

User manual

DC EV Charger

PEVC3107E/PEVC3107U
for 180kW & 240kW



Version: V1.01

Safety and Compliance

Save these instructions. Read the manual before installation or usage of device.

- 1) Do not put tools, material or other parts into the electric vehicle connector.
- 2) Do not use the DC EV charger if the cabinet, power cord or charging cable are frayed, have broken insulation or show any other signs of damage.
- 3) Do not install or use the DC EV charger if the enclosure is broken, cracked, opened or shows any other indications of damage.
- 4) The DC EV charger should be installed only by a qualified technician.
- 5) Make sure that the materials used and the installation procedures follow local building codes and safety standards.
- 6) The information provided in this manual in no way exempts the user of responsibility to follow all applicable codes or safety standards.
- 7) The manufacturer is not responsible for physical injury, damage to property or damage to equipment caused by the installation of this device.
- 8) This document provides instructions for the DC EV charger and should not be used for any other product. Before installation or use of this product, you should review this manual carefully and consult with a licensed contractor, licensed electrician or trained installation expert to make sure of compliance with local building codes and safety standards.

Warning



Hazardous voltage that gives risk of electrocution



General risk



PE

The input and output voltages of this device are high voltage, which threaten human life safety. Please strictly observe all warnings on the device and user manual. Unauthorized and non-professional service personnel are forbidden to remove the cover of this device.

CONTENT

1 Product Introduction

1.1 Product Description	01
-------------------------	----

1.2 Product Characteristic	02
----------------------------	----

1.3 Product Technical Specifications	03
--------------------------------------	----

1.4 External Structure	04
------------------------	----

1.5 Package Contents	05
----------------------	----

2 Installation Instruction

2.1 Installation Preparation	06
------------------------------	----

2.2 Mounting Process	07
----------------------	----

3 Configuration and Operation

3.1 Power-on Checking	13
-----------------------	----

3.2 Start and stop charging by your charge card	13
---	----

4 Indication and Fault

4.1 Indicator Status	16
----------------------	----

4.2 Fault Code and Resolution(LCD display)	17
--	----

5 Warranty and Service

5.1 Customer Service	18
----------------------	----

5.2 After Service	18
-------------------	----

5.3 Contact Us	18
----------------	----

1 Product Introduction

1.1 Product Description

The DC EV charger is the top choice for powering battery electric vehicles (BEV) and plug-in electric vehicles (PHEV) today. It is designed for quick charging in both public and private locations, such as retail and commercial parking spaces, fleet charging stations, highway rest areas, workplaces, residences, etc.

The DC EV charger has the advantage of easy installation. The ground-mounted design and pluggable power modules allow for flexible installation. The DC EV charger also features network communication capability; It is able to connect with remote network systems and provide drivers of electric cars real-time information, such as the locations of charging stations, charging progress information and billing information. The DC EV charger has a friendly user interface with HMI, a power supply safety system and excellent waterproof and dust-proof technology to provide the best choice for outdoor environments.

1.2 Product Characteristic



7 Inch LCD Display

Straightforward user interface with 7 inch panel, which display the real-time charging status, including time, voltage, current, power and temperature.

Convenient operation

Easy installation with modular design, adapt to indoor and outdoor environment. Ingress protection up to IP54.

Simultaneous charging output

Applicable to dual output and multiple output model, smart Charging model to adjust the power loading, Load sharing to ensure the best utilization.

High intelligence

Powerful information collection, transmission and communication functions, compatible to OCPP backend office, support user authentication options.

Easy to install and use

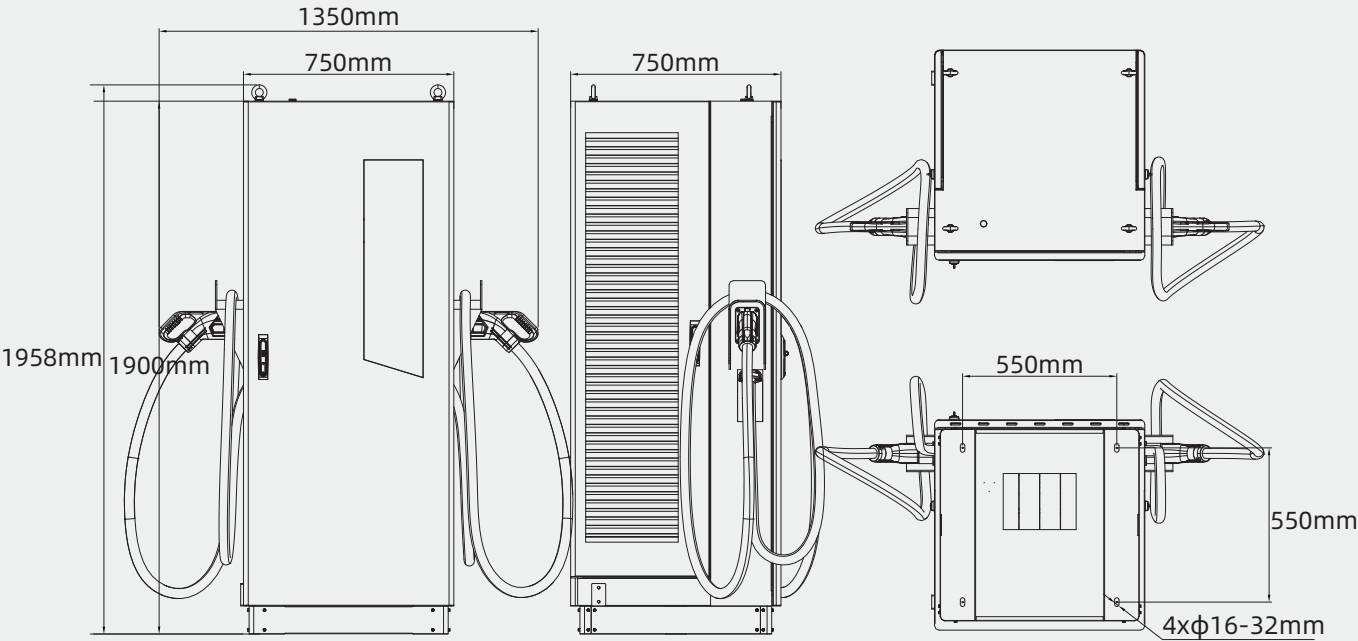
The installation process is simple, payment is convenient and fast, supports mobile application software or IC card swiping. Fully compatible with all EV in the market.

1.3 Product Technical Specifications

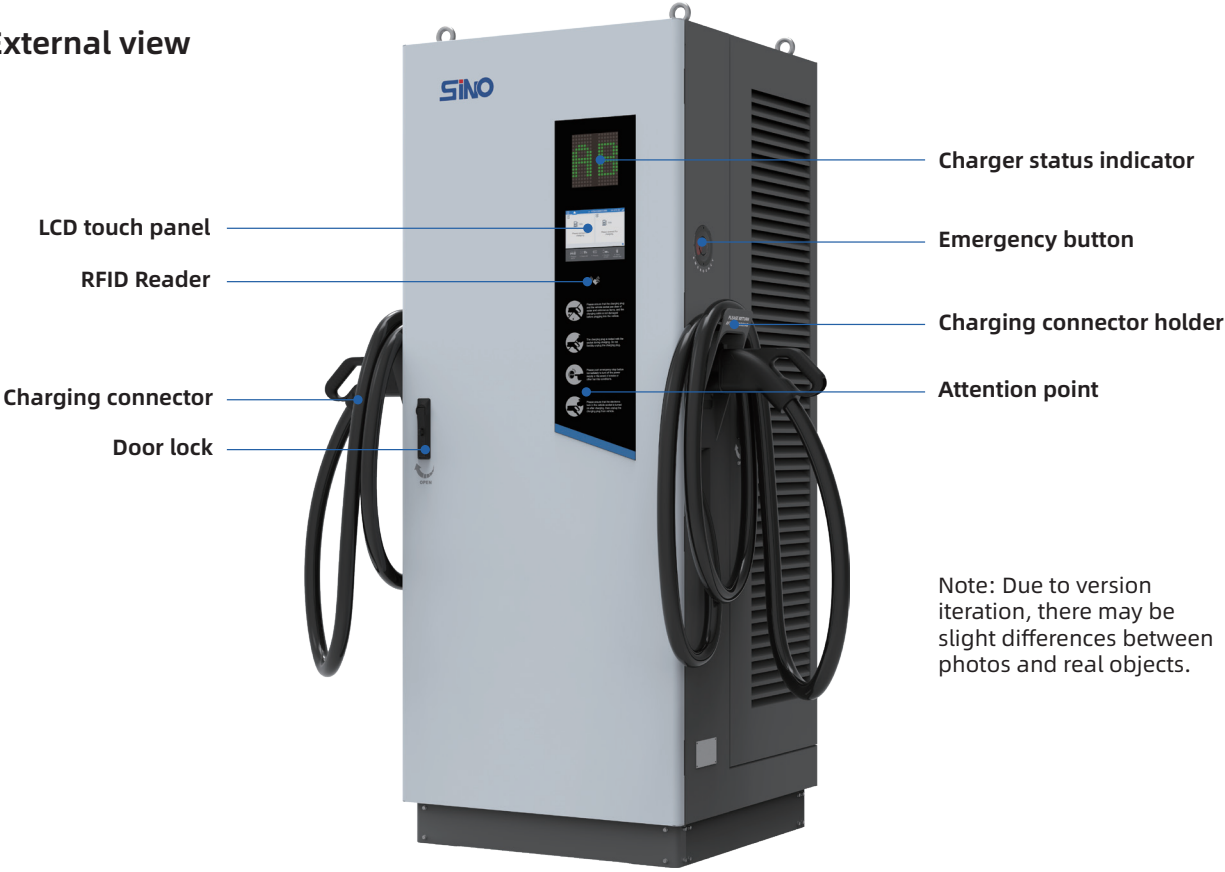
Parameter type	Description	PEVC3107E	PEVC3107U
Input	Power Supply	3P+N+PE	
	Rated voltage	400VAC±10%	480VAC±10%
	Frequency	50/60Hz	
	THDi	≤5%	
	Efficiency	≥95%	
	Power Factor	≥0.98	
Output	Connector Type	CCS1/CCS2/GBT	
	Voltage	150-1000VDC	
	DC Current	200A/250A/300A max	
	Power Rating	180kW~240kW	
	Voltage Accuracy	≤0.5%	
	Current Accuracy	≤±1%	
General	HMI	7-Inch Touchscreen	
	Payment Method	RFID Card,APP	
	Cable Length	5m	
	Communication Protocol	OCPP 1.6J	
	Operating Noise Level	≤75dB	
	Ingress Rating	IP54	
	IK Rating	IK10	
	Power Meter	Accuracy Class 1.0 energy meter	
	Enclosure	Galvanized steel, surface sprayed with anti-corrosion paint	
	Place of Installation	Indoor / Outdoor	
	Product Dimension(W*D*H)	750*750*1900mm	
	Package Dimension(W*D*H)	1000*920*2050mm	
	Protection	Over Current,Under Voltage, Over Voltage,Short Circuit, Surge Protection,Over Temperature, Ground Protection	
		Residual Current	/
	Certification	CE	/
	Certification Standard	EN/IEC 61851-1, EN/IEC 61851-23, EN/IEC 61851-24, IEC 62196-1,IEC 62196-3	
Environmental	Operating temperature	-30°C~+50°C	
	Storage temperature	-40°C~+75°C	
	Maximum Installation Height	≤2000m	
	Operating Humidity	5%~95% RH	

1.4 External Structure

Dimension drawing



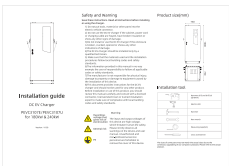
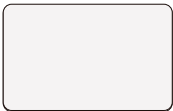

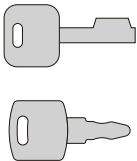

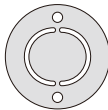
External view



1.5 Package Contents

Unpack the product. Please check and verify following items after receiving the charger:

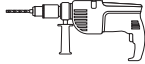





- 1) Visual inspection on charger's external appearance. If there is any breakage or other damage, please notify the seller immediately.
- 2) Check type and quantity of all accessories as follows. If there is a shortage in the quantity of any items or if any items are missing, please contact the seller at once.

General parts		
		
Installation guide (x1)	RFID card (x2)	Certificate (x1)
		
Key (x2)	Expansion bolt M12×100 (x4)	Emergency button protection(x1)

2 Installation Instruction

2.1 Installation Preparation

Please prepare the following tools before installation:

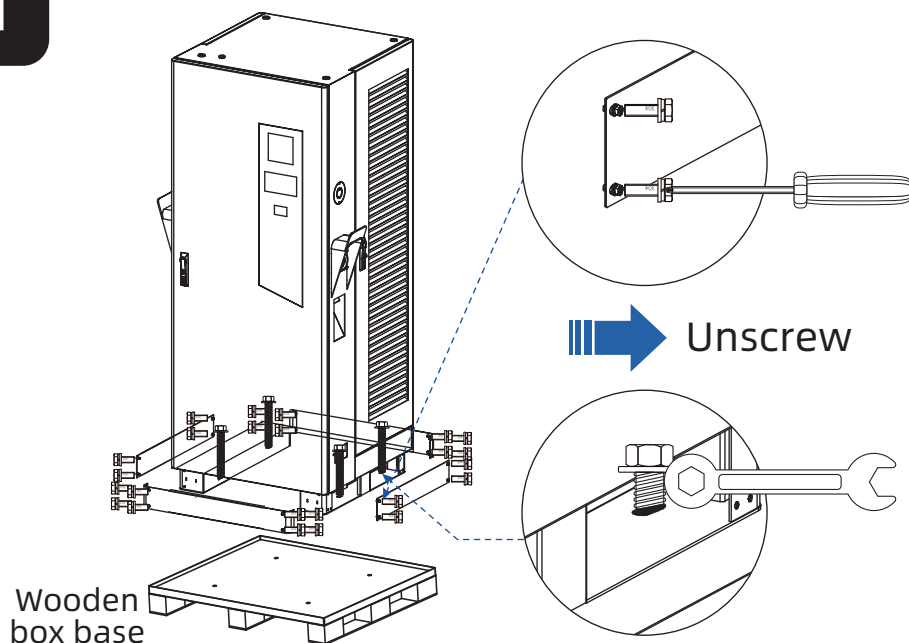
	Hammer drill and drill bit (φ18mm)
	Electric drill
	Hammer
	Hex wrench
	Measuring tape(5m)
	Cross screwdriver

Installation Notice

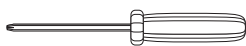
- Electrical devices should only be installed, operated, and maintained by qualified technician. No responsibility is assumed by the manufacturer for any consequences arising out of the use of this device.
- When installing wires, do not turn on the power supply.
- The length of the power cable and communication cable should be properly reserved to facilitate installation and connection.
- Pay attention to protect the charger enclosure during installation to prevent bumping, scratching the surface, etc.
- The charger must be installed vertically, and the deviation of any direction from the vertical position should not exceed 5°.
- The cross sectional area of the L1/L2/L3/N copper wires should not be less than **16mm²**.
- The cross sectional area of the power grid's protective earthing (PE) conductor shall have a cross-sectional area not less than **16mm²** in copper.


2.2 Mounting Process

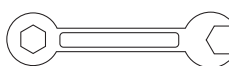
1



24x 
M5x12

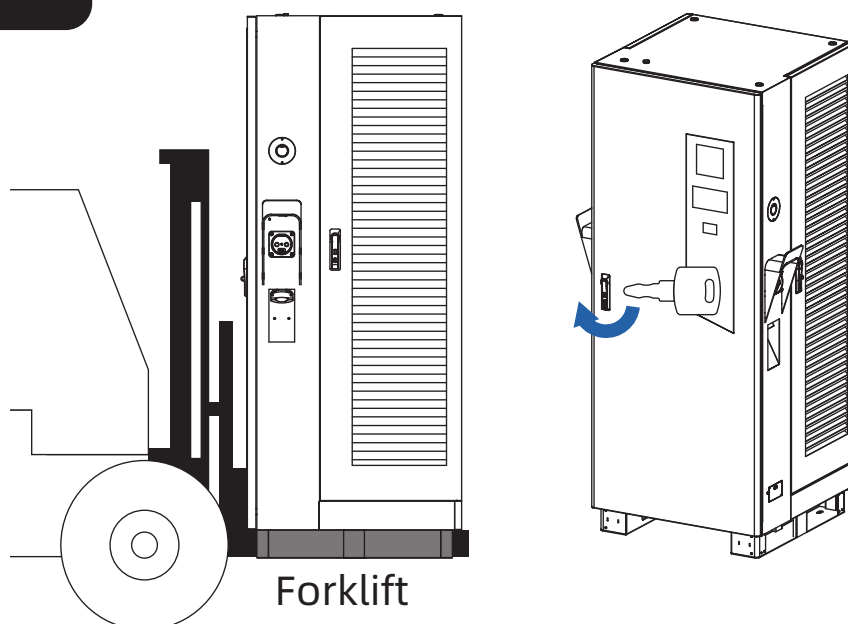

Cross screwdriver

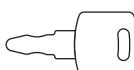
4x 
M10x60


Hex wrench

1) First dismantle the wooden box remove the base cover, expose the wooden bracket fixing screw and remove it to separate the charging stake from the wooden bracket.

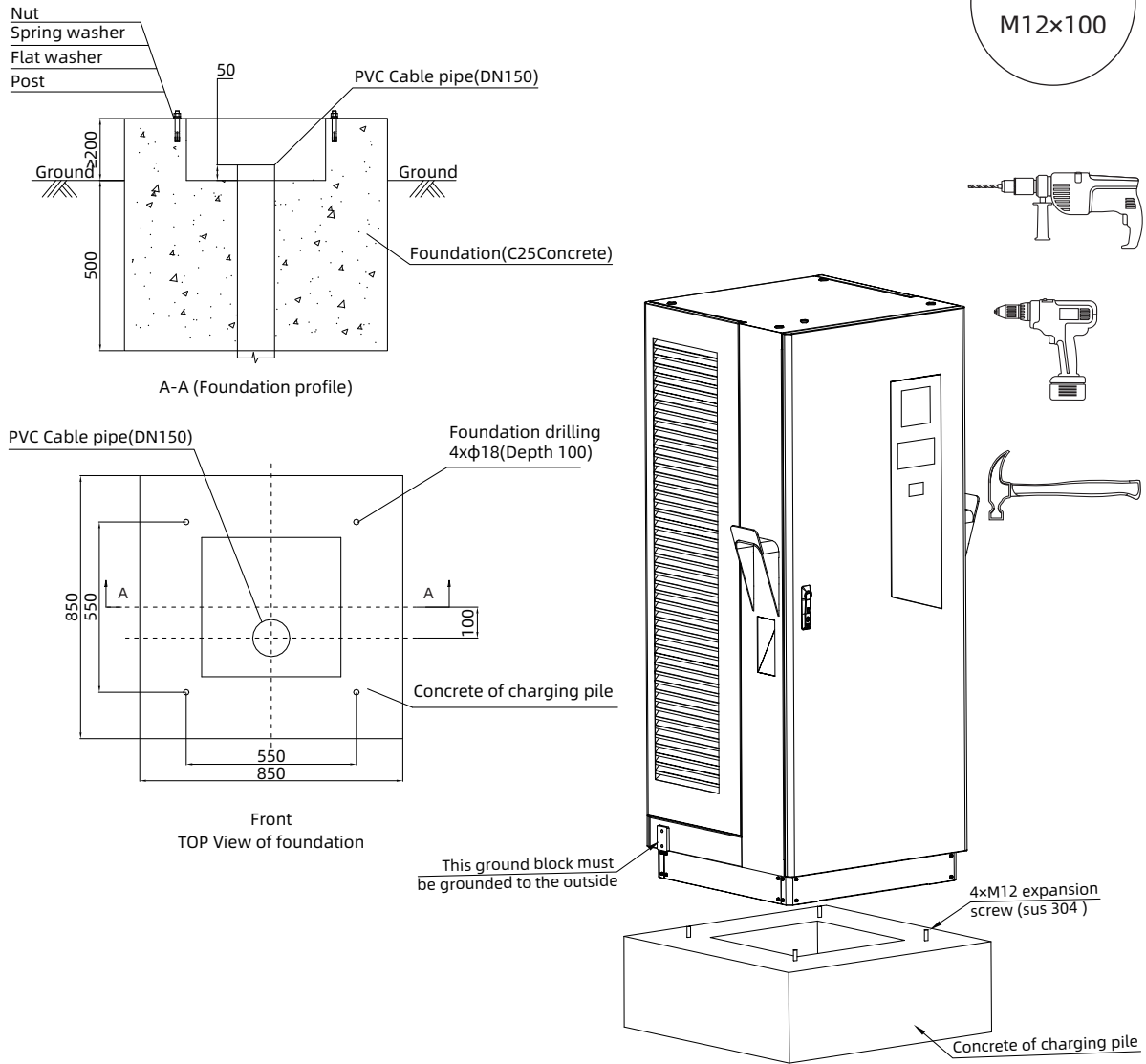
2




Key

2) Take the key and open the front door to remove the accessory bag.

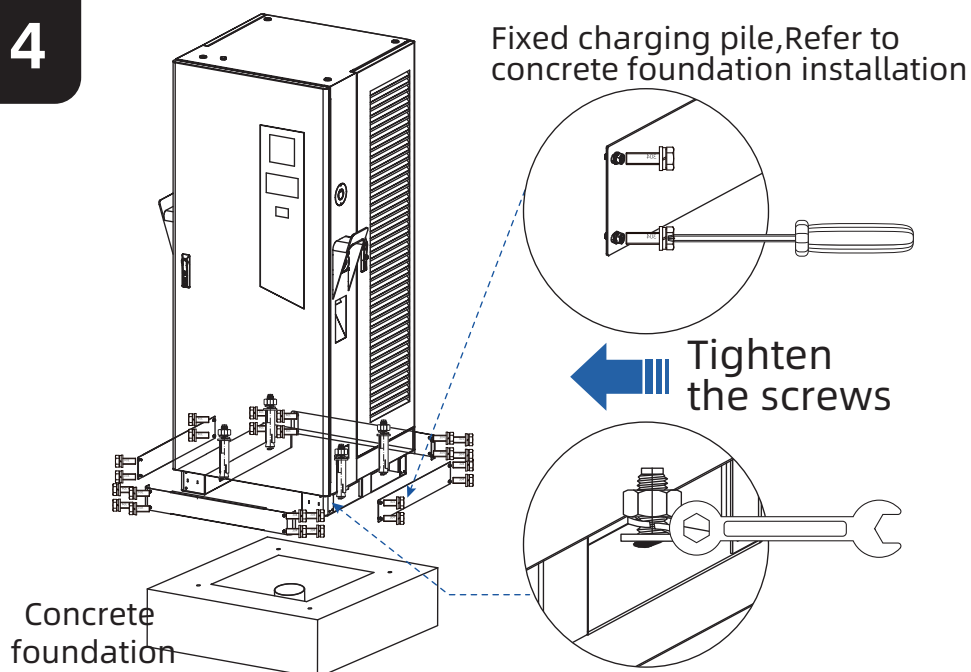
3



3) Foundation fabrication requirements: the ground height of the foundation is ≥ 200 mm, the underground depth is 500mm, the length is 800mm, the width is 650mm, four M12 holes with a depth of 100mm are drilled at the designated position of the cement base, and expansion screws are installed at the holes. The embedded conduit shall be 50~80mm higher than the foundation, and the conduit shall be replaced during foundation pouring.

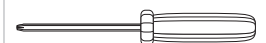
Installation distance requirements: The distance between the upper part of the charging stake and the obstacle is not less than 150mm, the distance between the two sides of the charging stake and the obstacle is not less than 800mm, the distance between the back side and the obstacle is not less than 50mm, and the distance between the front obstacle should ensure that the front door is opened smoothly and maintained internally. When there is a parking line, the horizontal distance between the parking line and the stake should not be less than 400mm.

4



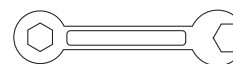
4) Use a crane or forklift to transport the charging stake to the mounting position and align the four corner reserved screw posts. Use a wrench to tighten the four corner nuts to secure the charging stake to the base.

24x
M5x12



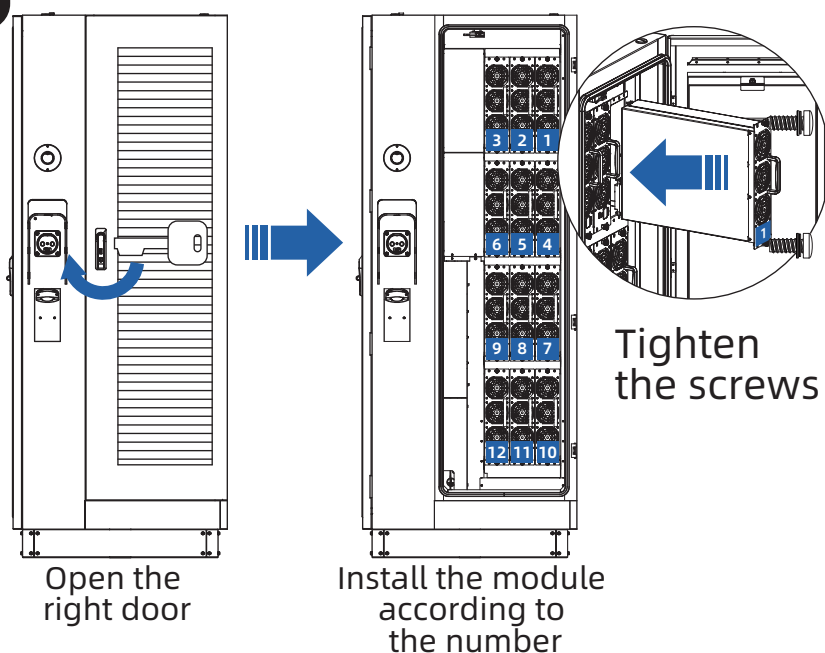
Cross screwdriver

4x
M12x100



Hex wrench

5



5) Open the right door, insert the module into the corresponding numbered module slot, and tighten the upper and lower screws.



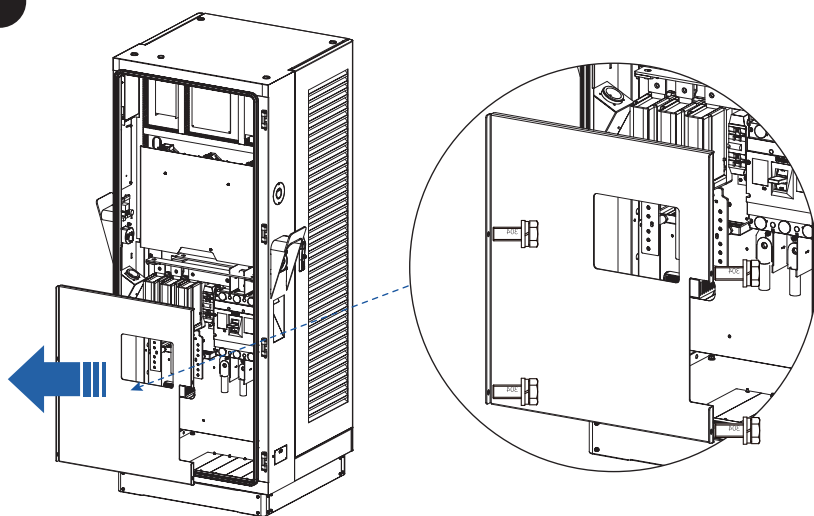
Key

M4x10




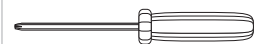
Cross screwdriver

6



Tighten the screws, Open the PC panel

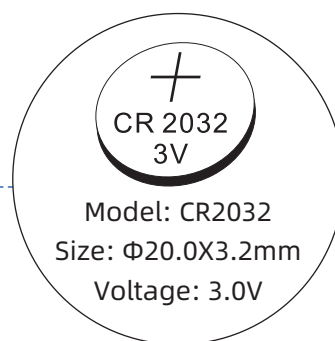
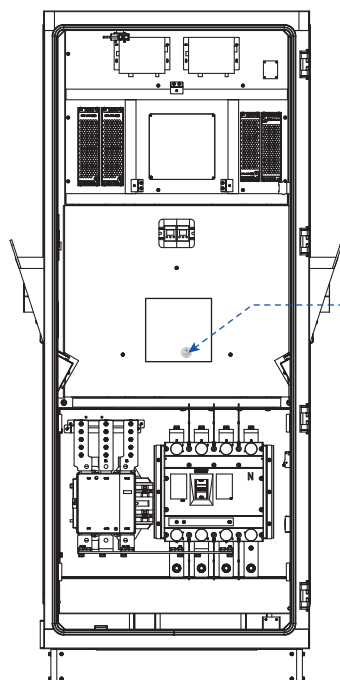
3x 
M6x16



Cross screwdriver

6) Open the front door and release the input PC shield with a screwdriver.

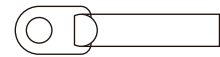
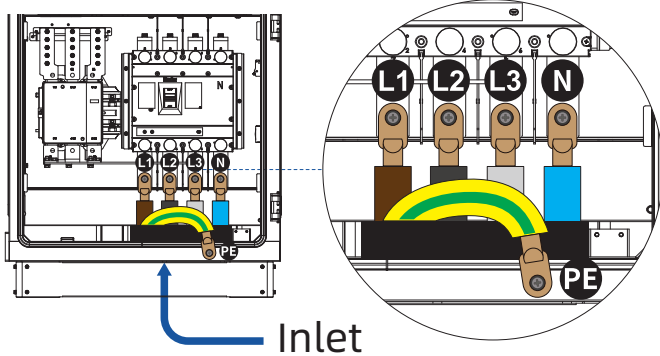
7



**Installing
the battery**

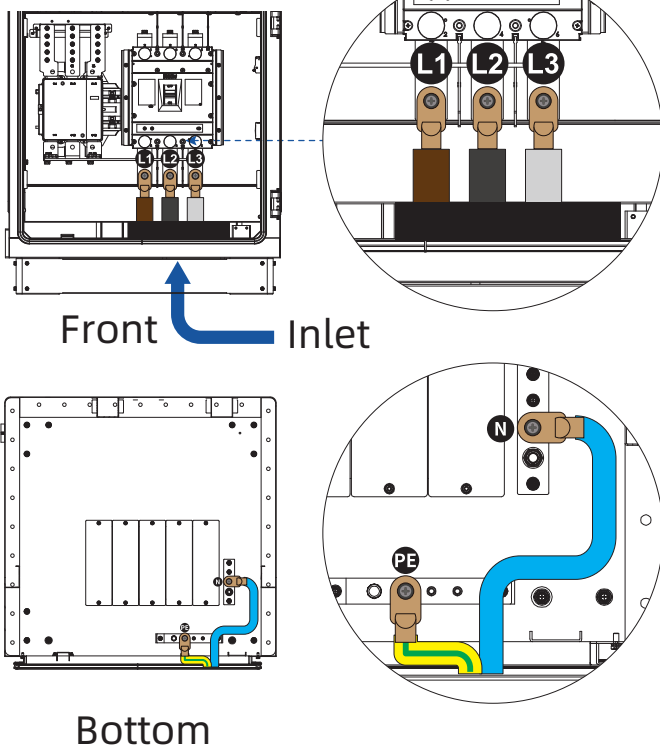
7) Put the positive pole of CR2032 battery upward into the battery holder.

Figure 1 Wiring



Cable lug

Figure 2 Wiring



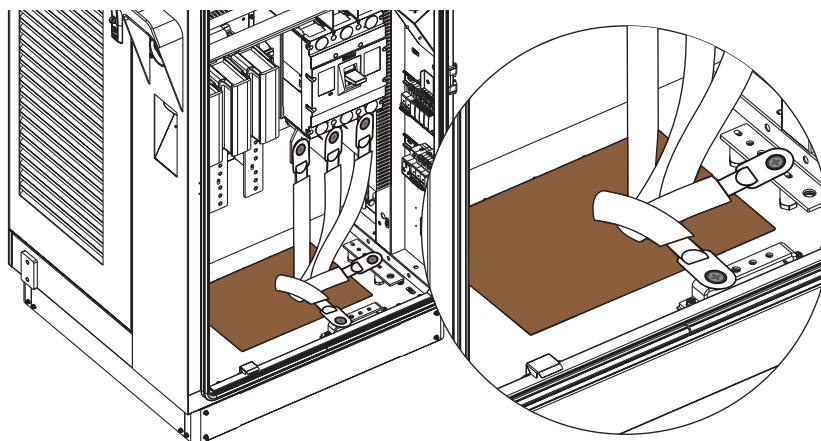
180kW
L1/L2/L3/N:DT-185
PE:DT-95

240kW
L1/L2/L3/N:DT-300
PE:DT-150

Power	PVC size	Recommended cable	Recommended switch
180kW	DN150	L1/L2/L3/N:185mm ² 、PE:95mm ²	≥350A 4P
240kW		L1/L2/L3/N:300mm ² 、PE:150mm ²	≥500A 4P

8) Connect the power cord L1/L2/L3/N/PE according to the labels. After the wiring is completed, replace the PC shield and block the entrance with fireproof mud, then close the front door.

9



9) After the cable is connected, the bottom should be sealed, such as sealing fire mud.

3 Configuration and Operation

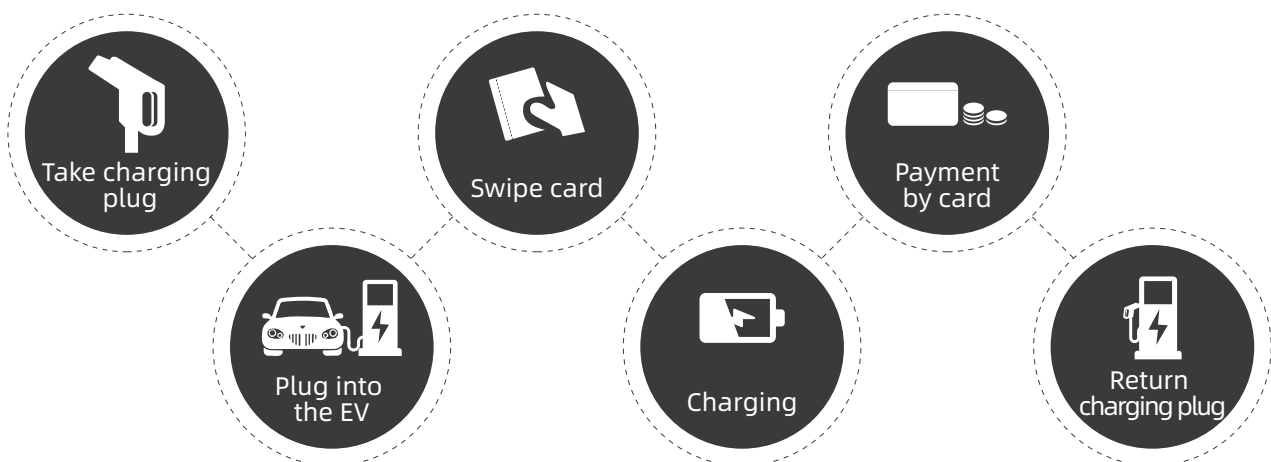
3.1 Power-on Checking

Please check / re-check the following items prior to initial Power-on:

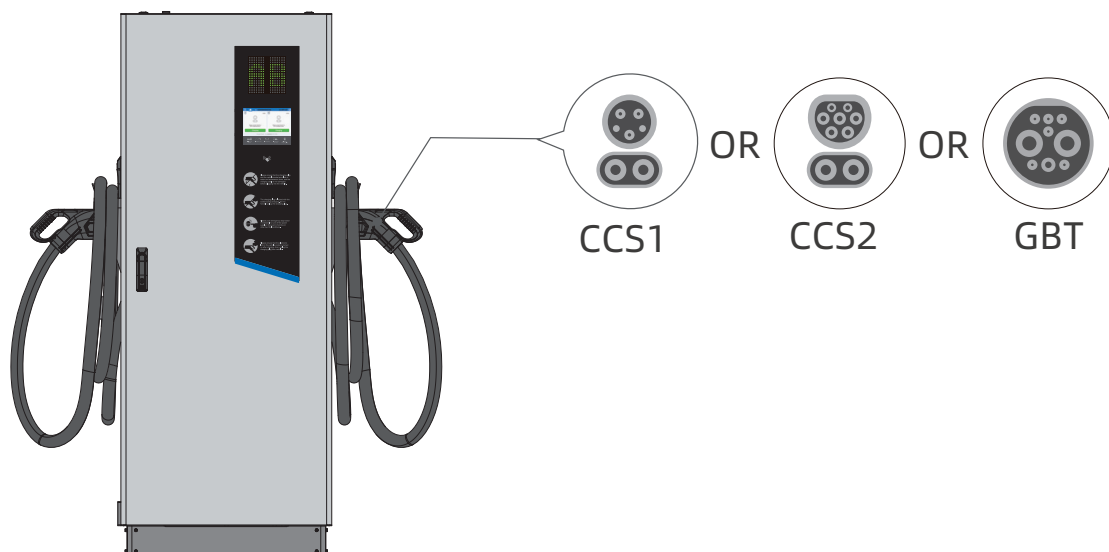
- 1) The location of the charger should be convenient for operation and maintenance.
- 2) Before installation of the charger, ensure that the AC input component in the power supply is properly installed with the required protection.
- 3) Double confirm the charger is installed properly.
- 4) No components or other items have been left inside of the charger.

3.2 Start and stop charging by your charge card

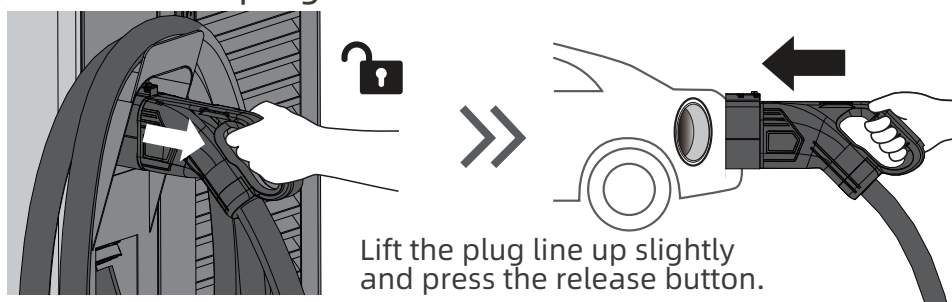
Operation



1) Choose a compatible plug.

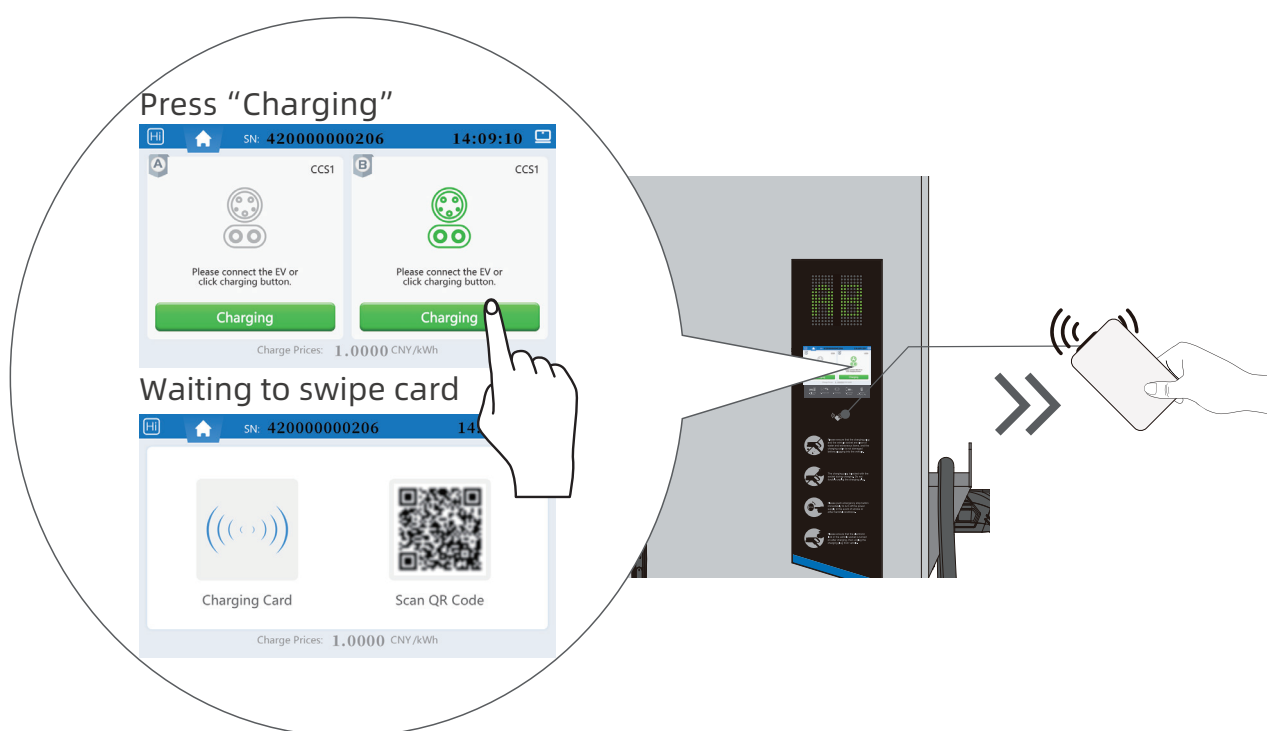


2) First press the small button on the plug base, and then pull out the plug connect the plug to the EV.

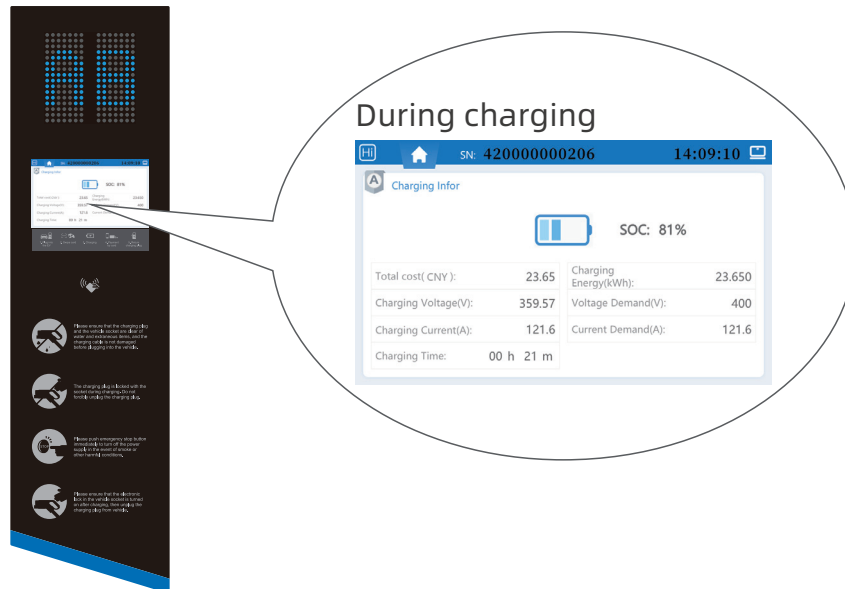


Lift the plug line up slightly and press the release button.

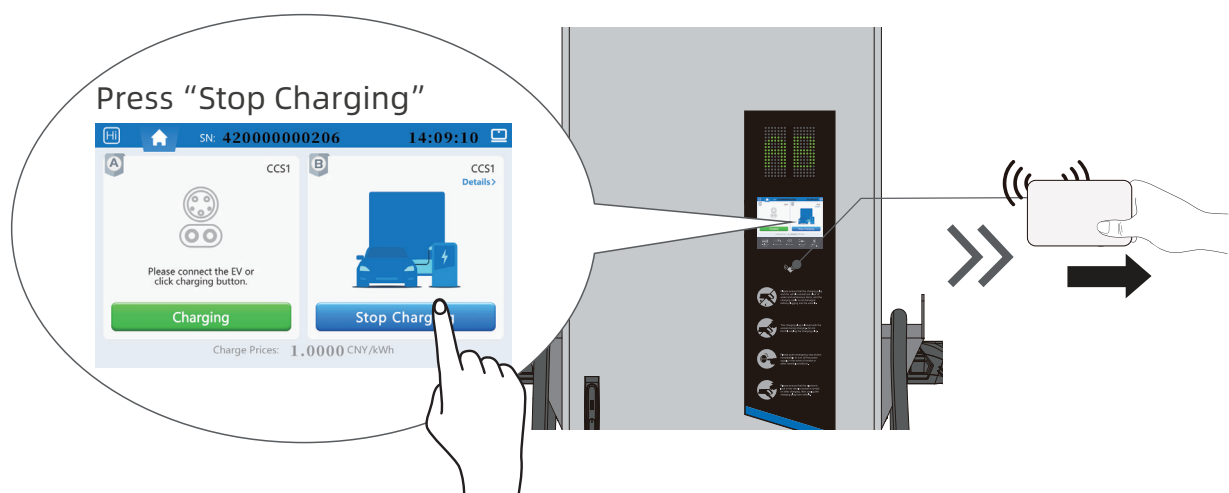
3) Swipe the authorized RFID card to start charging. The authorized RFID can be used directly without any activation or setting.



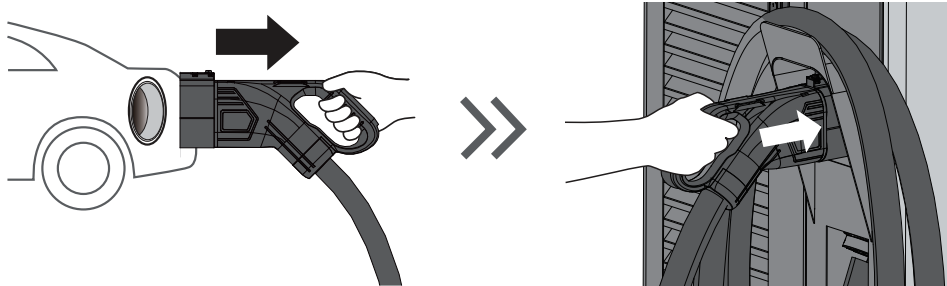
4) Once charging commences, status information is displayed on the screen. The following illustrations demonstrate the start to near complete charging procedure.



5) Swipe the authorized RFID card to stop.



6) Return the plug to the holder.



4 Indication and Fault

4.1 Indicator Status

	LED Light Status	Description of Charging status
AB	Green light on	The Charger is power on.
AB	Blue light blink	The charger is ready.
AB	Blue light raising	The charger is working for EV.
AB	Red light on	Failure or alarm status, unable to charge.

4.2 Fault Code and Resolution(LCD display)

Fault Status	Troubleshooting suggestion
Card Detector	Check whether the connecting cable of the card reader is loose.
SPD	Check whether the SPD is abnormal.
Emergency	Reset emergency stop button.
Over voltage of Power Supply	Check whether the input voltage of the equipment is too high.
Under voltage of Power Supply	Check whether the input voltage of the equipment is too low.
Circuit breaker Status	Check whether the circuit breaker is opened.
Over temperature	Stop using for a period of time and wait for the equipment to return to the normal temperature range and restart.
Communication of Charge Module	Communication with the AC/DC module is broken.
Cabinet Door	The equipment access door is opened.
Storage state	Please contact professional after-sales personnel to deal with it.
Control System	Please contact professional after-sales personnel to deal with it.

5 Warranty and Service

5.1 Customer Service

We can provide customers with professional product advice and purchase options. All emails will be responded within 48 hours during working days. We provide online customer service in multiple languages. You can communicate with ease, or contact us through email anytime.

5.2 After Service

Please refer to the contract for the warranty period. The specific after-sale plan will be free for replacement or charging a certain maintenance cost according to the specific situations. During the warranty period, customers can apply for replacement or free maintenance for the fault damage caused by product quality. For the fault damage caused by other reasons (human factors, natural factors, etc.), we will provide paid maintenance services.

5.3 Contact Us

SINO is a subsidiary of Zhuhai Pilot Technology Co., Ltd. If you need to report for repair or inquire about charging product service, please call the company's customer service hotline +86 153 6153 1855 or through the official email info.sino@pmac.com.cn contact us.

 **Zhuhai Sino Energy Technology Co.,Ltd.**

 **Address:** Building 10, No. 81, Dingye Road, High-tech Zone, Zhuhai City

 **Postal Code:** 519085

 **Website:** www.sinoevse.com

 **Official Email:** info.sino@pmac.com.cn

 **Service Hotline:** +86 153 6153 1855

