

User Manual

AEU160 Charging System

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In case of any doubt regarding a subject described or if you discover an error in this manual, please contact us.

Contents

Legal Notice 1
Contents 2
Abbreviations 3
1 Introduction 4
1.1 Function of this document 4
1.2 Target user 4
1.3 Version and revision history 4
1.4 Disclaimer 4
1.5 Copyright 5
1.6 Supplier 5
1.6.1 APAC 5
2 Safety 6
2.1 General safety 6
2.2 Safety symbols 7
2.3 Safety guidelines for use 8
2.4 Fire emergency response plans 9
2.4.1 Initiation of the plan 9
2.4.2 Contingency procedures 9
2.4.3 Concluding fire emergency response 10
2.5 Emergency stop 10
3 Product overview 11
3.1 Nameplate 11
3.2 External view 12
3.3 Charging connector types 14
3.4 Status of the LED indicator 14
4 Using instructions 15
4.1 Prerequisites 15
4.2 UI exploration 15
4.3 Charging process 16
4.3.1 Charging mode 16
4.3.2 Charging operation 17
4.4 Error information 19
Customer service 20

Abbreviations

CHAdeMO	CHArge de MOve
CMS	Cable management system
DC	Direct Current
EV	Electric Vehicle
EVSE	Electric Vehicle Supply Equipment
LED	Light Emitting Diode
RFID	Radio Frequency Identification
UI	User Interface

1 Introduction

1.1 Function of this document

This manual is only for the charging system, a type of equipment that charges electric vehicles (EVs). This manual tells you how to safely use the electric vehicle supply equipment (EVSE) indoors and outdoors.

1.2 Target user

This guide is for people who use the charging system to charge their electric cars with direct current (DC).

1.3 Version and revision history

The version of this document is V1.0.0 and the revision history is as follows.

Version	Date	Description
V 1.0.0	15th May 2026	Initial version

Table 1-1 Version of the user manual

1.4 Disclaimer

- This manual has been carefully reviewed by experts before it was published. It will be updated regularly to include any necessary changes or additions.
- The information in this manual is for informational purposes only.
- This manual, related manuals, and warnings do not replace your responsibility to use common sense when working with the EVSE.
- Acrel has done its best to make sure the manuals are accurate and up-to-date, but they are not responsible for any problems or damage that may come from using the information in them.
- Acrel is not responsible for any direct, indirect, special, or consequential damages (including loss of profits) that may come from any errors or omissions in this manual. All of Acrel's obligations are stated in the relevant contracts. Acrel reserves the right to change this manual from time to time.

- Any changes to the EVSE, including but not limited to user-specific modifications to the EVSE (such as placing stickers, SIM cards, or using different colors), hereinafter referred to as "Customization", may affect the final product's user experience, appearance, quality, and/or lifespan.
- Acrel is not responsible for any damage to or caused by the product "Customization" and is not responsible for any damages, losses, costs, or expenses resulting from the improper handling of the product.
- Contact your dealer for more information on "Customization" versus the default product.

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1.6 Supplier

1.6.1 APAC

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2 Safety

The charging system from Acrel is only meant to be used for charging EVs. To use it safely and properly, it is important to follow the instructions in this manual and on the EVSE itself, as well as all local rules and regulations.

2.1 General safety

- Do not use the EVSE:
  - Near explosives or flammable substances.
  - In or near water.
  - If it is visibly damaged.
- Do not clean the EVSE with running water or a pressure washer.
- Do not change or modify the EVSE unless Acrel has approved it.
- Do not wrap the cables around the EVSE while charging.
- Do not put the connector on the ground. Put it in its holder after charging.
- Only do things that are described in this manual or the related manual, and that you are qualified to do.
- Follow the safety rules and accident prevention rules for the EVSE and the area where it is used.
- Make sure the EVSE is used in the environmental conditions that are specified for it. For more information about environmental conditions, see Chapter 9.1.4 in the technical manual.
- Only qualified electricians (Acrel certified partners) should install, operate, commission, and maintain the EVSE.
- All installation and wiring must be done when the AC cables are not energized. This means that the EVSE cannot be turned on during this process. This helps to prevent electrical accidents, short circuits, and electric shock hazards. It makes sure that the system is not turned on during risky procedures, which reduces the chance of fires during installation or maintenance.
- When handling electrical connections, always follow safety protocols, wear the necessary personal protective equipment (PPE), and use insulated tools.
- Follow the local rules and the instructions in this manual. If any requirements in this manual are not the same as the local rules, follow the local rules or the stricter of the two, as allowed by law.

2.2 Safety symbols

Symbols	Meanings
	Electric hazard: This symbol indicates that there is a danger of electric shock. Failure to pay attention to the procedures, practices or improper implementation may cause injuries or death.
	Caution: This symbol indicates that there is a hazard that could damage the product.
	Tips: This symbol indicates that the information is helpful or provides useful advice. It does not contain any information about danger or harm.
	Garbage disposal: This symbol indicates that the electrical and electronic equipment and their accessories should be disposed of separately from household waste.

Table 2-1 Safety symbols

2.3 Safety guidelines for use

Here are some tips for you to safely use the EVSE and prevent fires:

- Follow instructions**:** Read and follow the user manual or instructions provided by your electric vehicle (EV) and Acrel. This includes how to properly connect and disconnect your vehicle to the charging station and how to charge safely.
- Inspect the EVSE before use: Before plugging in your vehicle, look over the charging cable, connectors, and the EVSE itself for any signs of damage, fraying, or loose connections. If you see anything wrong, don't use it. Report the problem to the owner of the station or Acrel.
- Use compatible charging equipment: Make sure that the charging cable and connector you use are compatible with your EV model. Using the wrong charger can increase the risk of overheating or electrical problems.
- Avoid charging in extreme weather: Extreme heat or cold can affect the charging process and potentially cause a fire. If possible, avoid charging in severe weather conditions.
- Keep the charging area clear: Make sure that the charging area is free of flammable materials, liquids, or obstructions. Keep a safe distance from other vehicles or objects to prevent any accidental collisions or damage.
- Never leave charging unattended: It may be tempting to leave your vehicle charging while you're away, but it's important to stay nearby and keep an eye on the charging process. If there's a problem, you can take immediate action.
- Hold the connector correctly: This will help to keep it safe and prevent damage.
- Regularly inspect and maintain your EV: Proper maintenance of your EV is crucial to preventing potential fire hazards. Check the battery, electrical system, and overall condition of the vehicle regularly, as recommended by the manufacturer.
- Be cautious with third-party accessories: If you use third-party charging accessories, such as adapters or extension cords, make sure they are certified for EV charging and meet the necessary safety standards. Faulty accessories can pose a fire risk.
- Report any abnormalities: If you notice anything unusual or experience difficulties during the charging process, such as sparks, smoke, or unusual sounds, immediately stop charging and report the issue to the owner of the station or Acrel.
- Be prepared for emergencies: Know where the fire extinguishers and emergency shutdown procedures are at the charging station. Keep a fire extinguisher handy and know how to use it effectively.
- Stay informed about safety updates: Stay up to date on safety guidelines and recommendations related to electric vehicle charging. Follow any safety alerts or recalls issued by the charging station manufacturer or relevant authorities.

2.4 Fire emergency response plans

2.4.1 Initiation of the plan

If a fire happens, tell the emergency command leading group right away. Everyone must follow the orders of the emergency response team to help rescue people and clean up the damage.

2.4.2 Contingency procedures

- If you see a fire accident:
  - Stop charging immediately. If the fire is in the charging station, stop the charging process to prevent the fire from getting worse.
  - Turn off the power. Press the emergency stop button right away to prevent the fire from spreading.
  - Call the fire department. Call the fire department right away and tell them where the fire is.
  - Evacuate safely. Get away from the fire quickly and stay away from it.
  - Use a fire extinguisher (if possible). If the fire is small, you can use a fire extinguisher to put it out. But make sure you use the right type of fire extinguisher.
- If there is a fire:
  - Tell your supervisor right away.
  - If the fire is small and you can control it, use a fire extinguisher to put it out. While you are doing this, tell people at all levels about the fire.
  - Have at least two people fight the fire. Stand upwind, crosswind, or in a safe position.
  - If you cannot control the fire, have everyone in the area evacuate immediately.
  - If the fire gets bigger, the person in charge must evacuate everyone immediately.
  - Tell employees in the affected area to go to the assembly point along the designated route. Follow the instructions of the person in charge of the company.
  - The emergency response team (ERT) will organize rescue efforts according to the fire.
  - If you cannot control the fire, report it to the government department in time for support. Cooperate with the fire brigade for rescue efforts.
  - Collect information about what happened before the fire, what the monitoring system showed, and what witnesses saw. This will help you to understand what caused the accident. You will need to share this information with the owner and the site.
  - Give the local fire department the information they need to investigate the cause of the fire.

- If the company did not cause the losses, the local branch will claim compensation from the relevant parties. The company's EHS and risk control center will provide support and cooperation.

2.4.3 Concluding fire emergency response

When the emergency crews have finished their work, the people in charge of emergencies will announce that the disaster is over and the emergency is lifted. Then, everyone can go back to their normal work.

2.5 Emergency stop

When you press the emergency stop, the screen will show a warning message and the LED status indicator will turn red.



- After the emergency stop button is activated, the EVSE cannot be used properly. Please contact the professional to fix the problem.
- Once the issue is addressed, reset the emergency stop by professionals.

3 Product overview

The product is a DC charging system that can be used to charge EVs indoors and outdoors.

3.1 Nameplate

The following picture shows the nameplate for the EVSE. The nameplate is located on the corresponding devices.

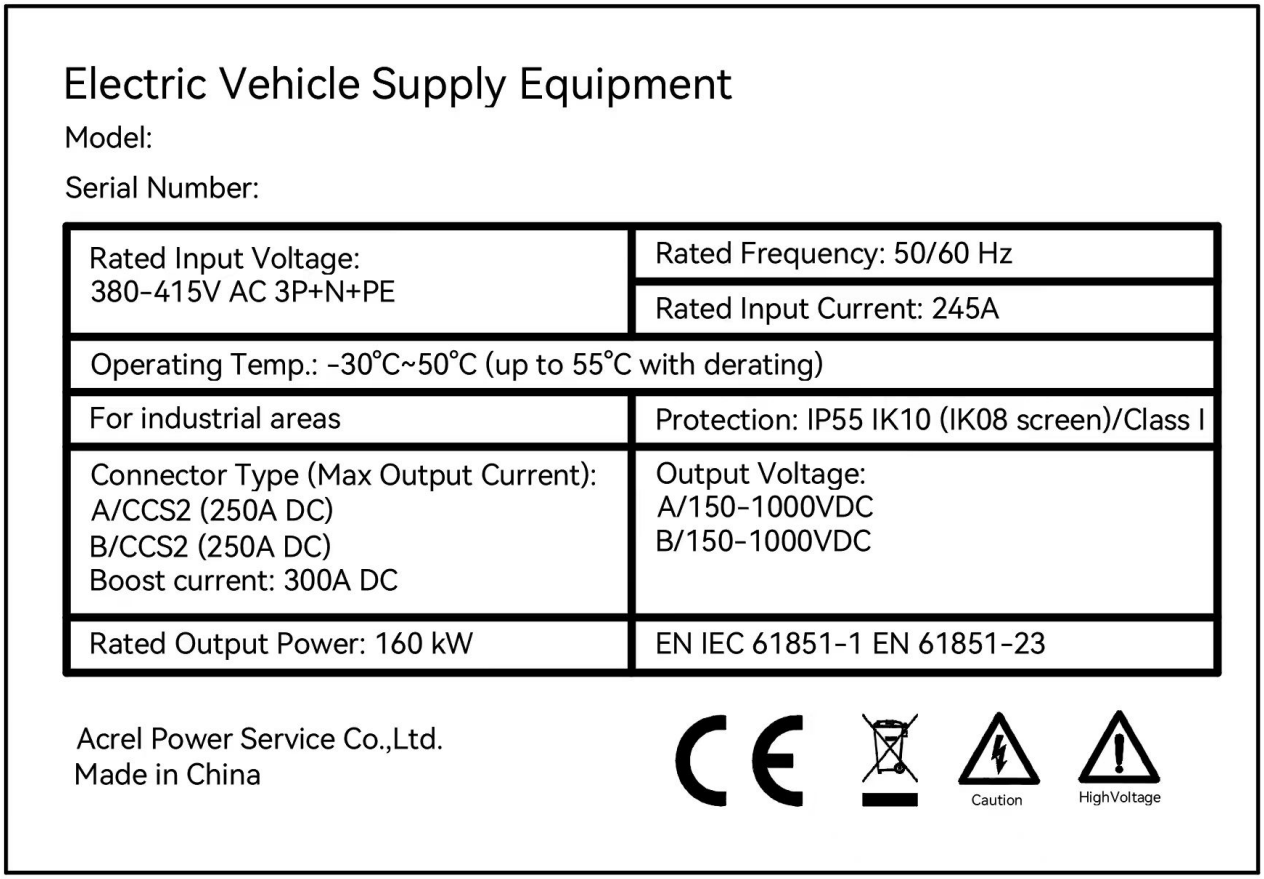


Figure 3-1 Nameplate

3.2 External view

The picture below is for reference only, please refer to the actual products.

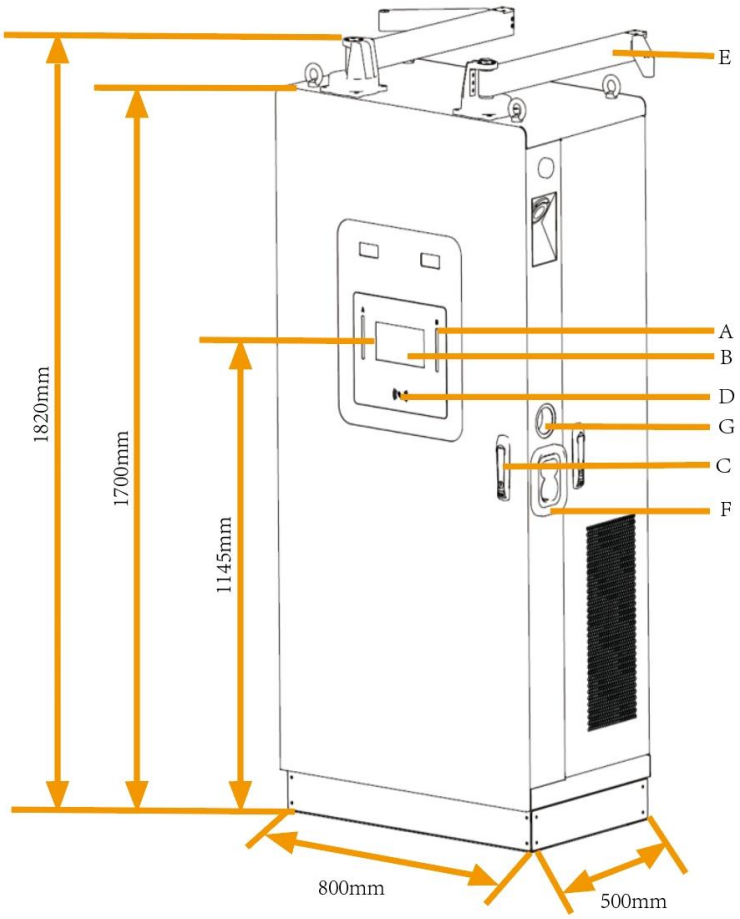


Figure 3-2 External view

A LED status indicator
B 7-inch touchscreen
C Door lock
D RFID reader
E Cable management system (CMS)
F Charging connector holder
G Emergency stop

Part	Name	Description
A	LED status indicator	To indicate the status of the power. When the EVSE is working normally, the indicator light is on, otherwise the light is off.
B	7-inch touch screen	To control and monitor the charging process.
C	Door lock	To open and lock the door of the EVSE.
D	RFID reader	To read the information from a RFID card to start or stop the charging process.
E	Cable management system(CMS)	To protect the charging cables from damage and ensure that they are properly stored.(Optional)
F	Charging connector holder	To safely store the charging connector when it is not in use.
G	Emergency stop	To immediately stop all operations and power supply to the EV in an emergency. (For more information, refer to Chapter 2.5)

Table 3-1 External component functions

3.3 Charging connector types

	Acrel can deliver the EVSE with CCS2 connectors on the charging cables. The maximum length of the charging cable outside this device is 8m.

Table 3-2 Charging connector

3.4 Status of the LED indicator

Lighting effects	Status	Meaning
	Steady green	Available
	Green flashing	RFID card detected
	Steady yellow	Warning, but can charge normally
	Steady blue	Charging
	Steady red	Fault

Table 3-3 Status of the LED indicator

4 Using instructions

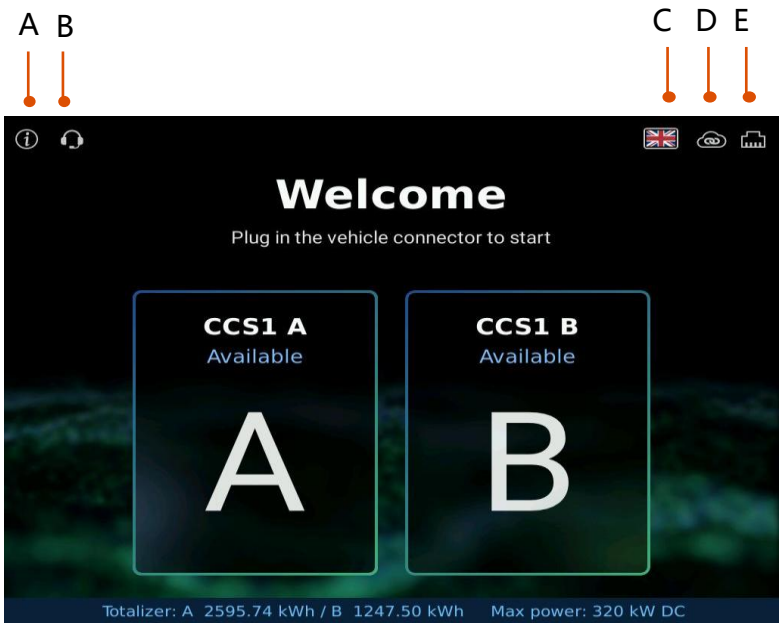
4.1 Prerequisites

Before starting, make sure you have the following ready:

- Make sure you know all the safety instructions in Chapter 2.
- Make sure the charging system is working properly.
- Make sure your EV is in good condition and can be charged.
- Park your EV in the designated area and make sure the charging cable is long enough.
- Turn off your EV.

4.2 UI exploration

The homepage of CHAdeMO is displayed below.



#	Symbol	Function
A		Display the EVSE CPID and software version number
B		Display service phone number and time
C		Select the LED display screen language (refer to Figure 4-1)
D		The EVSE connects to the OCPP platform.

E		The EVSE connects to the network via 4G.
		The EVSE connects to the network via Ethernet.

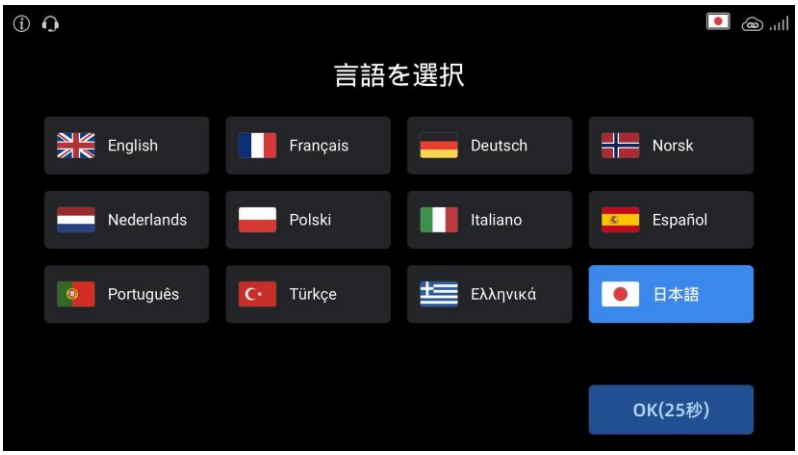


Figure 4-1 Language selection

4.3 Charging process

4.3.1 Charging mode

You can choose one of the following methods to start or stop charging.

(1) RFID card

- Please find the RFID card in the package of EVSE.

(2) QR code (or Designated App)

- Please download the charging App from the location provided by your dealer or service center.
- Please register and log into your account in the charging App. For detailed information, please contact your dealer or service center.

(3) Local Free charge (configurable)

- Plug in and charge.

4.3.2 Charging operation

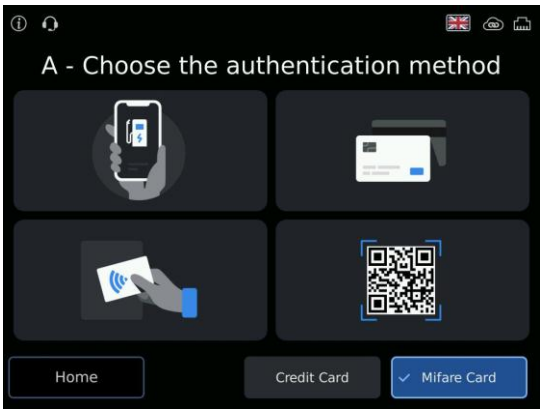
1 Pull out the charging connector from the EVSE.

2 Connect the charging connector to the EV.

3 The charging connector is correctly connected.

4 Authorize the charging process by the charging mode you choose.

- Swipe the RFID card.
- Open the charging APP to scan the QR code and tap Start Charging.
- Use a designated App to associate the EVSE.

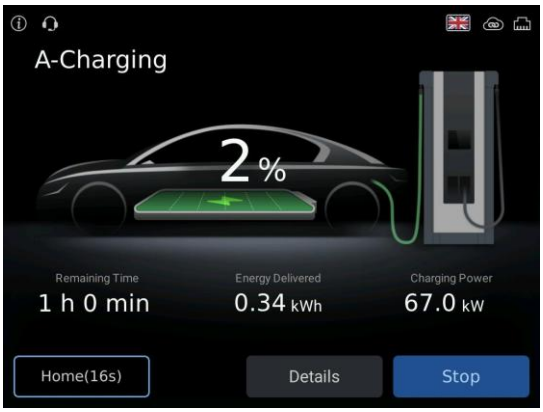


Note: After starting through the above authentication method, you will enter the authentication interface, and the LED indicator is steady blue.

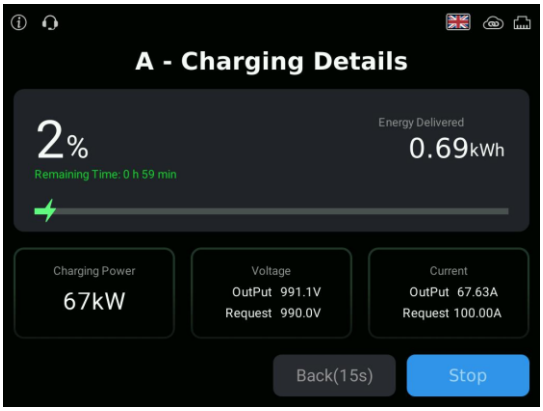


Note: The EVSE proceeds to charge your EV after successful authentication.

5 Click Details on the charging interface or access these details through the APP To see the charging details.



6 Click Back on the charging details interface to return to the charging interface.

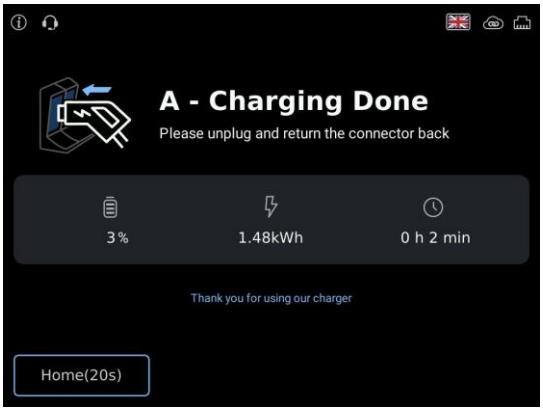


7 Choose one charging mode to stop the charging process.

- Swipe the RFID card
- Open the charging APP to tap Stop Charging
- Use a designated App to stop charging



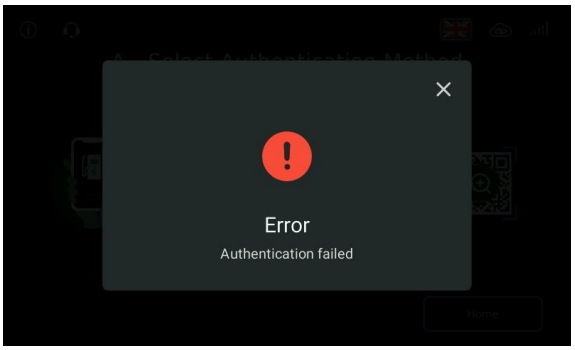
8 After waiting for the UI interface to jump to the
charging completion interface and the LED indicator turns to steady green.



9 Disconnect the charging connector from the EV and place the charging connector to the connector holder.

4.4 Error information

Follow the instructions below to tackle the problems.

Screen display	Corrective action
	Switch to another available EVSE. Note: Refer to Chapter 9.3.1 in the technical manual for more information.
	Switch to another available EVSE.
	Do the authentication again. Note: If the error persists after multiple authentication attempts, please contact the charger station operator.
	You can try charging again(refer to Chapter 4.3.2) or switch to another available EVSE. Note: Refer to Chapter 9.3.2 in the technical manual for more information.

Customer service

Preparation:
If you have any questions or problems, please contact the company responsible for performing the electrical installation.

Before contacting Customer Service:
Check the Error information section in the manual.

