

Integrated DC EV Charger

Quick Start Guide



Foreword

General

This manual introduces the installation, functions and operations of the integrated DC EV charger (hereinafter referred to as the "EV Charger"). Read carefully before using the device, and keep the manual safe for future reference.

Safety Instructions

The following signal words might appear in the manual.

Signal Words	Meaning
 DANGER	Indicates a high potential hazard which, if not avoided, will result in death or serious injury.
 WARNING	Indicates a medium or low potential hazard which, if not avoided, could result in slight or moderate injury.
 CAUTION	Indicates a potential risk which, if not avoided, could result in property damage, data loss, reductions in performance, or unpredictable results.
 TIPS	Provides methods to help you solve a problem or save time.
 NOTE	Provides additional information as a supplement to the text.

Revision History

Revision Content	Release Time	Revision Content
V1.0.0	First release.	March 2025

Important Safeguards and Warnings

This section introduces content covering the proper handling of the device, hazard prevention, and prevention of property damage. Read carefully before using the device, comply with the guidelines when using it, and keep the manual safe for future reference.

Transportation Requirements



When you transport or move the EV Charger, please note the following safeguards to ensure product safety.

- Transportation by vehicle, ship, train and aircraft is applicable. Avoid violent vibration, impact and inversion during transportation. Situations like exposure to the sun and rain, package dumping and more, shall be avoided during the transportation process.
- When transporting the EV Charger, do not place heavy stress on the front glass panel.
- Do not transport the EV Charger by dragging the charging connector or charging cable.

Storage Requirements



WARNING

Do not place flammable or explosive materials near the EV Charger. Otherwise, an explosion might occur.



- Do not place the EV Charger in a location that exposes it to direct sunlight or heat sources.
- Keep all the original packing materials in case you need to pack and send the EV Charger back for repairs. Pack the EV Charger with packaging material that comes with it. If the EV Charger sustains accidental damage during transportation due to incorrect packaging, the owner must bear responsibility.
- If the EV Charger is not used immediately after purchase, and needs short-term or long-term storage, store it in a dry and well ventilated indoor place to avoid high temperature, humidity, dust and metal powder. The ambient temperature of storage is -30 °C to 50 °C, and the relative humidity is 5%–95%.

Installation Requirements



WARNING

- All service personnel must have required certification or qualified training for performing installations and maintenance of EV chargers. They must also have knowledge and skills in the following areas:
 - ◇ Basic knowledge and skills in installing the EV Charger and its components.
 - ◇ Basic knowledge and skills in low-voltage wiring and in connecting low-voltage electronic circuits.
 - ◇ The ability to read and understand this manual.
- Safety protection is a must when installing the EV Charger.

- Installation and wiring must be carried out by professionals to avoid electric shocks.
- The power must be cut off before wiring to avoid electric shocks.
- Strictly comply with the local electrical safety code and standards when performing installation and other operations.
- The grounding terminal of the EV Charger must be correctly grounded to avoid electric shocks.
- Do not leave bolts, washers, or other metals inside the EV Charger to avoid explosions and fire.
- The exposed parts of the cable terminal must be wrapped with insulation tape to avoid fire and property damage.
- The post of the EV Charger must be installed on non-combustible materials, such as concrete, to avoid fire breaking out.
- Do not install the EV Charger in areas containing explosive gases. Otherwise, explosion might occur.
- Do not install the EV Charger in areas containing explosive gases to avoid explosions.



- An emergency disconnect device must be installed during installation and wiring.
- The front cover must be properly closed to avoid damage to the EV Charger.
- The main loopback terminal of the EV Charger must be firmly connected to the wiring interface to avoid property loss.
- Do not install the EV Charger in an environment that might expose it to vibrations, shocks and electromagnetic interference, to avoid it sustaining damage.
- Install the EV Charger away from an environment that is saturated with water or other liquids.
- Do not install the EV Charger in a location that exposes it to sunlight or heat sources.
- To make the EV Charger work stably for a long time, do not install it in harsh weather. Expansion due to heat or contraction due to cold might affect the installation process.
- We recommend that you install the EV Charger in a well-ventilated place that is windproof and rainproof. To ensure good ventilation, it should be installed vertically, leaving enough space for ventilation.
- The EV Charger should be installed in an area that does not have conductive dust and insulating destructive gases or steam.
- The installation foundation should be higher than the ground, and drainage ditches should be set around the EV chargers, to avoid device damage.

Operation Requirements



WARNING

- An electric vehicle can only be charged when it is stationary with its engine off.
- Minors and persons with limited ability are strictly prohibited from approaching the EV Charger to avoid injury.
- Force charging is strictly prohibited when the electric vehicle or the EV Charger fails.
- In the event of an emergency (such as fire, smoke, abnormal noise, and water leakage), for your personal safety, press the red emergency button and immediately move away from the EV Charger. Contact the supplier afterwards.
- When the charging adapter or the charging cable is defective, cracked, worn, broken, or the charging cable is exposed, it is forbidden to use the EV Charger. If you find any of the above problems, please contact the supplier.
- Electric vehicles are not allowed to be charged during rains or thunderstorms.
- Strictly comply with the local electrical safety code and standards when performing operations.

- Use the power adapter provided by a certified manufacturer. See the specification for details.
- To reduce the risk of fire and electric shock, do not expose the EV Charger to rain and damp environments.



- Do not place the EV Charger in a humid, dusty, extremely hot or cold site that is corrosive. For details on the temperature and humidity requirements, see the specifications.
- Ensure the EV Charger has adequate ventilation for heat dissipation.

Maintenance Requirements



WARNING

- Maintenance personnel must have required certification or qualified training for installing and maintaining the EV Charger. They must also have knowledge and skills in the following areas.
 - ◇ Basic knowledge and skills in installing the EV Charger and its components.
 - ◇ Basic knowledge and skills in low-voltage wiring and in connecting low-voltage electronic circuits.
 - ◇ The ability to read and understand this manual.
- Personnel must wear protective shoes at all times during maintenance.
- Accessories replacement must be performed by professionals. It is strictly prohibited to leave wire or metal in the controller. Otherwise, explosion and fire might occur.
- Accessories must be replaced by professionals. To avoid explosions and fire, wires and metals are prohibited from being left in the controller of the EV Charger.



- Contact your local retailer or customer service center if the EV Charger works abnormally. Do not disassemble or repair the EV Charger by yourself. The company is not responsible for problems caused by unauthorized modifications and repairs.
- After replacing the main PCBA, adjust and match the parameters before you perform operations, to avoid property damage.
- We recommend you conduct routine safety checks on the EV Charger at least once a week.
- To ensure the EV Charger functions for a long time, periodically perform maintenance on it (usually monthly) based on the environment it is installed in.
 - ◇ The EV Charger should be maintained by professionals.
 - ◇ Check whether the EV Charger is correctly grounded and safe.
 - ◇ Check whether there are potential safety risks around the post of the EV Charger. Ensure the EV Charger is not in an extremely hot, corrosive environment that has flammable and explosive materials.
 - ◇ Check whether the connection points of the input terminals are in good contact and whether there are abnormalities.
 - ◇ Check whether other connection points are loose.
- Keep the connector clean and dry. If there is dirt, wipe it away with a clean and dry cloth after powering off the EV Charger.

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1 Product Introduction

1.1 Product Overview

The appearance of the EV Charger depends on the product configuration. The following figure is only for reference. The actual appearance might vary.

Figure 1-1 Product



Table 1-1 Product description

No.	Description	No.	Description
1	The charging indicator is designed with 2 sections to indicate the status of 2 charging connectors respectively. ● Yellow: charging. ● Green: standby or OK. ● Red: stop or alarm.	5	Emergency button. In the event of an emergency, you can press the button by breaking the plastic cover. When you rotate the button to the right, the button that has been pressed will be released. Note that: ● Replace the plastic cover if damaged. ● Do not press the button at will. ● Routine maintenance is recommended.
2	RFID card reader.	6	Touch screen.
3	Charging outlet A, with charging interface CCS2.	7	Charging outlet B, with charging interface CCS2.
4	Company logo.	-	-

1.2 Main Features

- Performs excellently at high temperatures with its wide power range as it uses the UXR module.
- Full load charging efficiency is higher than most others in the industry by using UXR module.
- Consumes very little power in standby mode, reducing operating costs.
- Outputs 100 V–1000 V power, applicable to all types of electric vehicles.
- Compatible with the design of DC charging module and has wider application scenarios.

- Unique air duct design, small impedance, strong compression capacity, and high heat dissipation efficiency, stable and reliable.
- Simple and elegant structure; strong and weak AC-DC separation; small size, occupying small space.
- Electrical and air duct are completely isolated, waterproof design, and high density dust net.
- Customized appearance.

1.3 Charging Information

1.3.1 Charging Mode

The EV Charger conforms to EN IEC 61851-1:2019, and it uses charging mode 3 (AC charging with a stationary charging point), which is a method that connects an electric vehicle (EV) to an AC EV supply device and then provides AC power to the EV.

1.3.2 Charging Connection

According to EN IEC 61851-1:2019, the EV Charger uses type 2 tethered cable and meets case C connection, which connects an EV to a supply network using a cable and vehicle connector permanently attached to the EV charger.

2 Operation Instructions

The following information is intended for the customer and the charging station operator. Your charging station can be equipped with 2 types of charging cable: CCS and CHAdeMO. Select the one that matches your vehicle.

2.1 Charging Procedure

2.1.1 Charging Flow

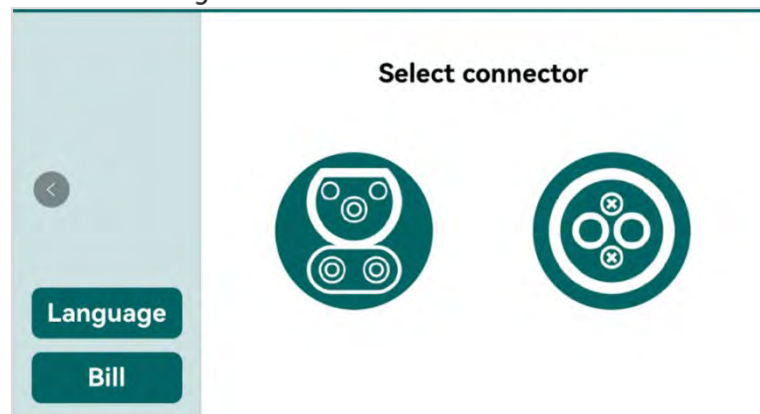


2.1.2 Charging Steps

Step 1 Select connector.

Insert the connector into the vehicle, and then tap the screen to select the connector type.

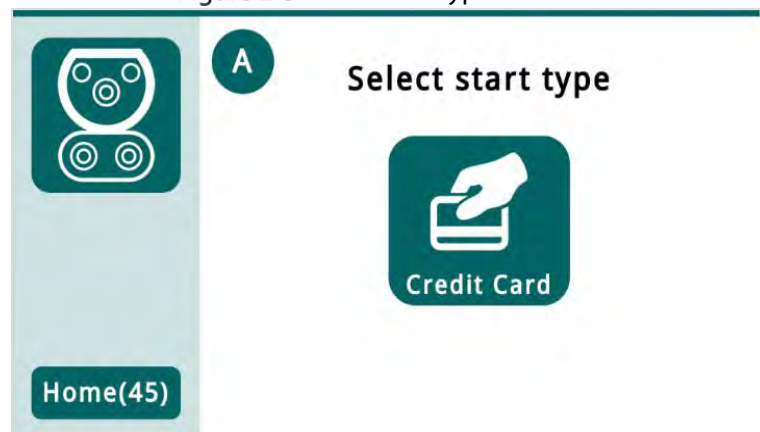
Figure 2-2 Select connector



Step 2 Select start type.

Swipe credit card on or insert credit card into POS, enter password, or swipe IC card (coming soon) to start charging.

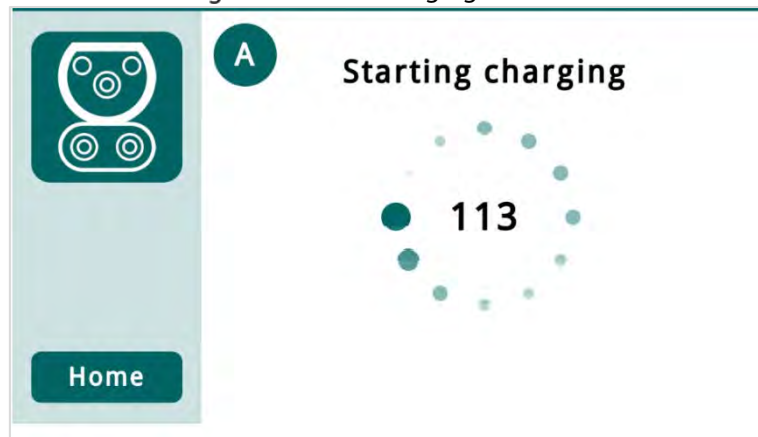
Figure 2-3 Select start type



Step 3 Start charging.

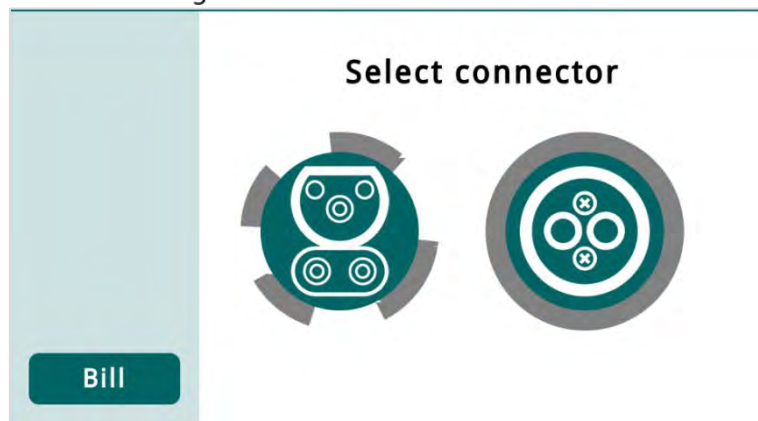
Wait a few seconds to connect the vehicle.

Figure 2-4 Start charging



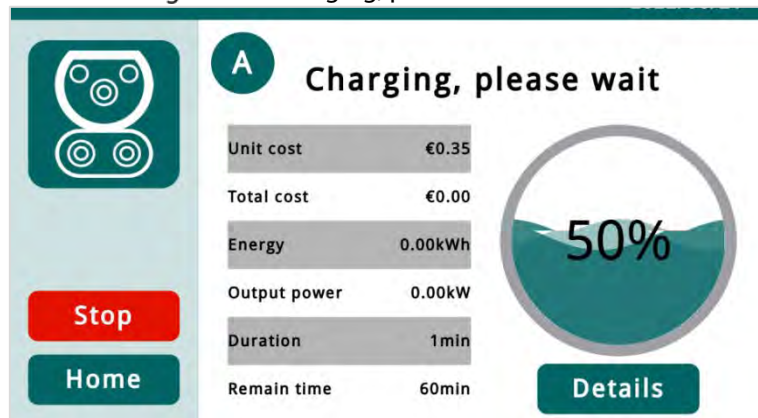
- Tap **Home**, it goes to the **Select connector** page.

Figure 2-5 Select connector



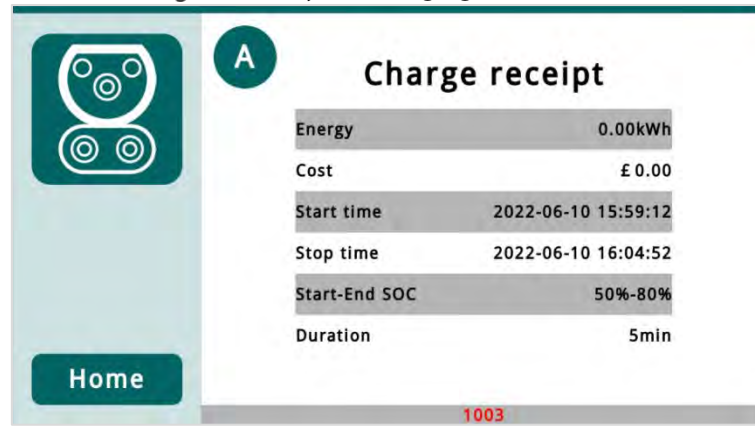
- If there is no operation, it goes to the **Charging, please wait** page, where you can tap **Stop** to stop charging, or tap **Details** to view more charging information.

Figure 2-6 Charging, please wait



Step 4 Pay the charging fee after the charging finishes.

Figure 2-7 Pay the charging fee



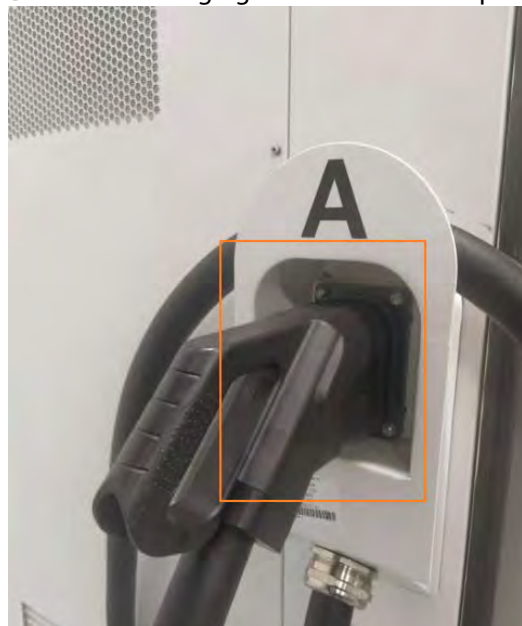
- The steps above are the default process. You might have to amend the process based on your site and local situation. You can check the instructions on the icon that is on the EV Charger's front door. The default charging password is 123456. You can change the password at any time.
- The red number "1003" on the **Charge receipt** page is not an error code.
- To change the language, tap **Language** as shown in Figure 2-2 Select connector. Currently, English, Polish and Chinese are available.

2.2 Charging Connector Usage

After you finish charging, the charging cable must be placed on both sides of the EV Charger, and the charging connector should be correctly inserted into the port.

Before you insert the charging connector into the vehicle, check whether the connector interface is damaged, or whether there is any foreign matter or water around it. We recommend that you be cautious when charging on rainy and snowy days, and connecting the connector to the vehicle before start charging.

Figure 2-8 Insert the charging connector into the port



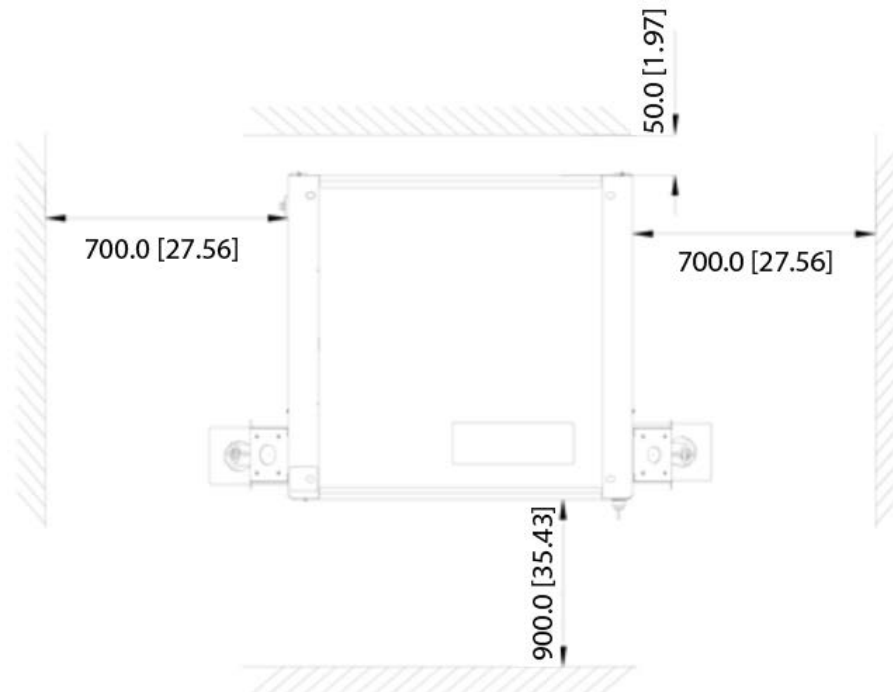
Name	Quantity	Requirements	Image
Slotted screwdriver	1	6 × 150 mm	
Cross screwdriver	1	6 × 100 mm	-
	1	8 × 200 mm	
Force calibration spanner	1	Screw above M5	
Knife	1	Small	
M19 open end spanner	2	Open end 19 mm	-
M5 screw with column	1	Bag hanging in the front door inside	

4.1.2 Required Space for Placing and Maintenance

The surrounding space for installing the EV Charger must meet the following requirements:

- Leave 900 mm at the front side, to open the front door.
- Leave 700 mm at left and right sides, to open the left and right doors.
- Leave 50 mm at the rear side, to ensure unimpeded air flow.

Figure 4-1 Space requirements (mm [inch])

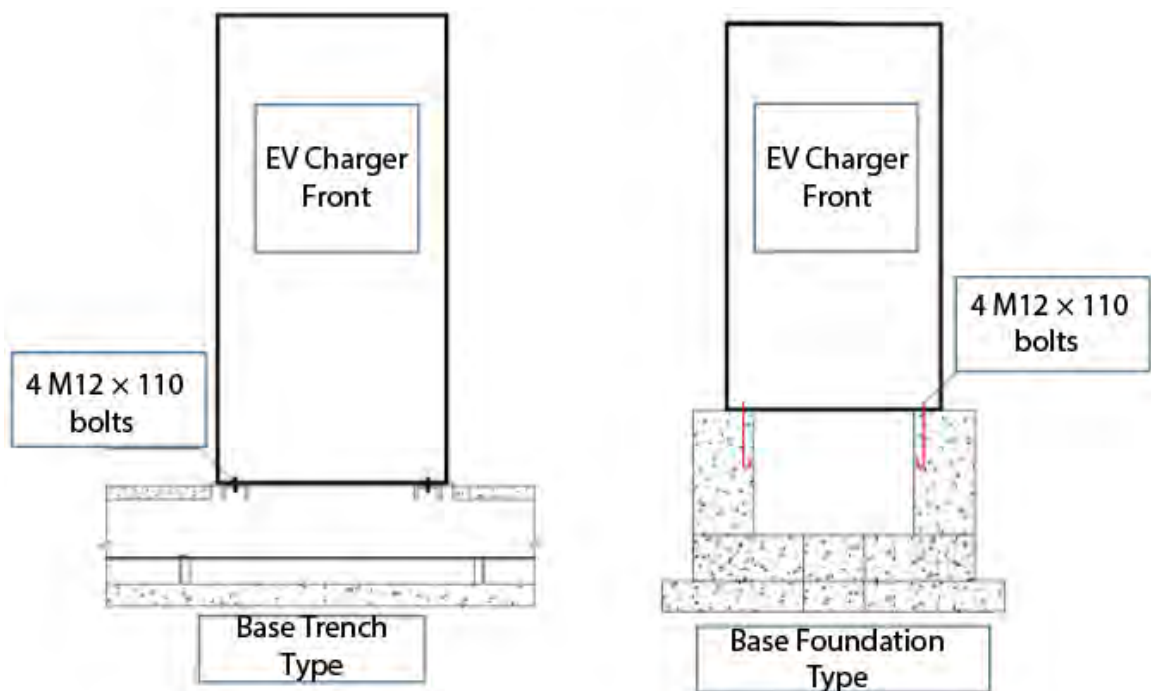


4.1.3 Preparing Installation Foundation

The charger must be installed on the customized concrete cement (No. $\geq$ C20) base.

- The installation base should be no less than 200 mm higher than the horizontal ground if you select base type foundation, or select base type trench, the EV Charger will be level to the ground.
- Installation vertical inclination is $\leq 5\%$.
- The grounding resistance must be $\leq 4 \Omega$.
- 4 M12 $\times$ 110 bolts are embedded in the cement foundation.
- The thread is 50 $\pm$ 3 mm above the ground, and fixed firmly with 4 M12 nuts and elastic flat pads, with a tightening torque of 60 Nm.
- There are 2 options when the EV Charger is placed on soil: trench and foundation.

Figure 4-2 Installation foundation



4.1.4 Moving the EV Charger

We recommend using a forklift to move the EV Charger. Make sure that the charger is placed stabilized.



No swivel eye bolts or bolts with lifting loops on the EV Charger.

Figure 4-3 Move the EV Charger with forklift



- Step 1 Move the forks of the forklift truck in the gaps at the side of the EV Charger.
- Step 2 Move the EV Charger carefully to its location.

4.2 Installation Procedure

4.2.1 Installation Notes

- Fix the EV Charger
The position of the charger foundation should be selected in higher surrounding terrain. After selecting a good position, the entrance of the input cable should be reserved before installing the EV Charger. The entrance of the input cable is located at the bottom of the charger. The base part of the charger should be completely buried in the ground foundation to ensure the stability of the EV Charger.
- Basic circuit inspection
According to the primary circuit design, circuit inspection is mainly used to prevent collision damage during transportation to avoid short circuit caused by accidents.
- External power supply cable
Connect the 3-phase cable embedded in the charger foundation to the input end of the charger body. Pay attention to the connection method of the 4 lines. The line colors at both ends should correspond to the text on the EV Charger. Connect the ground wire to the EV Charger grounding bar.
- Install power modules
The number of power modules is adjusted according to the actual situation of output demand.
- Frequently check the small striker on lightning arrester or indicating window during use. When the striker protrudes or the indicating window turns red, the lightning arrester is damaged and should be replaced immediately.

4.2.2 Unpacking Wooden Box

- Step 1 Use a slotted screwdriver to pry up the fixing buckles around the packing box.

Figure 4-4 Pry up the fixing buckles



Step 2 Remove the packing wooden box: First, remove the upper cover plate (1) of the packing wooden box upward, then remove the front and rear cover plates (2) (wider), and finally, remove the remaining 2 cover plates (3).

Figure 4-5 Remove the packing wooden box

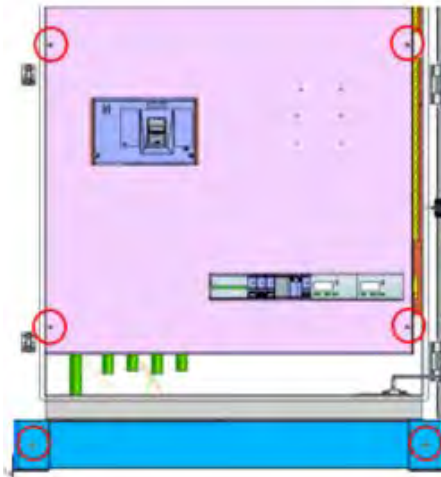


Step 3 Use a paper knife to cut the PE film which is wrapped on the surface of the charger, and then remove the PE plastic bag, PE film and pearl cotton layer on the surface of the charger.

Step 4 Open the front door with the key bound on the front door, and then pull up the limit bar of the front door to fix the front door.

Step 5 Remove the protective plate under the inside of the EV Charger and the front and rear sealing plates of the base: With a cross screwdriver, remove the 4 fixing screws from the protective plate under the charger and the 4 fixing screws from the front and rear sealing plate of the base (all M4 * 12 external hexagonal combination screw). Reserve all the screws for installation of protective plate.

Figure 4-6 Remove the protective plate



Step 6 Remove the wood base fixing screws: The charger station and the wooden base are fixed with four M19 screws and nuts, which need to be removed, before move the charger station.

Figure 4-7 Remove the wood base fixing screws



4.2.3 Installing Charging Module

Charging module can be installed before or after the EV Charger mounting on the ground.

Step 1 Remove the carton package.

Step 2 Remove the plastic protection profiles.

Step 3 Open the right side door and remove the 4 anti-theft screws on the door.

Step 4 Insert the charging module into the cabinet of the EV Charger.



- Module installation direction: the handle of module towards the door.
- Gently handle the charging module. No violent installation.
- Tighten the module screws.

4.2.4 (Optional) Installing Balancer Group

- Step 1 Install the balancer group on both sides of the EV Charger, and fix it with 8 M × 12 anti-theft screws. We recommend fixing the top two screws first.
- Step 2 Hang the charging outlets on the balancer.

4.2.5 Installing EV Charger

- Step 1 Lift the EV Charger on top of the base foundation, and embed the bolts in advance.
- Step 2 Vertically hoist the EV Charger on the concrete foundation, align all the base fixing holes with the concrete embedded bolts, and tighten the nuts.
- Step 3 Install the front and rear sealing plates of the base.

4.2.6 Connecting Power Cable

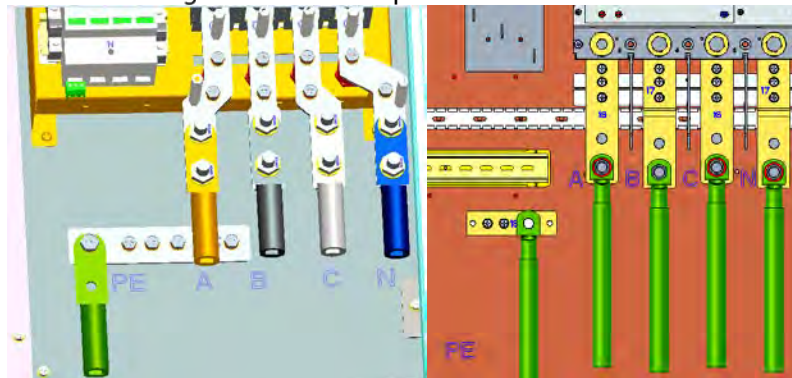
Connect each power supply cable to the correct terminal block indicated with A (L1), B (L2), C (L3), N with torque 30 Nm, and PE with torque 14 Nm.

Make sure that the grounding resistance is $\leq 4 \Omega$.



Hazardous voltage. Make sure that the main switch of the power supply group for the product is set to the OFF position. Perform a voltage check and make sure that the electrical power is disconnected from the system.

Figure 4-8 Connect power cable



The position of PE might vary, depending on the EV Charger.

Figure 4-9 Position of PE



4.2.7 Installing Protective Plate

After installing the power cable, reinstall the protective plate be reinstalled with 4 M4 × 12 fixing screws (2.5 Nm).

Figure 4-10 Install protective plate (1)

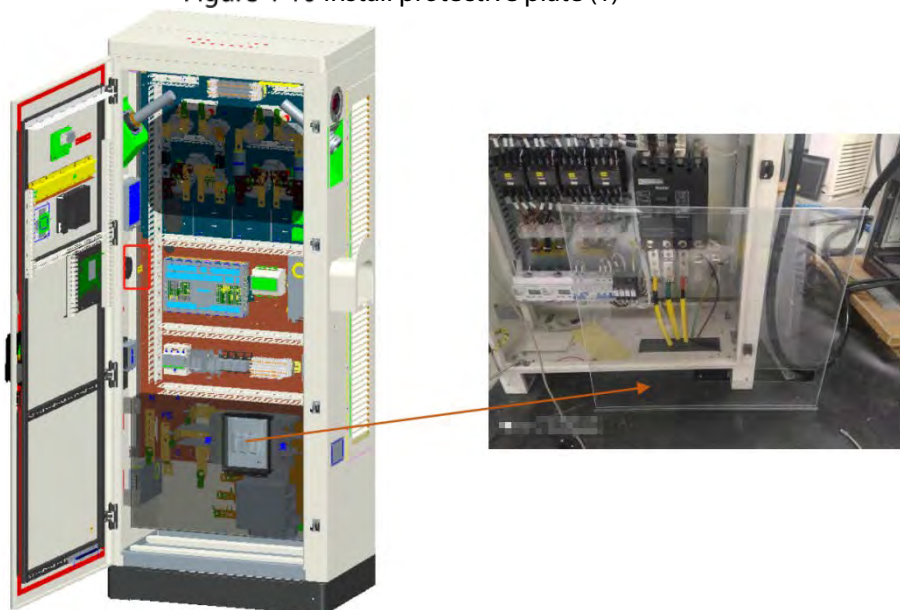
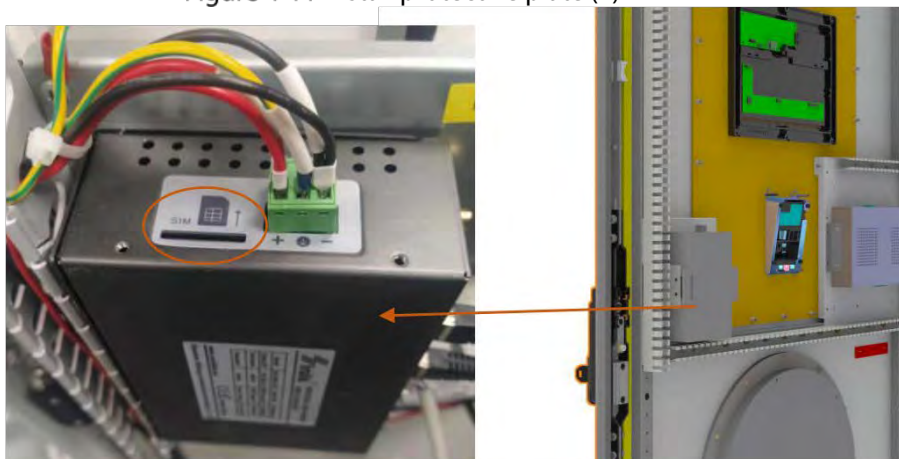


Figure 4-11 Install protective plate (2)



4.2.8 Installing SIM Card

Insert the SIM card into the slot behind the front door of EV Charger.



SIM card is not in the scope of delivery. You need to purchase a local SIM card. If the network connection through SIM card fails, contact our technical support.

4.2.9 Check after Installation

- Clean EV Charger inside, seal the incoming electrical cable.
- Check whether the circuit and components are loose or damaged.
- Check whether the QF0 and QF2 circuit breakers are turned off.
- Check whether the three-phase insulation resistance to ground is normal.

You can check according to the following checklist:

Table 4-2 Checklist

Item	Requirement	Result	Qualified or Not
Side door anti-theft screw torque	3.0 Nm	-	-
Protective plate screw torque	2.5 Nm	-	-
Torque of cable A, B, C, and N screws	30.0 Nm	-	-
Ground screw torque	14.0 Nm	-	-
No short circuit between 3-phase AC air switch terminals and AC contactor terminals	No short circuit	-	-
AC input cable (including N and PE)	Inserted and reliable	-	-
No short circuit between each control circuit, closing circuit, and positive and negative bus bars	No short circuit	-	-
No short circuit between the input and output integrated terminals, and the air switch AC input terminals of the charging module	No short circuit	-	-

5 Commissioning

Commissioning is required after installing the EV Charger. Operations are allowed only after commissioning.

5.1 Initial Commissioning

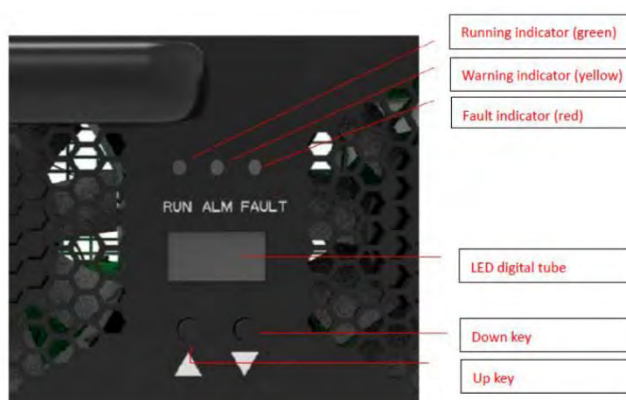
To ensure the safety of personnel and device, the commissioning steps must be strictly followed when the device is powered on. In case of anomaly, shut it down immediately, and commissioning can be continued only when the anomaly is troubleshot.

- Check before power on: Make sure that there is no short circuit between the input and output of the system.
- Initial adjustment of AC distribution: Make sure that the AC input voltage ranges $400\text{ VAC} \pm 10\%$.
- Initial adjustment of charging module: The working output is within the defined voltage and current ranges.
- Turn on QF0 AC incoming switch, and the device enters position in readiness.

5.2 Setting Module Address

Module parameters can be set through the module key page. The parameters include module address and module group number, which can only be changed by pressing the key when the module is in standby mode and the grouping mode is dynamic grouping.

Figure 5-1 Module setting interface



Procedure

- Step 1** Press ▲ or ▼ to switch the information page.
To change the interface information, press ▲ or ▼ and hold about 3 seconds.
- Step 2** Press ▲ or ▼ to change the value when the displayed information flashes.
- Step 3** Press ▲ or ▼ and hold about 3 seconds to save the changes.



- The address allocation of module is fixed by default. The module address can be set by pressing the key. The address setting range is $0 \times 00 - 0 \times 3E$. The module address must be set as shown on the label in the EV Charger (see the figure below). The module address of RM1 is 0×00 , RM2 is 0×01 , RM3 is 0×02 , RM4 is 0×03 , RM5 is 0×04 , and RM6 is 0×05 .
- Set the address allocation mode to dynamic allocation through monitoring. At this time, the module group number can be set by pressing the key. The group number setting range is $0 \times 00 - 0 \times 07$.

Figure 5-2 Module label



Example

- Modify the module address form 0×00 to 0×04 :
 - Step 1 Press ▼ to display page 3, and the page of 00 appears.
 - Step 2 Press ▲ or ▼, and hold about 3 seconds.
 - Step 3 When the page flashes, press ▲ to page 04.
 - Step 4 Press ▲ or ▼, and hold about 3 seconds to save the changes.
- Modify the module group address form 0×000 to 0×004 :
 - Step 1 Press ▼ to display page 4, and the page of 000 appears.
 - Step 2 Press ▲ or ▼, and hold about 3 seconds.
 - Step 3 When the page flashes, press ▲ to page 04.
 - Step 4 Press ▲ or ▼, and hold about 3 seconds.

6 Maintenance

- The EV Charger is cooled by forced air. Keep the EV Charger in a ventilated location and do not block the air vents of the EV Charger.
- Clean or replace the air filters regularly to ensure the EV Charger works properly. Following is the recommended frequency in which maintenance should be performed:

Table 6-1 Recommended maintenance interval

Environment Condition	Maintenance Period
Extremely dusty areas, such as locations next to construction sites	Every 15 days
Moderately dusty areas, such as locations next to roads with traffic	Every month
Lightly dusty areas, such as residential areas and bus stations in the city	Every 3 months
Slightly dusty areas, such as underground parking lots	Every 6 months

- Clean the EV Charger at least 3 times a year, and keep its exterior clean at all times.
- Clean the outside of the cabinet with damp cloth or wet cotton towel. Use only low-pressure tap water and cleaning agents with PH level between 6 to 8.
- Do not apply high-pressure water jets.
- Do not use cleaning agents with abrasive components and do not use abrasive tools. Improper cleaning agents might spoil coating, painting, surface and durability of all exterior parts.
- If water leaks into the EV Charger, cut off the power immediately, and contact the EV Charger provider for repair.
- Make sure to return the charging connector to its holder after you complete a charge to prevent it from becoming damaged.
- If there is damage to the charging connector, charging cable or holder of the charging connector, contact the Charger provider.
- Handle the EV Charger when using it. Do not strike or scrape the cabinet or touch screen.
- If the enclosure or screen is broken or cracked, opens, or shows any other damage signs, contact the EV Charger provider.



WARNING

Danger of electrical shock or injury. Turn **off** power at the panel-board or load center before working on the device or removing any component. Do not remove circuit protective devices or any other component until the power is turned **off**.

Table 6-2 EV Charger maintenance suggestions

Item	Period	Required Time (min)	Tool
Appearance examination	Once per year	15	-
Dust cleaning	Once per year	30	-
Check the fixing torque of AC input cable	Once per year	15	Torque wrench
Output cable: check whether connectors, cables and their connections are intact	Once per year	15	Torque wrench
Check whether the micro switch circuit breaker and fuse in the circuit work normally	Once per year	15	Multi-meter
Check the correct operation of the cabinet fan	Once per year	2	-
Clean the operating panel	Once per year	15	-

Appendix 1 Abbreviations

No.	Abbreviation	Description
1	IEC	International electrotechnical commission.
2	EV	Electrical vehicle. This can be battery EV (BEV) or plug-in hybrid EV (PHEV).
3	EVSE	Electric vehicle supply device [IEC61851-1].
4	kW	Kilo watts. Unit of power.
5	A	Ampere. Unit of current.
6	V	Volt. Unit of voltage.
7	Hz	Hertz. Unit of frequency.
8	LCD	Liquid crystal display.
9	RFID	Radio frequency identification.
10	CMS	Central management system. Manages EVSE and has the information for authorizing users for using its EVSE.
11	OCPP	Open charge point protocol. A standard open protocol for communication between EVSE and a central system, and is designed to accommodate any type of charging technique. (www.openchargealliance.org)
12	IP	Ingress protection.
13	PE	Protective earthing.
14	HMI	Human-machine interface.
15	RCMU	Residual current monitoring unit.
16	MCB	Miniature circuit breaker.
17	OBC	On-board charger (of an EV).
18	RoHS	Restriction of hazardous substances.
19	REACH	Registration, evaluation and authorization of chemicals.

Appendix 2 Security Recommendation

1. Account Management

1.1 Use complex passwords

Please refer to the following suggestions to set passwords:

- The length should not be less than 8 characters;
- Include at least two types of characters: upper and lower case letters, numbers and symbols;
- Do not contain the account name or the account name in reverse order;
- Do not use continuous characters, such as 123, abc, etc.;
- Do not use repeating characters, such as 111, aaa, etc.

1.2 Change passwords periodically

It is recommended to periodically change the device password to reduce the risk of being guessed or cracked.

1.3 Allocate accounts and permissions appropriately

Appropriately add users based on service and management requirements and assign minimum permission sets to users.

1.4 Enable account lockout function

The account lockout function is enabled by default. You are advised to keep it enabled to protect account security. After multiple failed password attempts, the corresponding account and source IP address will be locked.

1.5 Set and update password reset information in a timely manner

Our device supports password reset function. To reduce the risk of this function being used by threat actors, if there is any change in the information, please modify it in time. When setting security questions, it is recommended not to use easily guessed answers.

2. Service Configuration

2.1. Enable HTTPS

It is recommended that you enable HTTPS to access Web services through secure channels.

2.2 Encrypted transmission of audio and video

If your audio and video data contents are very important or sensitive, we recommend you to use encrypted transmission function in order to reduce the risk of your audio and video data being eavesdropped during transmission.

2.3 Turn off non-essential services and use safe mode

If not needed, it is recommended to turn off some services such as SSH, SNMP, SMTP, UPnP, AP hotspot etc., to reduce the attack surfaces.

If necessary, it is highly recommended to choose safe modes, including but not limited to the following services:

- SNMP: Choose SNMP v3, and set up strong encryption and authentication passwords.
- SMTP: Choose TLS to access mailbox server.
- FTP: Choose SFTP, and set up complex passwords.
- AP hotspot: Choose WPA2-PSK encryption mode, and set up complex passwords.

2.4 Change HTTP and other default service ports

It is recommended that you change the default port of HTTP and other services to any port between 1024 and 65535 to reduce the risk of being guessed by threat actors.

3. Network Configuration

3.1 Enable Allow list

It is recommended that you turn on the allow list function, and only allow IP in the allow list to access the device. Therefore, please be sure to add your computer IP address and supporting device IP address to the allow list.

3.2 MAC address binding

It is recommended that you bind the IP address of the gateway to the MAC address on the device to reduce the risk of ARP spoofing.

3.3. Build a secure network environment

In order to better ensure the security of devices and reduce potential cyber risks, the following are recommended:

- Disable the port mapping function of the router to avoid direct access to the intranet devices from external network.
- According to the actual network needs, partition the network: if there is no communication demand between the two subnets, it is recommended to use VLAN, gateway and other methods to partition the network to achieve network isolation.
- Establish 802.1x access authentication system to reduce the risk of illegal terminal access to the private network.

4. Security Auditing

4.1 Check online users

It is recommended to check online users regularly to identify illegal users.

4.2 Check device log

By viewing logs, you can learn about the IP addresses that attempt to log in to the device and key operations of the logged users.

4.3 Configure network log

Due to the limited storage capacity of devices, the stored log is limited. If you need to save the log for a long time, it is recommended to enable the network log function to ensure that the critical logs are synchronized to the network log server for tracing.

5. Software Security

5.1 Update firmware in time

According to the industry standard operating specifications, the firmware of devices needs to be updated to the latest version in time in order to ensure that the device has the latest functions and security. If the device is connected to the public network, it is recommended to enable the online upgrade automatic detection function, so as to obtain the firmware update information released by the manufacturer in a timely manner.

5.2 Update client software in time

It is recommended to download and use the latest client software.

6. Physical Protection

It is recommended that you carry out physical protection for devices (especially storage devices), such as placing the device in a dedicated machine room and cabinet, and having access control and key management in place to prevent unauthorized personnel from damaging hardware and other peripheral equipment (e.g. USB flash disk, serial port).