



EV DC Charging Station

Quick Start Guide

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Symbol Conventions

The symbols that may be found in this document are defined as follows.

Symbol	Description
 Note	Provides additional information to emphasize or supplement important points of the main text.
 Caution	Indicates a potentially hazardous situation, which if not avoided, could result in equipment damage, data loss, performance degradation, or unexpected results.
 Danger	Indicates a hazard with a high level of risk, which if not avoided, will result in death or serious injury.

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Chapter 1 Introduction

1.1 Product Introduction

The EV DC Charging Station (hereinafter referred to as "device") provides safe and reliable charging services and complies with international charging interface standard. It is a dedicated power supply device that provides DC power for electric vehicles with on-board chargers using mode 4 and case C connection. The device delivers an intuitive human-machine interface with user-friendly operations, featuring high system stability and reliability. It supports Ethernet access, enabling real-time communication with operation platforms and allowing it to receive commands from monitoring centers to limit the output power of on-board chargers. The device continuously monitors charger connection status, and dynamically adjusts charging parameters based on data feedback from EV BMS (Battery Management System). In case of abnormal connections, charging is stopped immediately to ensure safety for both users and EVs during the charging process.

The device can be installed in various places such as along highways, EV charging/battery swap stations, public parking lots, tourist route parking areas, commercial squares, etc., providing daily fast-charging services for EVs that meet the requirements.

1.2 Product Overview

The device appearance is shown as below.



The device appearance may vary with device model. The actual device shall prevail.

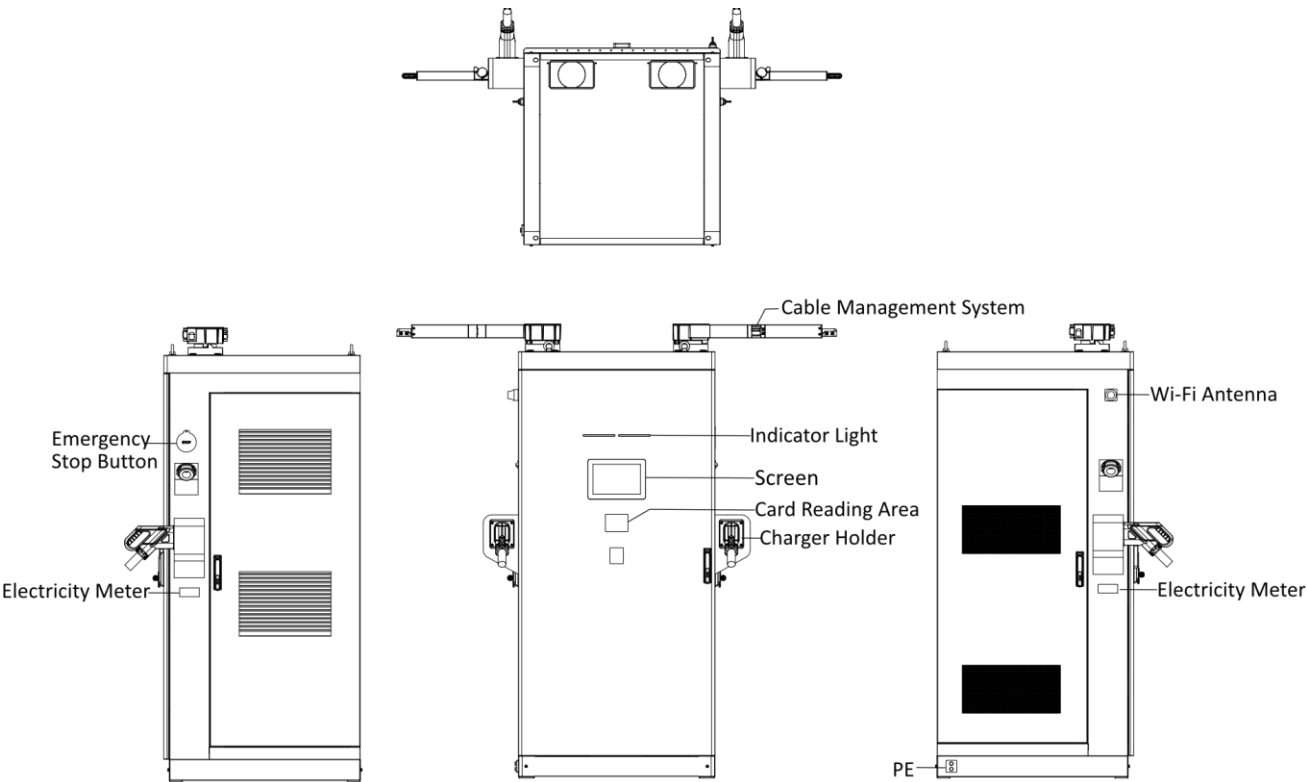


Figure 1-1 Device Appearance

Table 1-1 Appearance Description

Name	Description
Emergency Stop Button	Press the button to stop charging when an exception occurs. Rotate the button clockwise to restore the button.
Electricity Meter	Displays real-time power consumption information.
Cable Management System	Used to organize charger cables.
Indicator Light	● Solid green indicates the device is idle. ● Green flashing indicates charger is plugged in but not charging. ● Blue flashing indicates the device enters pre-charging stage. ● Solid red indicates the device is charging. ● Yellow flashing indicates device failure.
Screen	For screen display.
Card Reading Area	Swipe card to start or stop charging in charging by card mode.
Charger Holder	Used to hold the charger when not in use.
Wi-Fi Antenna	Connects to Wi-Fi antenna.
PE	Connects the PE to the ground.

Chapter 2 Installation

2.1 Packing List

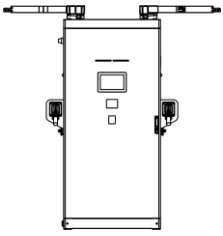
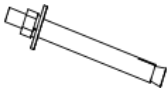
When you receive the product, check whether there is obvious damage on the product package and its appearance first. Then open the package and check whether all the accessories are included. If something is lost, contact us or our supplier.



Note

The appearance and accessories may vary with device model. Please refer to the actual device.

Table 2-1 Packing List

No.	Picture for Illustration	Name	Quantity
1		EV DC Charging Station	1
2		Key	1
3		Expansion Bolts	4
4		Regulatory Compliance and Safety Information	1

2.2 Preparation

2.2.1 Installation Environment

- Install the device on a concrete or steel channel foundation, and allow sufficient space around the device for operation.
- The recommended height of the device base is 200 mm.
- The installation position should be located away from the building's fume outlets and residential areas to avoid noise complaints.

2.2.2 Tool Preparation

Prepare the following tools and instruments before installation.

- Tools:

Electric drill set (including drill bits), straight screwdriver, wrench, crimping pliers, RJ-45 connector crimping pliers, tube crimping pliers, diagonal cutting pliers, wire stripper, pipe cutter, wire label printer (with label paper), combination socket set, hot air gun, electric screwdriver, electrical tape, torque wrench, cable ties, hydraulic pliers, labour gloves, insulating gloves, brush, cotton cloth, tape measure, level, marking pen, rubber hammer, etc.

- Instruments:

Multimeter, clamp meter, ground resistance tester, network cable tester, and megohmmeter.

2.2.3 Safety Precautions

- Cut off the power supply of all relevant devices before installation.
- All electrical work must comply with the latest electrical regulations, fire safety regulations, and relevant local regulations.
- Do not perform live work for personal safety. Measure and verify the voltage of the exposed wires before construction. All connection points must be properly insulated.
- Insulate tools before use.
- Avoid construction on rainy days or in high humidity conditions. Ensure that cable joints, terminals and internal components of the device are not wet or soaked by rain.
- If the device will not be installed for a certain time, store it in a dry environment to prevent moisture ingress.
- Select cables that comply with relevant electrical industry standards. The recommended cable specifications are shown below.
 - For 180 kW devices, the recommended specification is YJV22-3 × 185 mm² + 2 × 95 mm².
 - For 240 kW devices, the recommended specification is YJV22-3 × 240 mm² + 2 × 120 mm².
 - For 320 kW devices, the recommended specification is YJV22-3 × 150 mm² + 2 × 70 mm² (2 sets).
 - For 400 kW devices, the recommended specification is YJV22-3 × 185 mm² + 2 × 95 mm² (2 sets).



Note

The cable model YJV22 refers to an IEC-standard compliant power cable with the following construction: XLPE (Cross-linked polyethylene) insulated, PVC (Polyvinyl chloride) sheathed, and steel tape armored, rated at 0.6/1 kV.

For example, "YJV22-3 × 185 mm² + 2 × 95 mm²" represents a cable consisting of 3 cores of 185 mm² and 2 cores of 95 mm².

2.3 Lay Cables

Lay the cables that need to be connected, including the network cable, power cord, etc. The AC input cables (A, B, C, N, PE) must have a minimum length of 660 mm, 590 mm, 470 mm, 520 mm, and 460 mm respectively, with a tolerance of ± 100 mm. For 320 kW and 400 kW devices, at least two sets of cables must be laid.



Caution

- Check the power supply voltage to prevent any device damage caused by improper voltage.
- All cables between the distribution cabinet and the device must be continuous (no taps/splices) and undamaged during installation.

2.4 Install Device

Before You Start

- Connect the GND connector on the device base to the ground.
- Disconnect the power supply of all relevant devices.

Step 1 Make a concrete foundation on the horizontal ground, and install the conduit bushing.

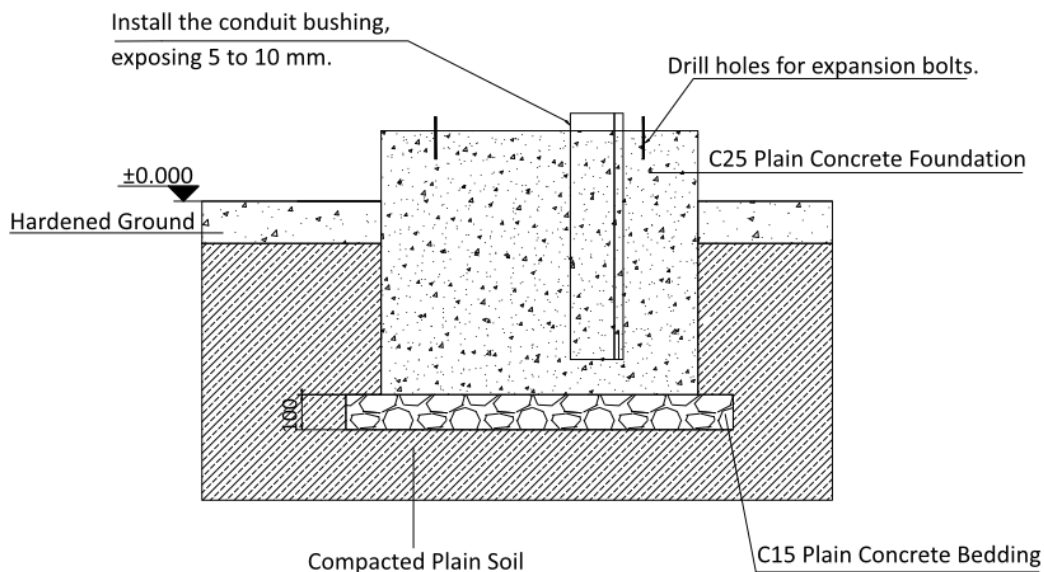


Figure 2-1 Make Foundation



Note

The foundation should be larger than the device base.

Step 2 Drill holes on the foundation according to the hole dimensions at the bottom of the device.

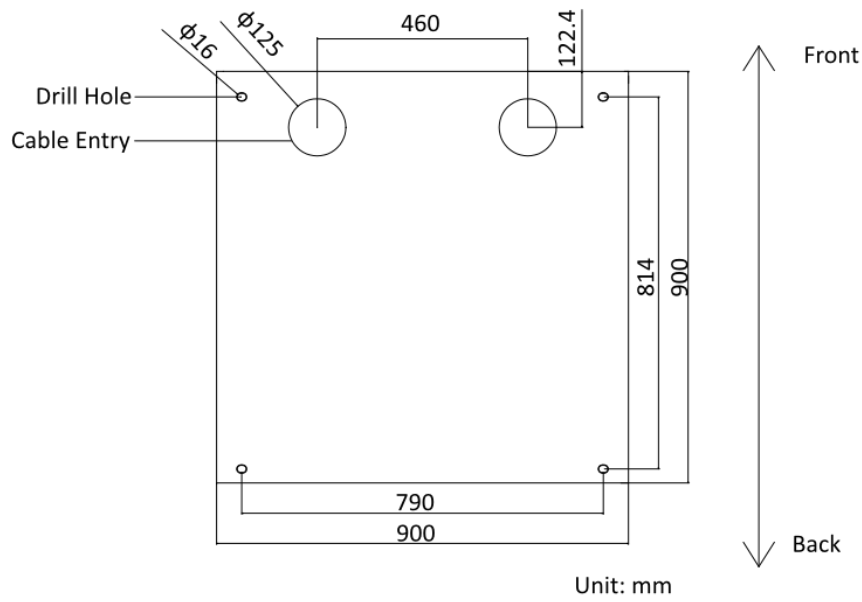


Figure 2-2 Drill Holes

Step 3 Insert four M12 × 150 expansion bolts into the foundation, leaving 40 ± 3 mm of the bolts exposed above ground.

Step 4 Align the holes at the bottom of the device with the expansion bolts, and then tighten nuts to fix the device.

Step 5 Open the device front door, and loosen the screws to remove the lower AC PC cover.

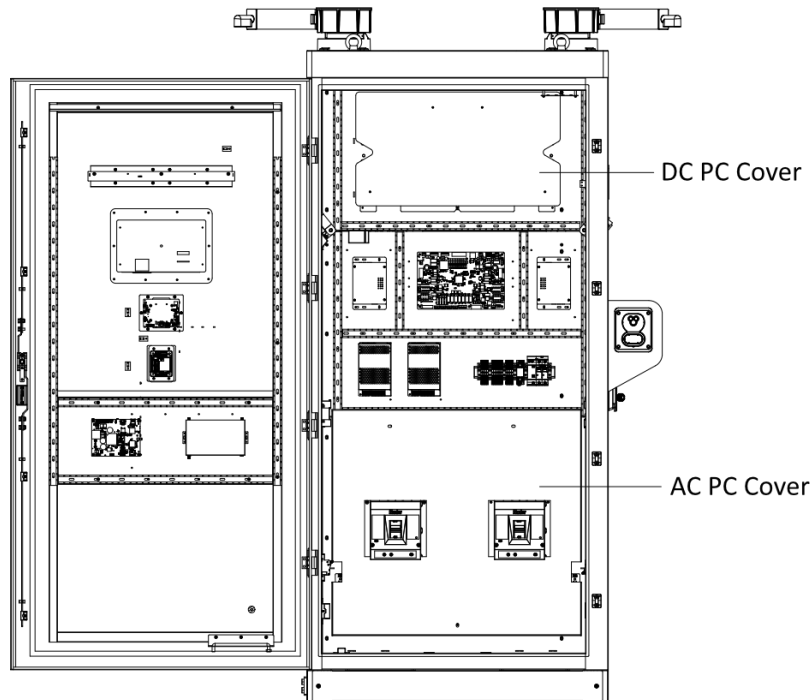


Figure 2-3 Remove AC PC Cover

Step 6 Connect the laid three-phase (A, B, C), Neutral (N), and ground (PE) cables to the corresponding terminals of the device. Route cables to the upstream distribution cabinet via the preset cable trench or tray.

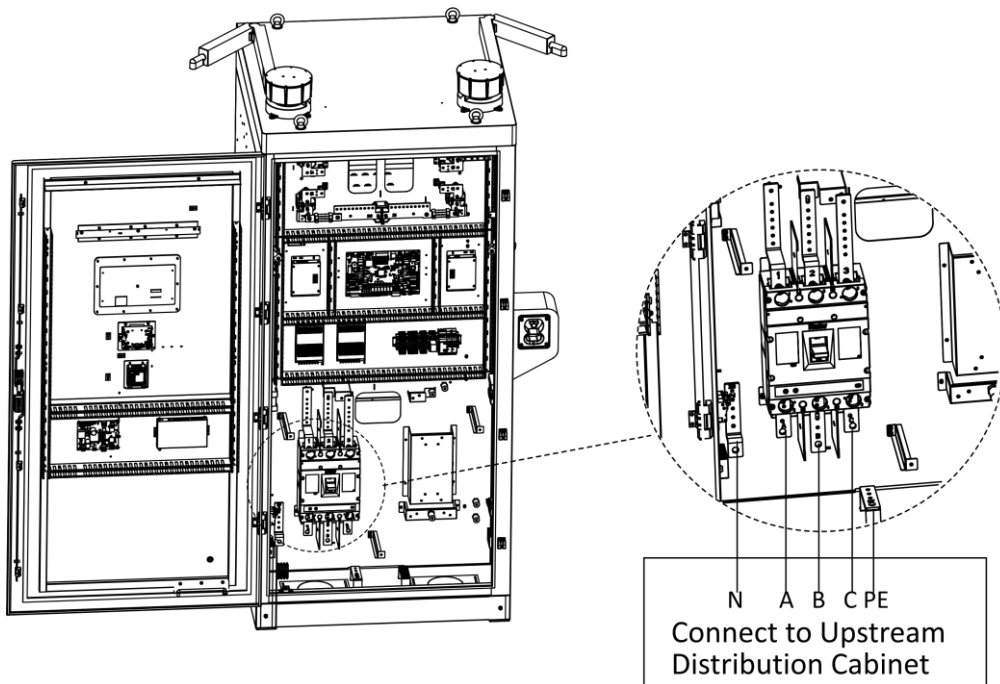


Figure 2-4 Connect Power Cables (180 to 240 kW)

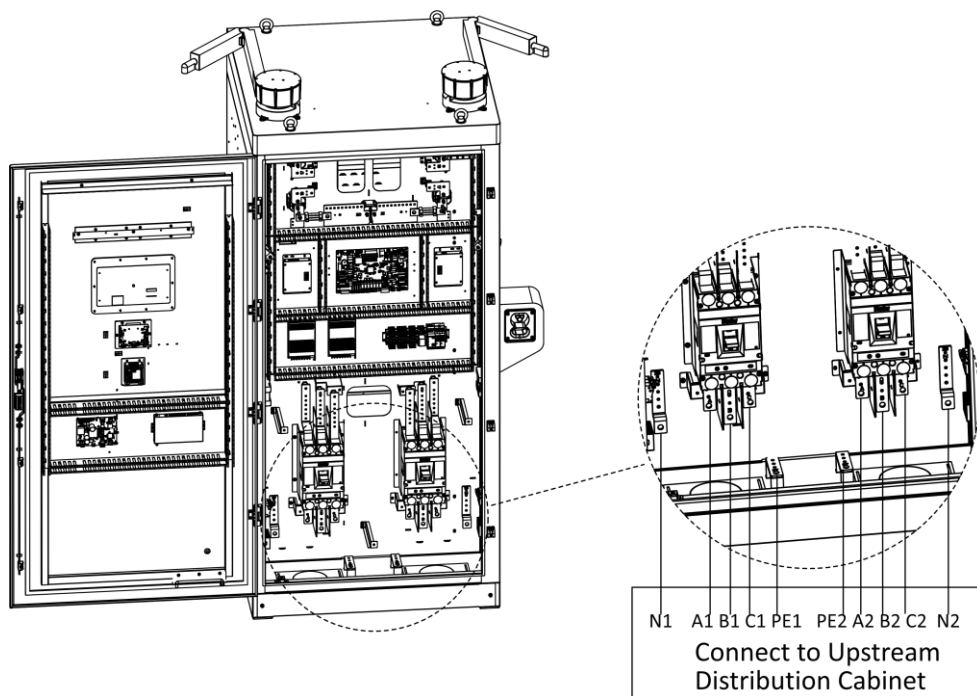


Figure 2-5 Connect Power Cables (320 to 400 kW)

 Caution

- Cut off the power before wiring to prevent electrical hazards.
- The ground bus-bar resistance must be $\leq 4 \Omega$. Ensure proper grounding for personnel and device safety.
- Block the cable entry using fire-proof mud with a minimum thickness of 20 mm.

Step 7 Connect the laid network cable to the network interface of the device, and then organize and secure all cables.

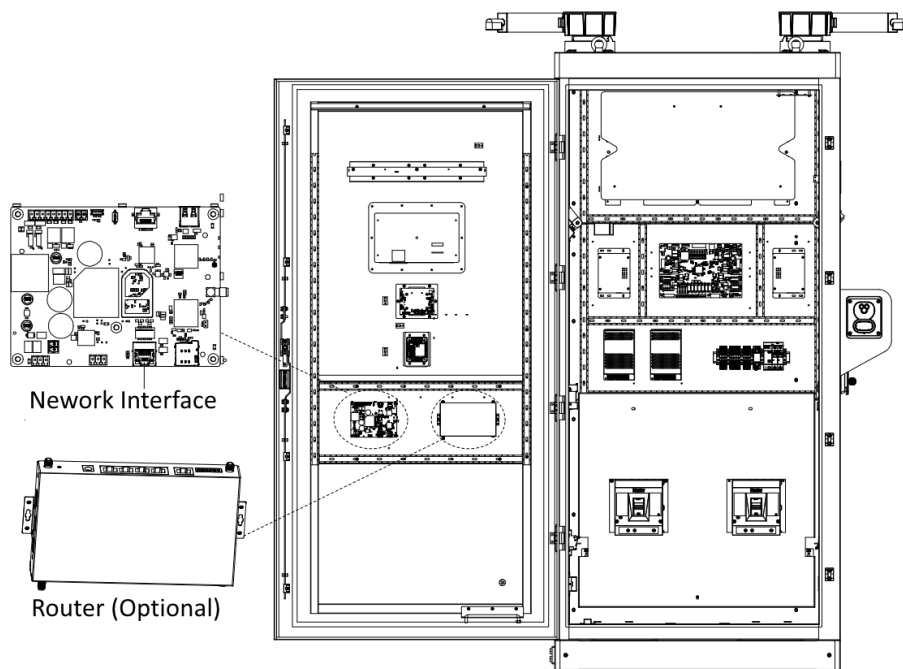


Figure 2-6 Connect Network Cables

Step 8 Replace the AC PC cover, and close the front door.

2.5 Install Modules

Open the side door of the device, slide the modules into the upper and lower module compartments respectively, and then secure them with M5 screws.

 Note

The device appearance and the number of modules may vary depending on the actual product.

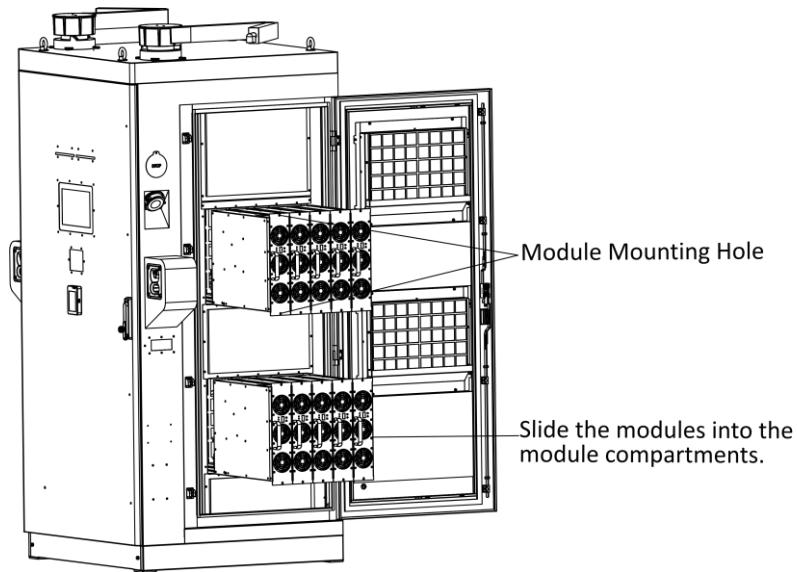


Figure 2-7 Install Modules

2.6 Startup

After correct installation and wiring, connect the power supply, turn on the miniature circuit breaker (MCB) and molded-case circuit breaker (MCCB) in sequence, and then enable the residual-current device (RCD) to power on the device.

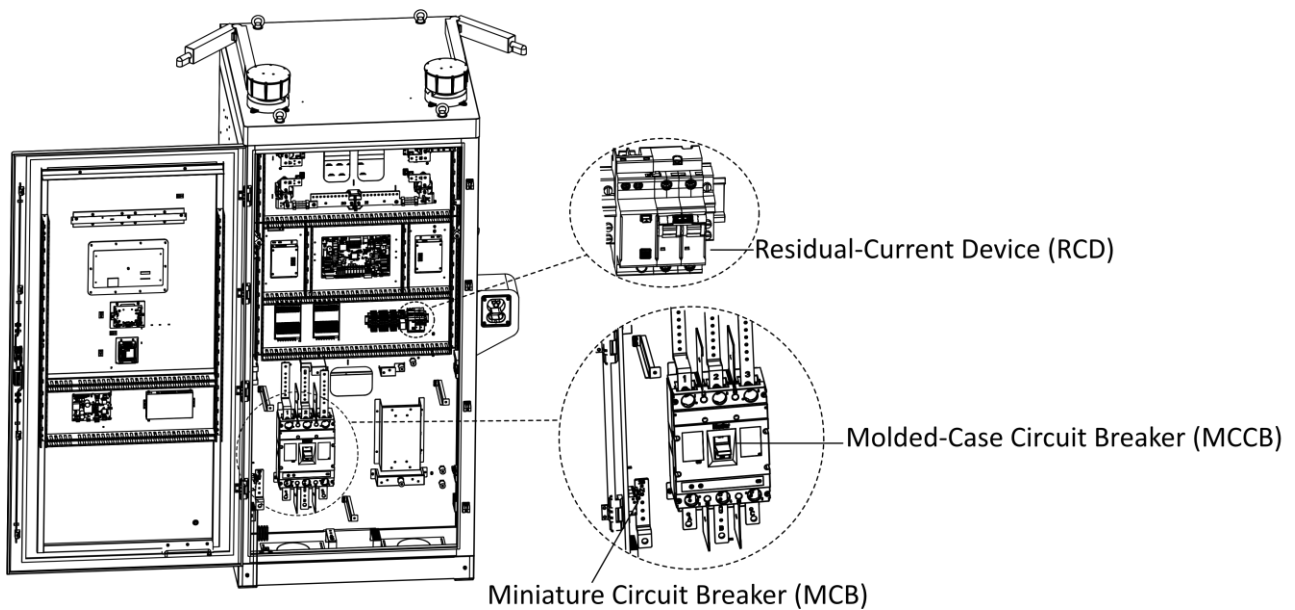


Figure 2-8 Power On (180 to 240 kW)

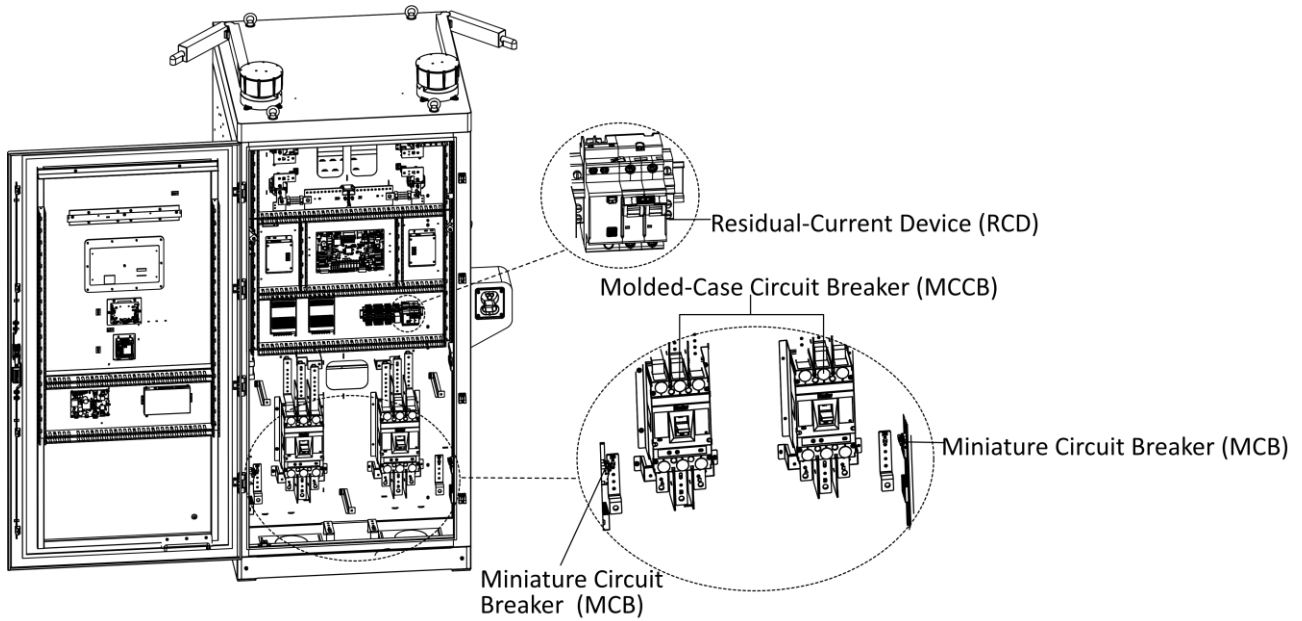


Figure 2-9 Power On (320 to 400 kW)

Note

If the device fails to start up, check if the device cables are properly connected. If the cable connections are correct, check the cable routing.

Chapter 3 Peripheral Configuration

Configure the protocol and address settings for the charging module to ensure system operation.

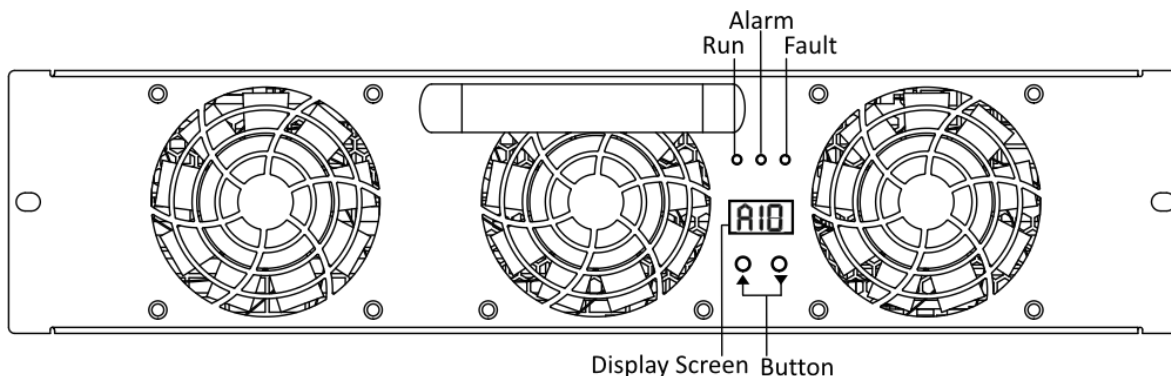


Figure 3-1 Charging Module Panel

3.1 Set Protocol

Step 1 Press the ▲ or ▼ button on the module, and the display screen will show “A10”.

Step 2 Hold ▲ or ▼ for more than 2.5 s to enter configuration mode, and “00A” will be displayed.

Step 3 Press ▲ or ▼ to set the screen to “00b”.

Step 4 Hold ▲ or ▼ for more than 2.5 s to save the settings.

3.2 Set Address

After the protocol is configured, follow the steps below to set the charging module address.

Step 1 Press ▲ or ▼ on the module, and the screen will display “80”.

Step 2 Hold ▲ or ▼ for more than 2.5 s to enter configuration mode.

Step 3 Press ▲ or ▼ to set the screen to “60”.

Step 4 Hold ▲ or ▼ for more than 2.5 s to save the settings.



Note

Please set the module address in sequence starting from 60 (e.g., 61, 62, 63). For more details about address codes, please contact our technical support.

Result

After the protocol and address are set, the run indicator will be steady green.

