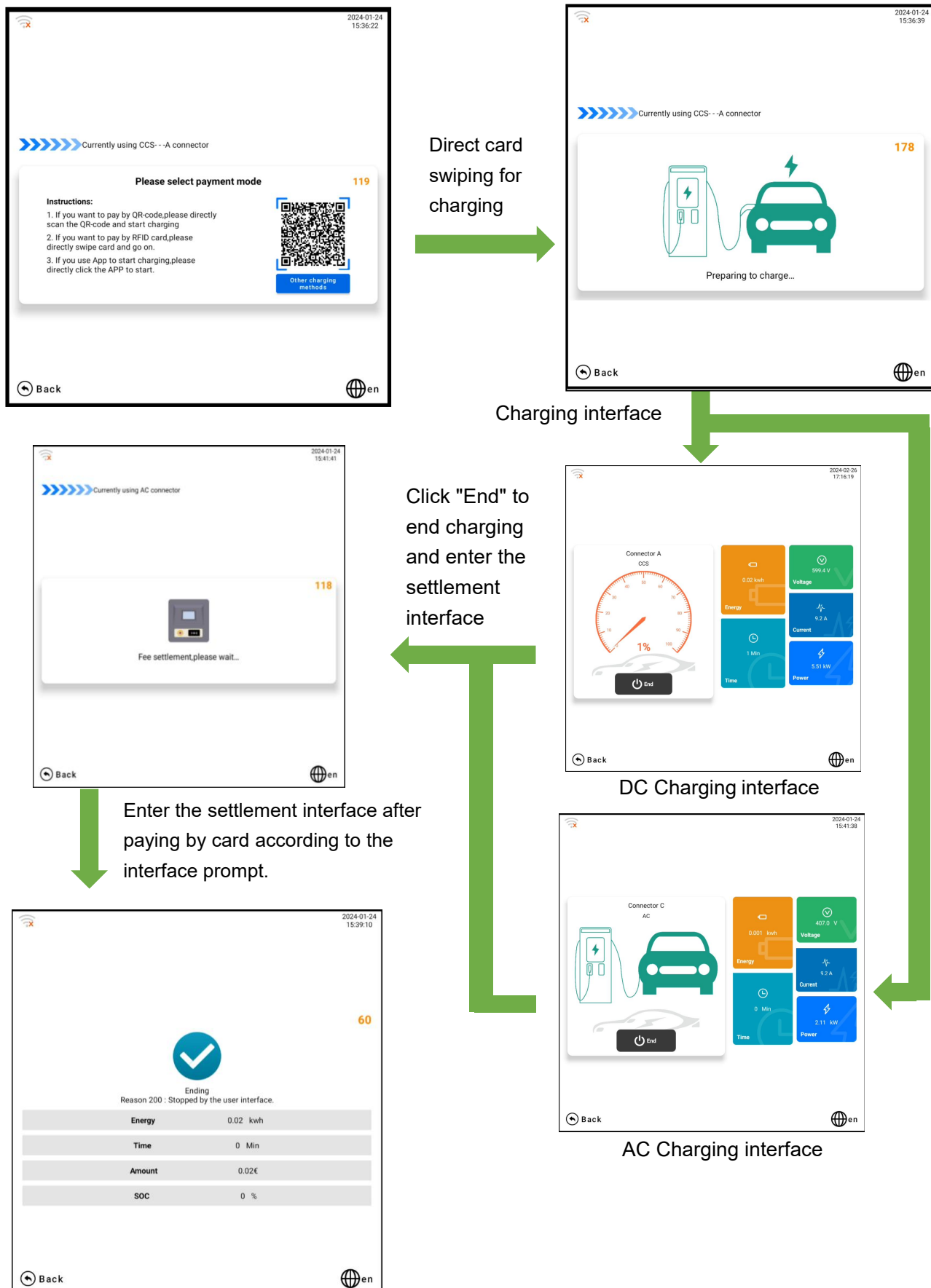
1. If you want to pay by QR -code, please directly scan the QR-code and start charging
2. If you want to pay by RFID card, please directly swipe card and go on.
3. If you use App to start charging, please directly click the APP to start.

# 1. Code scanning charging interface process

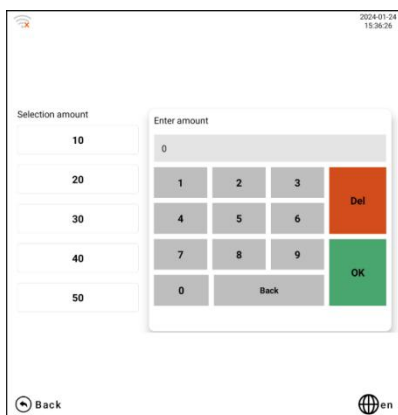


Tip: after charging, click back. If the other charging connector is in charging state, it will jump to the charging interface of the other charging connector, otherwise it will jump to the main interface.

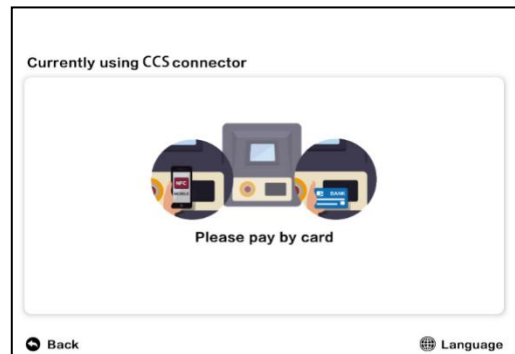
## 2. RFID card charging interface process



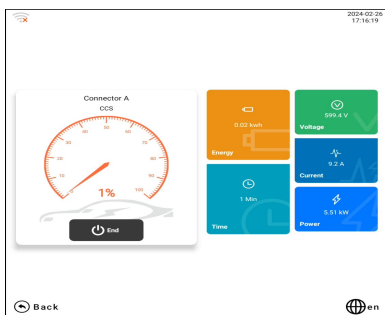
### 3. Interface process of pay by card charging



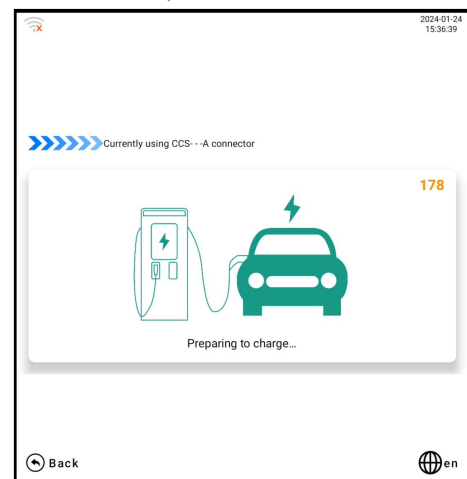
Select or enter the precharge amount to enter the card swiping interface.



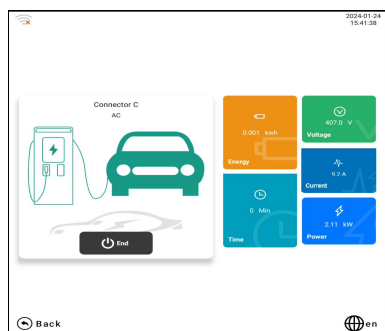
Pay by card according to the interface prompt to enter the charging start interface.



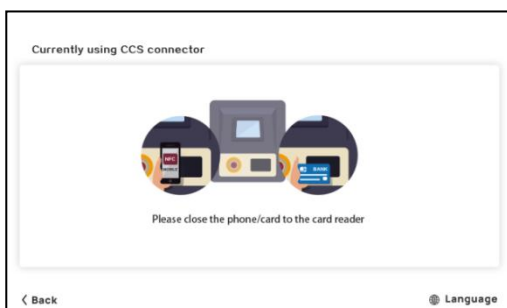
DC Charging interface



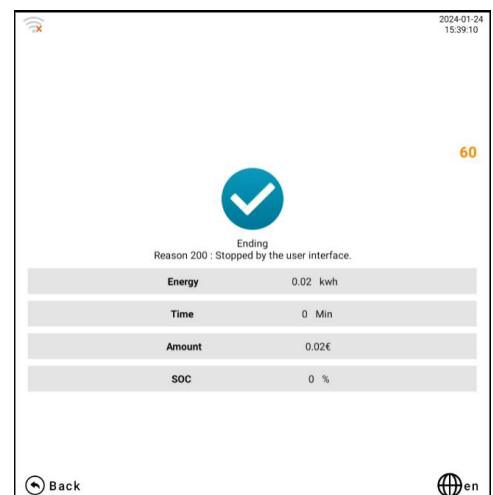
AC Charging interface



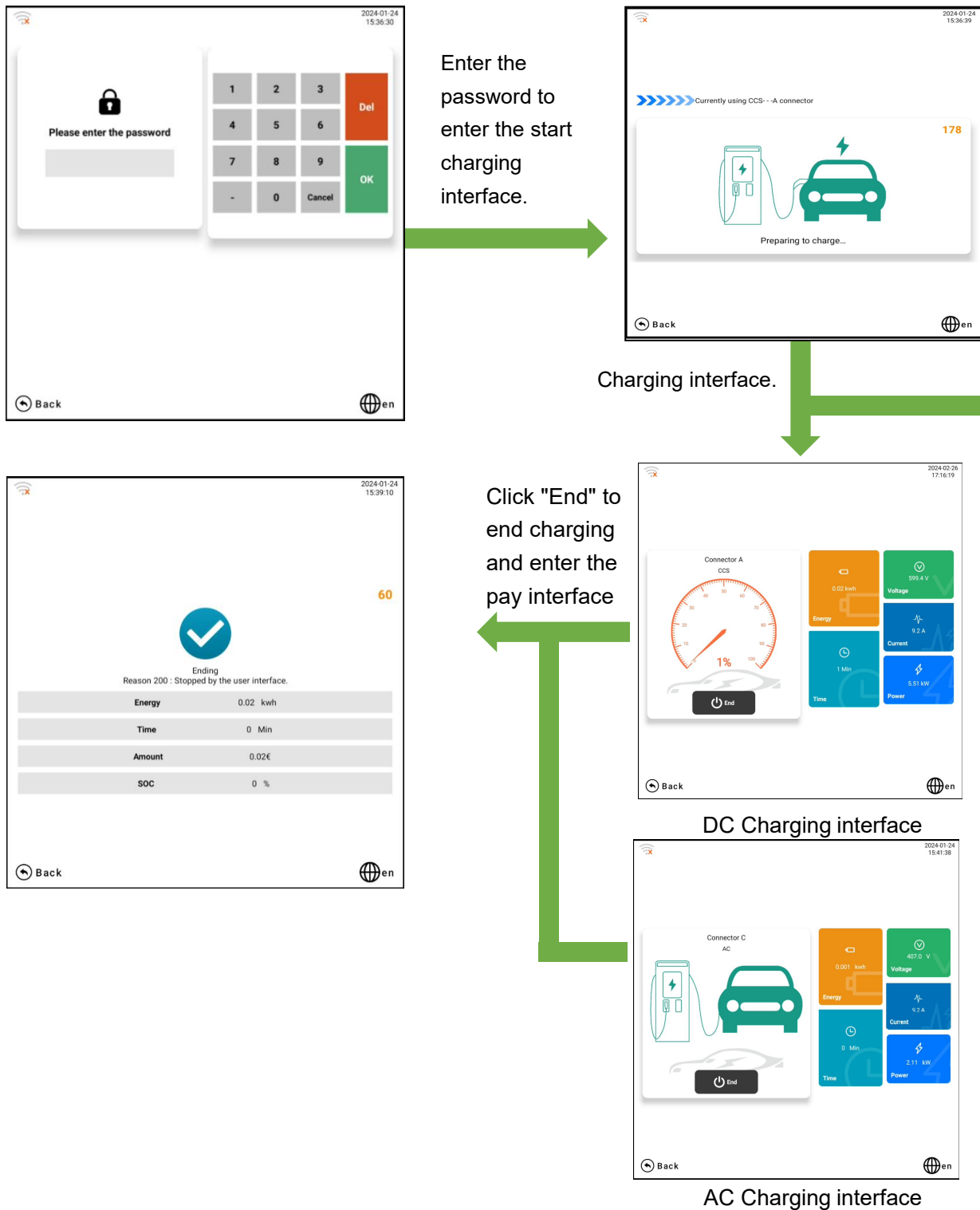
Click "End" to end charging and enter the pay by card interface



Enter the settlement interface after paying by card according to the interface

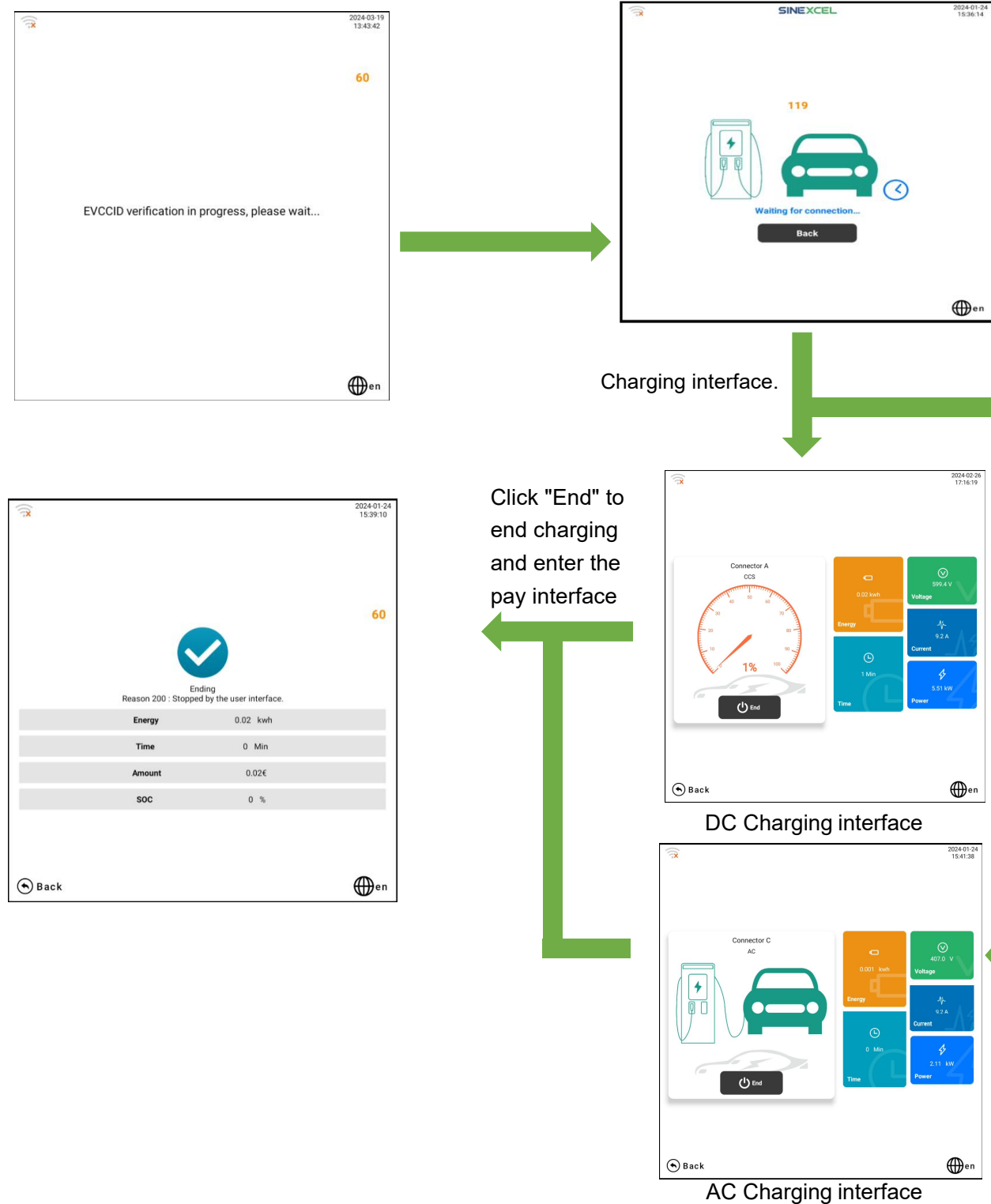


## 4. Password charging interface process



Tip: click the input box to pop up a small keyboard. Enter the complete password through the keyboard and click OK to verify the password. After passing the verification, it will jump to the password start charging interface (password setting: administrator > Settings > MCU > function > offline charging password).

## 5. EVCCID charging interface process



## 5 Simple troubleshooting

### Analysis and treatment of common faults

Refer to the maintenance manual for detailed treatment

Error code	Name of alarm or fault	Processing method
7	Lightning protection failure	<ul style="list-style-type: none"> <li>● Check the status of the lightning arrest device. A red visual window of lightning protection indicates damage. Please replace it.</li> </ul>
1	Emergency stop fault	<ul style="list-style-type: none"> <li>● Please check whether the emergency stop button is pressed and not reset. If so, rotate and reset the button.</li> </ul>
11	Over temperature protection of air outlet	<ul style="list-style-type: none"> <li>● Please check whether the air outlet of the system is blocked and whether too much dust accumulates on dustproof cotton.</li> <li>● Please check the status of the air outlet fan. Replace it if anyone of them fails.</li> </ul>
32	Access protection	<ul style="list-style-type: none"> <li>● Please make sure the cabinet door is completely closed.</li> <li>● If the alarm still exists, please check the status of the micro switch. Replace it if it is damaged.</li> </ul>
20	Charging module failure	<ul style="list-style-type: none"> <li>● Check the module front panel, confirm the fault and find fault cause.</li> <li>● Pull out the faulted module and replace with a new one.</li> <li>● Check whether the alarm light of RCD device is on. If so, it indicates that the system has leakage fault.</li> </ul>
3	RCD action	<ul style="list-style-type: none"> <li>● It is necessary to check whether there is insulation fault in the circuit at the back end of RCD.</li> <li>● Check whether the casing is reliably grounded.</li> </ul>



Notice: To prevent electric shock, all switches of the equipment and front-end power distribution switch of the equipment shall be disconnected during fault detection and treatment, and protective measures shall be taken.

## 6 After-sales service

If you have any questions or problems, please contact the equipment supplier.

Before contacting the equipment supplier:

- Please check the troubleshooting measures in the chapter "5. Simple troubleshooting".
- Please record the model and serial number of the equipment (name plate of the equipment) and the failure time.