

MaxiCharger AC Ultra

User Manual (EU)

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! IMPORTANT

Before operating or maintaining this unit, please read this manual carefully, paying extra attention to the safety warnings and precautions.

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1 Using This Manual

This manual describes the installation and use of the MaxiCharger AC Ultra. Prior to installation, read through this manual to be familiarized with the instructions of this MaxiCharger to ensure a successful installation and smooth operations.

1.1 Conventions

The following conventions are used.

1.1.1 Bold Text

Bold text is used to highlight selectable items such as buttons and menu options.

1.1.2 Notes and Important Messages

Notes

A **NOTE** provides helpful information such as additional explanations, tips, and comments.

Important

IMPORTANT indicates a situation which, if not avoided, may result in damage to the test equipment or vehicle.

1.1.3 Hyperlink

Hyperlinks or links that take you to other related articles, procedures, and illustrations are available in electronic documents.

1.1.4 Illustrations

Illustrations used in this manual are only examples; the actual product(s) or screens may vary.

1.1.5 Revision History

Version	Date	Descriptions
V1		Initial version

2 Safety

For your own safety and the safety of others, and to prevent damage to the charging station and vehicles upon which it is used, it is important that the safety instructions presented throughout this manual be read and understood by all persons operating or coming into contact with the charging station.

2.1 Safety Messages

Safety messages are provided to help prevent personal injury and equipment damage. All safety messages are introduced by a single word indicating the hazard level.

DANGER

Indicates an imminently hazardous situation with a high risk level which, if the danger is not avoided, will cause death or serious injury.

WARNING

Indicates a potentially hazardous situation with moderate risk level which, if the warning is not obeyed, can cause death or serious injury.

CAUTION

Indicates a potentially hazardous situation with a medium risk level which, if the caution is not obeyed, may cause minor or moderate injury or damage to the equipment.

2.2 Safety Instructions

The safety messages herein cover situations Autel is aware of. Autel cannot know, evaluate or advise you as to all of the possible hazards. You must be certain that any condition or service procedure encountered does not jeopardize your personal safety.

SAFETY WARNINGS

- Read and follow all warnings and instructions before installing and operating the MaxiCharger.
- Only a qualified electrician is allowed to install, service, repair and relocate the MaxiCharger.
- The user must not attempt to service or repair the MaxiCharger as it does not contain user-serviceable parts.
- Switch off input power before installing the MaxiCharger. Keep the power off until it is fully installed and secure.
- Do not use explosive or readily flammable substances near the MaxiCharger.
- Do not use the MaxiCharger if the charging cable is frayed, broken or otherwise damaged, or fails to operate.
- Do not use the MaxiCharger if the enclosure or the EV connector is frayed, broken or otherwise damaged, or fails to operate.
- In the event of danger and/or an accident, a qualified electrician must immediately disconnect the electrical supply from the MaxiCharger.

- Refer to the vehicle user manual to check if the vehicle releases hazardous or explosive gases when charging.
- Follow the instructions given in the vehicle user manual before choosing the charging location of the MaxiCharger.
- Do not direct powerful water jets toward the MaxiCharger.
- Do not operate the MaxiCharger with wet hands.
- Do not put the charging handle into any liquid.
- Do not install or open the MaxiCharger in wet environment (such as rain or heavy fog).
- Ensure that the charging cable is positioned so that it will not be stepped on, tripped over, driven over or otherwise subjected to excessive force or damage. Where applicable, ensure that the charging cable is correctly stowed when not in use and that the charging handle does not touch the ground.
- Keep the charging handle away from heat sources, dirt or water.
- Use this MaxiCharger to charge compatible electric vehicles only. Refer to the technical specifications in this manual. Refer to the vehicle manual to check if the vehicle is compatible.
- Only use the MaxiCharger under the specified operating conditions in this manual.
- Local regulations may be applicable and may vary depending on your region/country of use. The qualified electrician must always ensure that the MaxiCharger is installed in accordance with the local regulations.

 **CAUTION**

- Ensure that the charging cable is not damaged or tangled prior to use.
- Do not insert fingers into the charging port.
- Do not leave objects inside the charging port.
- Keep and use (electro) magnetic devices at a safe distance from the MaxiCharger.

2.3 Disposal Instructions

Handling waste incorrectly can have a negative effect on the environment and human health due to potential hazardous substances. Discard the charging station correctly can facilitate the reuse and recycling the materials and environmental protection.

- Obey the local rules when discarding parts, packaging materials or the charging station.
- Discard electrical and electronic equipment separately in compliance with the WEEE-2012/19/EU Directive on waste of electrical and electronic equipment.
- Do not mix or dispose the charging station with the household waste.

3 General Introduction

This MaxiCharger AC Ultra is designed to charge an electric vehicle (hereinafter called “EV”). Tailored for commercial use, it features fast and efficient charging experience while offering best-value design and smart charging.

This manual will instruct you on how to install and use this charging station.

Intended Use

The MaxiCharger AC Ultra is intended for the AC charging of EVs. It is intended for both indoor and outdoor use.

DANGER

- If you use the charging station in any way other than described in this manual or other related documents, possible death, injury and damage to property can occur.
- Use the charging station only as intended.

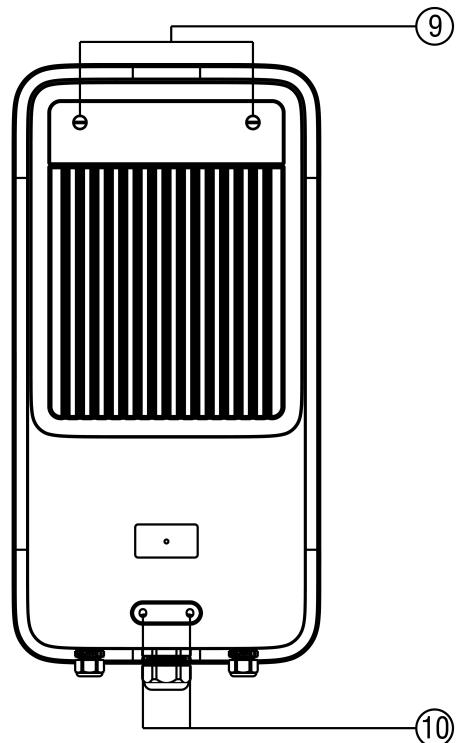
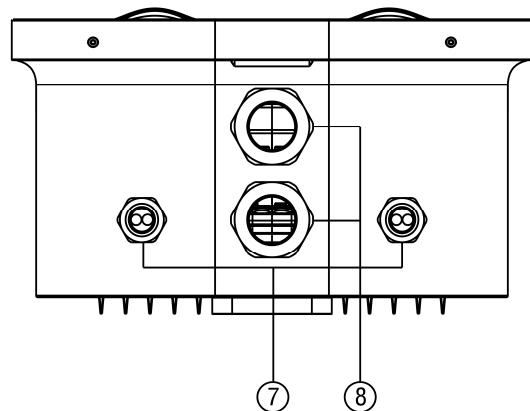
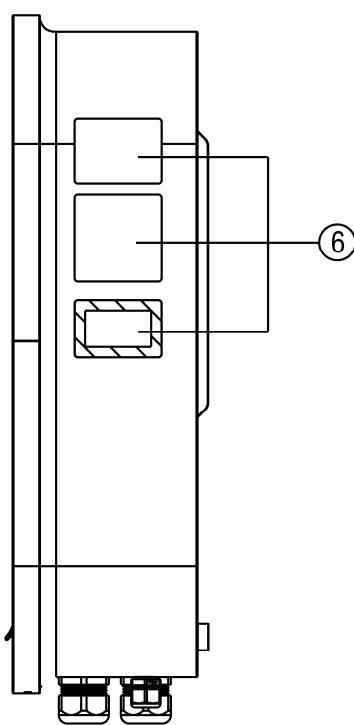
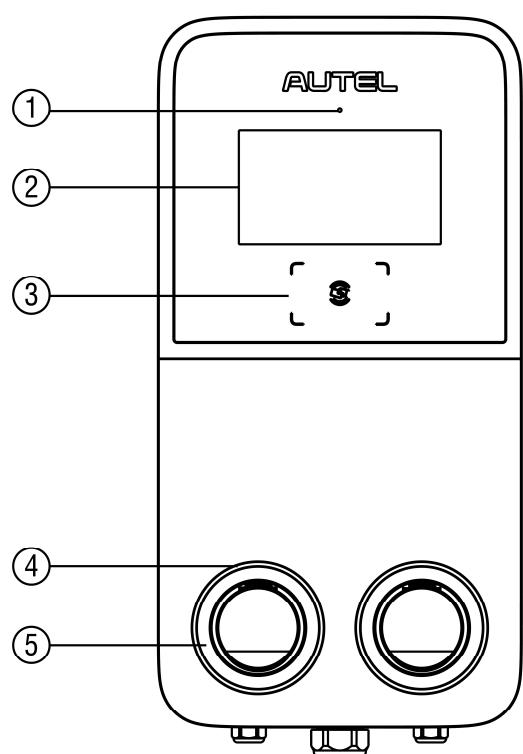
NOTE

The images and illustrations depicted in this manual may differ slightly from the actual ones.

3.1 Product Overview

MaxiCharger AC Ultra

1. Ambient Light Sensor — detects ambient brightness
2. Display
3. RFID Reader
4. Status LED (Refer to [8.2 LED Descriptions](#) for details)
5. Socket
6. Product Label
7. Ethernet Cable Port
8. AC Inlet Hole
9. Upper Mounting Screw
10. Mounting Hole



3.2 In the Box

Charging Station 1 PC		Wall Dock 1 PC	
Screw (M6 x 50) 5 PCS		RFID Card 2 PCS	
Quick Reference Guide 1 PC		Wall Anchor 5 PCS	
Packing List 1 PC			

Tool Kit

Drilling Template 1 PC		Socket Wrench 1 PC	
T10 Screwdriver 1 PC			

3.3 Installation Tools (Not Included)

Ensure the following tools are readily available prior to installation.

- Tape measure
- Spirit level
- Pencil
- 8 mm drilling bit
- Drill
- Wire stripper
- Crimping tool
- Phillips screwdriver

4 Installation

4.1 Prepare for Installation

4.1.1 Choose Location

- Install the charging station on a flat and vertical surface capable of supporting its weight (e.g. a finished brick or concrete wall, a pedestal, etc.).
- Install the charging station in a location that allows the charging cable to remain within its bending tolerance.
- The recommended installation height is 450 mm above the surface.
- Position the charging station in a location where it is not vulnerable to being damaged.

4.1.2 Checklist

- The local installation regulations are identified and followed.
- All necessary permits are obtained from the local authority that has jurisdiction.
- The existing electrical load has been calculated to find the maximum operating current for the charging station installation.
- A miniature circuit breaker (MCB) and residual current device (RCD) are installed upstream and have ratings that correspond to the local power supply and required charging power.
- The correct cables are available at the installation site, and there is sufficient cable length to strip and connect the wires.
- The recommended installation tools are available at the site. Refer to [3.3 Installation Tools \(Not Included\)](#).

4.1.3 Electrical Design

DANGER

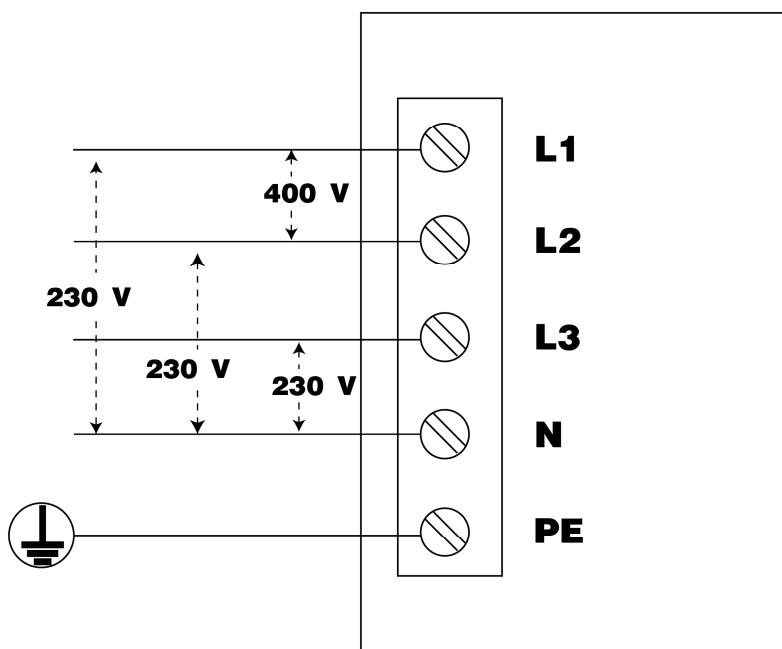
Connecting the MaxiCharger to the power supply other than specified in this section can cause incorrect installation and the risk of electric shock, as well as damage to the charging station, and injury or death.

Earthing System	TN-system	PE cable
	● TT-system ● IT-system	Earth electrode installed separately (self-installed)
Power Input	Three-phase	400 V AC ± 15%, 50 Hz
MCB (Miniature Circuit Breaker)	The power supply MCB must match the power rating of the charging station.	

Observe the descriptions below for power supply connection of the charging station, depending on the specifications of the power supply cabinet.

400 V AC, Three-phase with Neutral

For three-phase using a Wye-connected secondary, all three phases (L1, L2, and L3) and neutral must be connected. Each phase voltage must measure 230 V to neutral.



4.2 Unpack

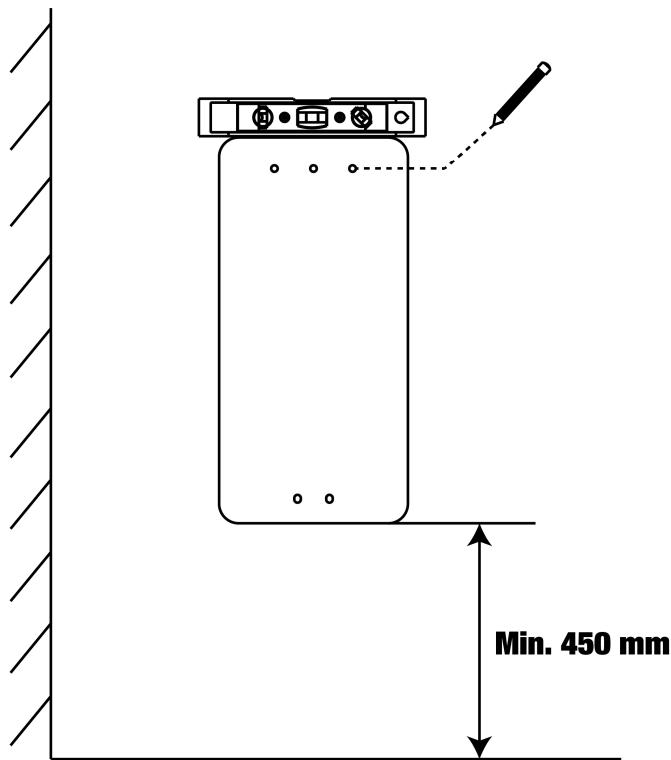
1. Open the package.
2. Remove the charging station from the box.
3. Remove all packaging material from the charging station.
4. Discard the packaging material.
5. Ensure that all parts are delivered according to the order. Refer to [3.2 In the Box](#).
6. Do a visual inspection of the charging station and the parts for damage. In case any damage is found or the parts are not consistent with your order, contact the delivery and Autel support.

4.3 Install the Charging Station

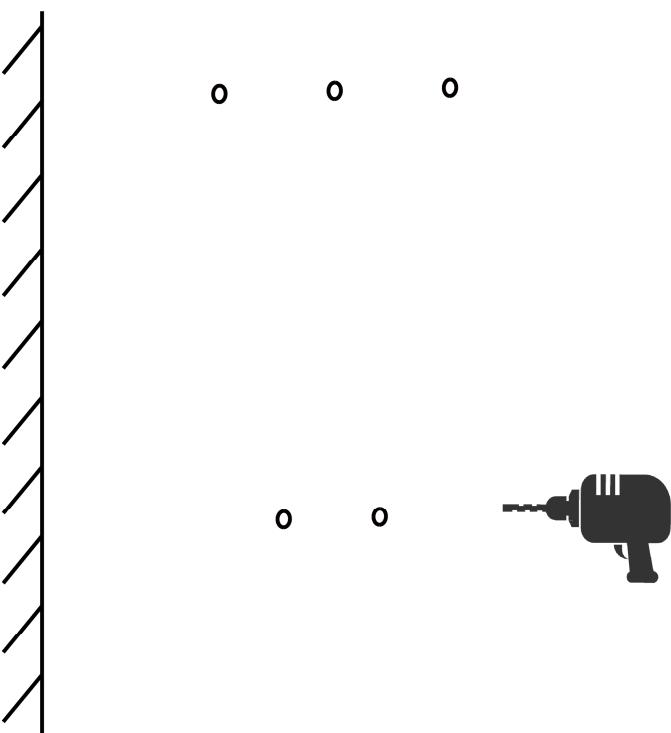
4.3.1 Mount the Charging Station

STEP 1

1. Place the drilling template against the wall, minimum 450 mm above the surface. Then level it using a spirit level.
2. Mark the five mounting holes with a pencil and remove the template.

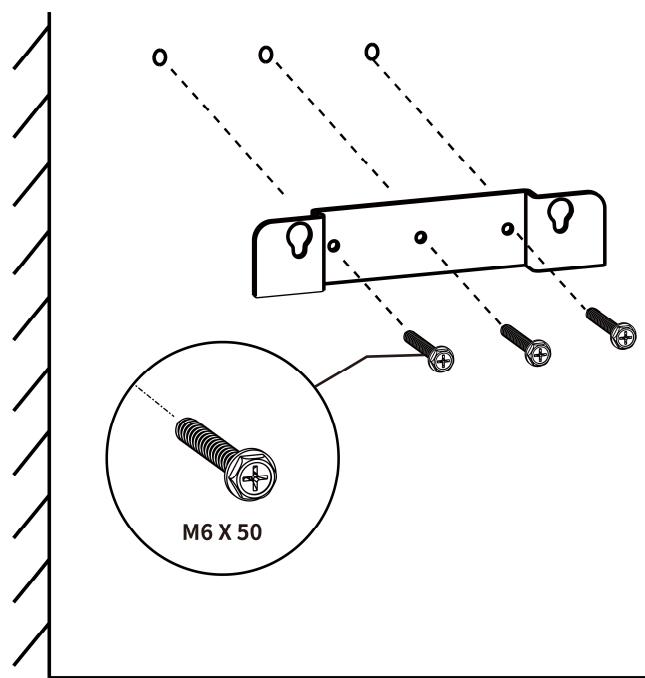


3. Drill five 8 mm holes to a depth of 50 mm.



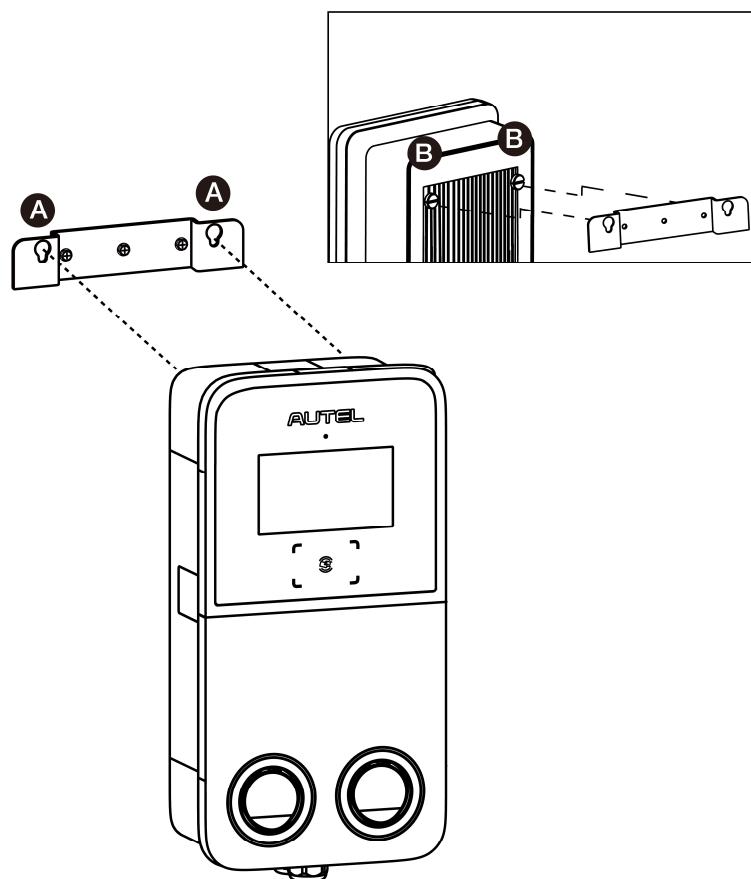
STEP 2

1. Insert five 8 mm wall anchors into the holes.
2. Place the wall dock on the wall, aligning with the three upper holes. Level it with a spirit level. Then insert three M6 x 50 screws into the holes. Tighten the screws to 5-7 N·m using the socket wrench.

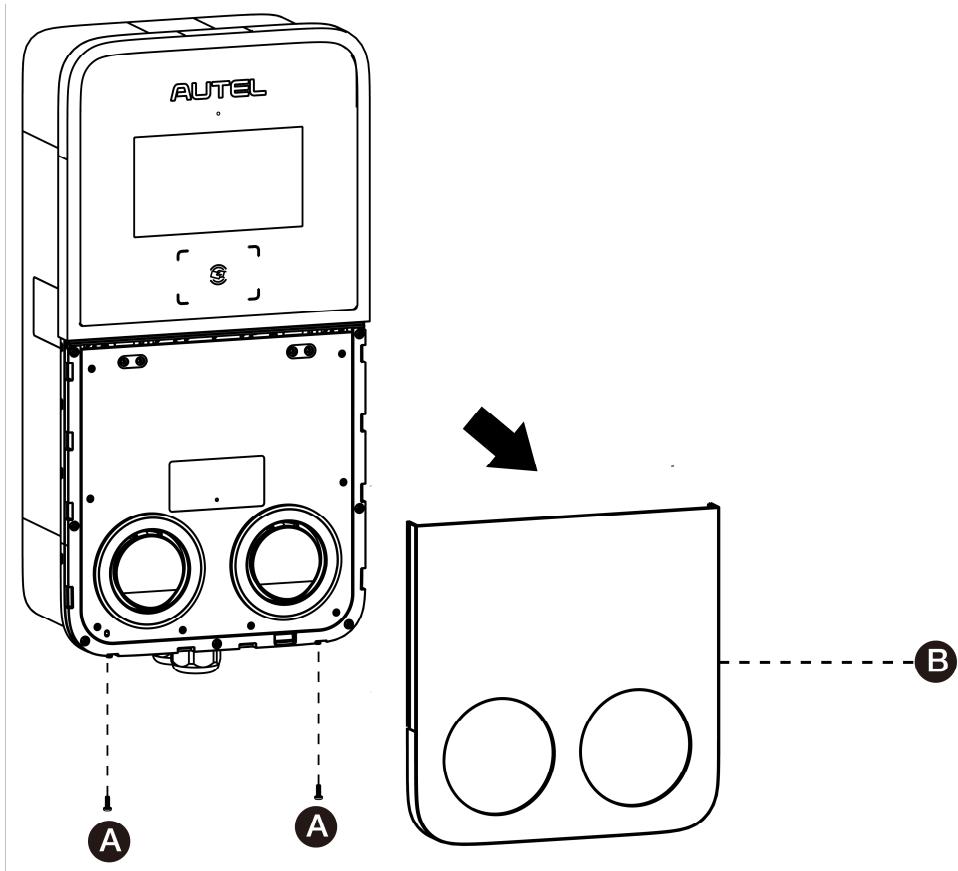


STEP 3

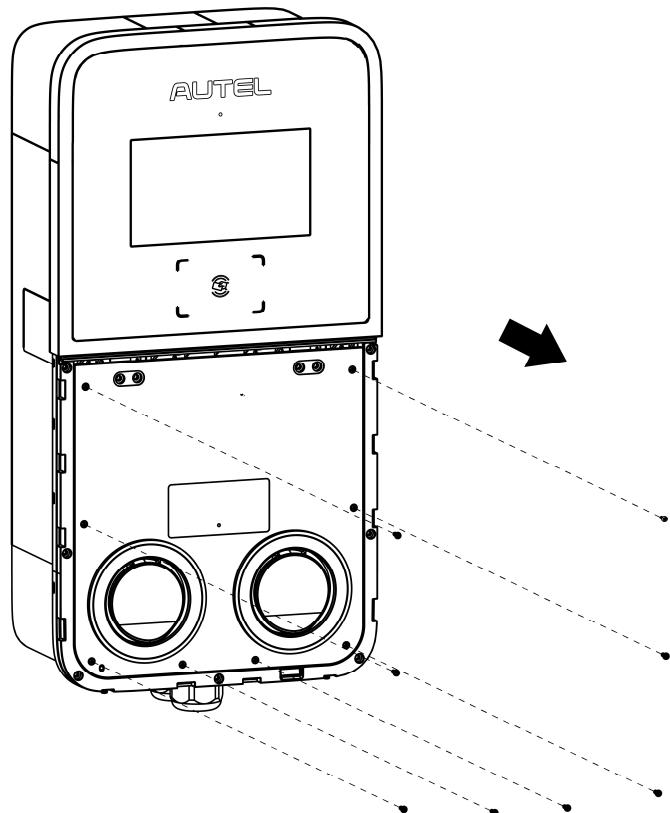
1. Attach the charging station onto the wall dock by inserting the two mounting screws (B) on the back of the charging station into the two upper mounting holes (A). Slide the charging station downwards to engage the screws.



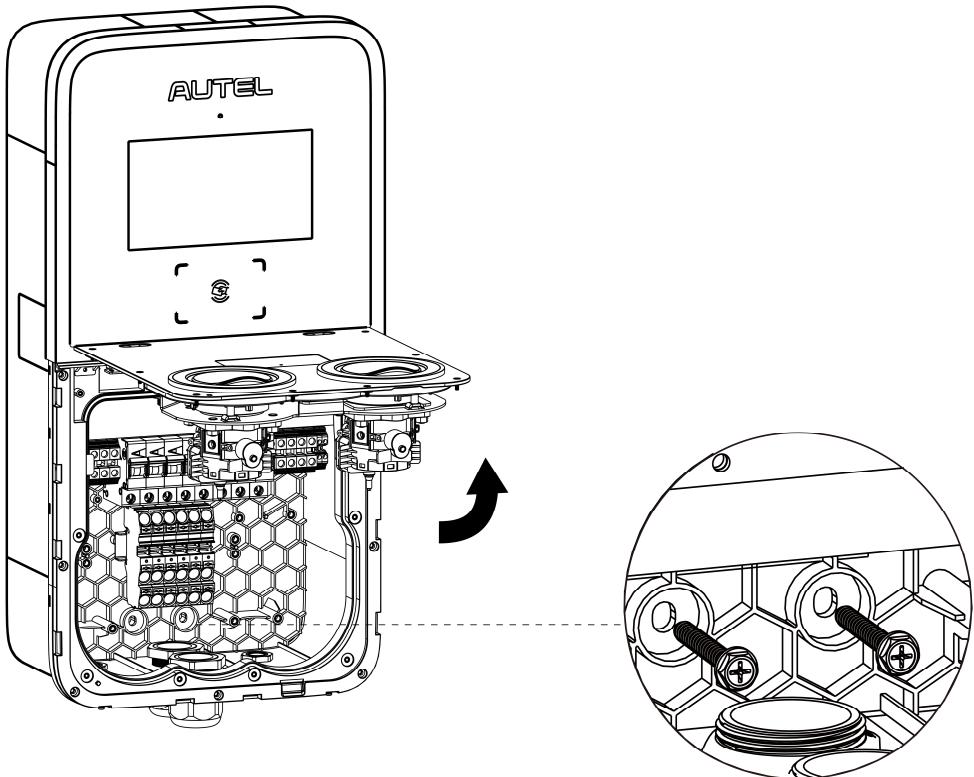
2. Loosen the two M3 x 8 screws (**A**) at the bottom of the charging station using the T10 screwdriver and remove the faceplate (**B**). **Set them aside.**



3. Remove the eight M3 x 8 screws using the T10 screwdriver. **Set them aside.**



- Flip the maintenance cover up. Then insert two M6 x 50 screws into the two lower holes. Tighten the screws to 5-7 N·m using the socket wrench to secure the charging station.

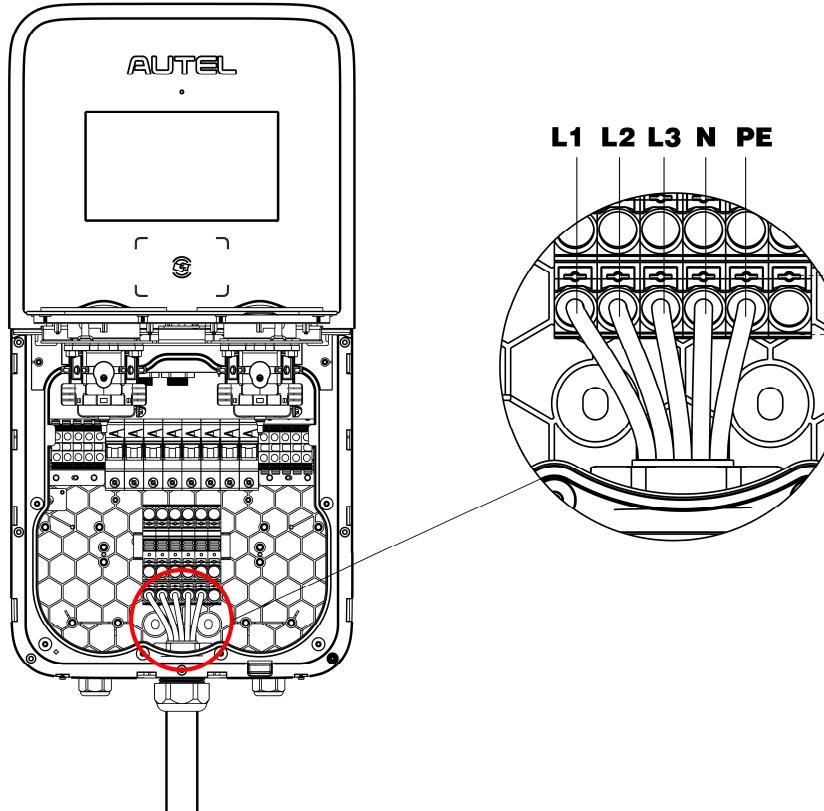


4.3.2 Power Supply Wiring

NOTE

Use minimum 10 mm² and maximum 16 mm² copper wire. Choose based on the power supply available and the distance from the distribution box.

- Loosen the cable gland at the bottom of the charging station and feed the AC input cable through it.
- Cut and strip the wires to the required length.
- Use a proper tool to press the position (A) above the hole on the terminal block (B).
- Insert the exposed wires into the corresponding holes as described below:
 - L1 (Brown)
 - L2 (Black)
 - L3 (Grey)
 - Neutral (N, blue)
 - Earth (PE, green/yellow striped)
- Fix the cable gland.

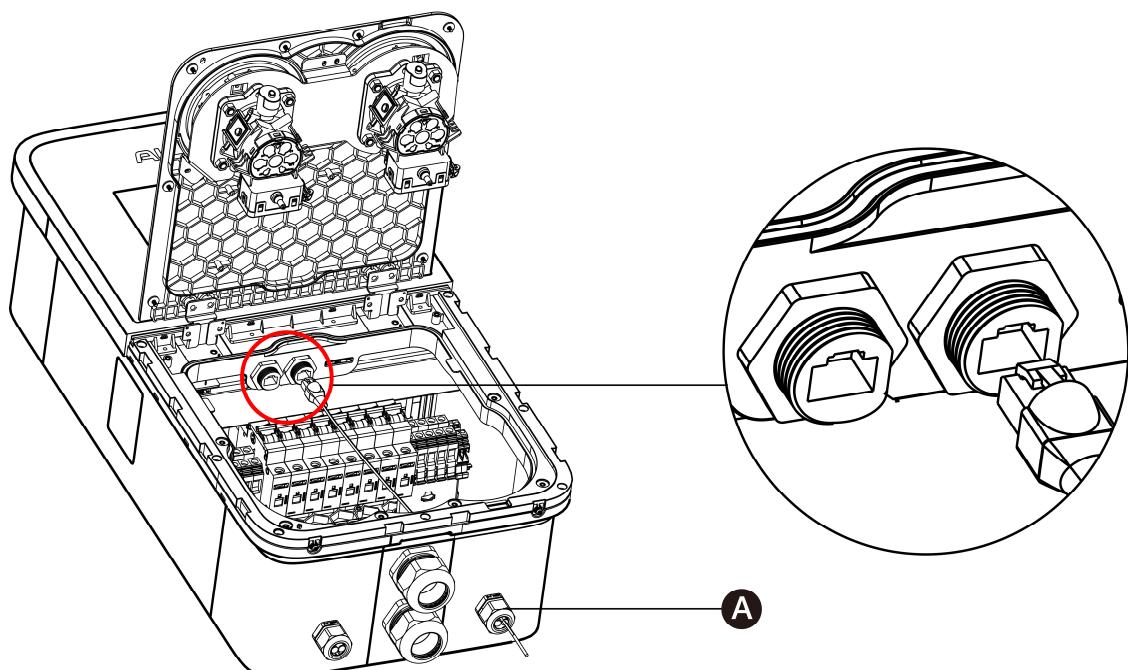


4.3.3 Internet Connection

The MaxiCharger AC Ultra can access the Internet via Ethernet cable, cellular network or Wi-Fi.

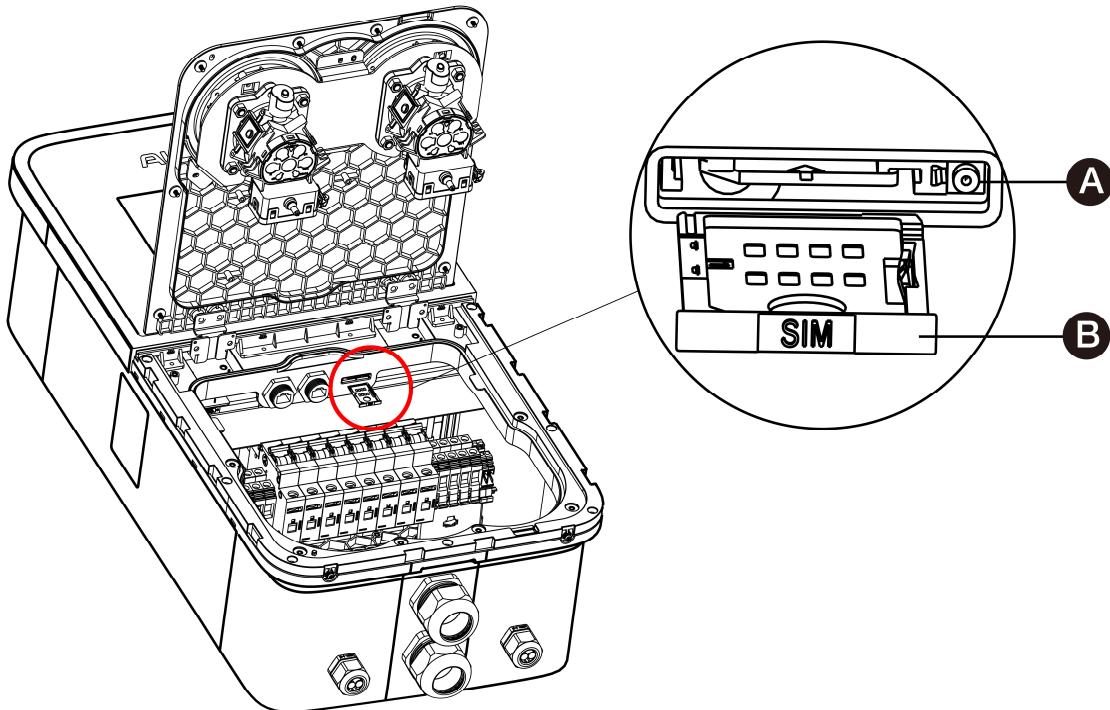
4.3.3.1 Via the Ethernet Cable

1. Insert the Ethernet cable with the RJ45 plug through either of the bottom Ethernet cable port (**A**).
2. Plug the Ethernet cable into either of the RJ45 port as shown.



4.3.3.2 Via Cellular Network

1. Eject the SIM card tray (B) by pressing the tiny button (A) next to it.
2. Place the SIM card into the tray. Ensure it is inserted correctly.
3. Push the card tray back in place.



4.3.3.3 Via Wi-Fi

To connect the MaxiCharger to the Internet via Wi-Fi, please refer to [5.1 Initial Setups](#).

4.4 Complete Installation

1. Ensure that all installation and wiring are secured and correct. Then flip the maintenance cover down. Reinstall and tighten the eight M3 x 8 screws.
2. Reinstall the faceplate and the two M3 x 8 screws. Tighten them accordingly. The installation is now complete.

4.5 Energize the Charging Station

- Ensure all electrical connections are clean, tight, and free of wire strands and metal shavings.
- Turn on the circuit breaker.
- Wipe all surfaces with a soft cloth dampened with warm water.

The charging station is now ready for commissioning.

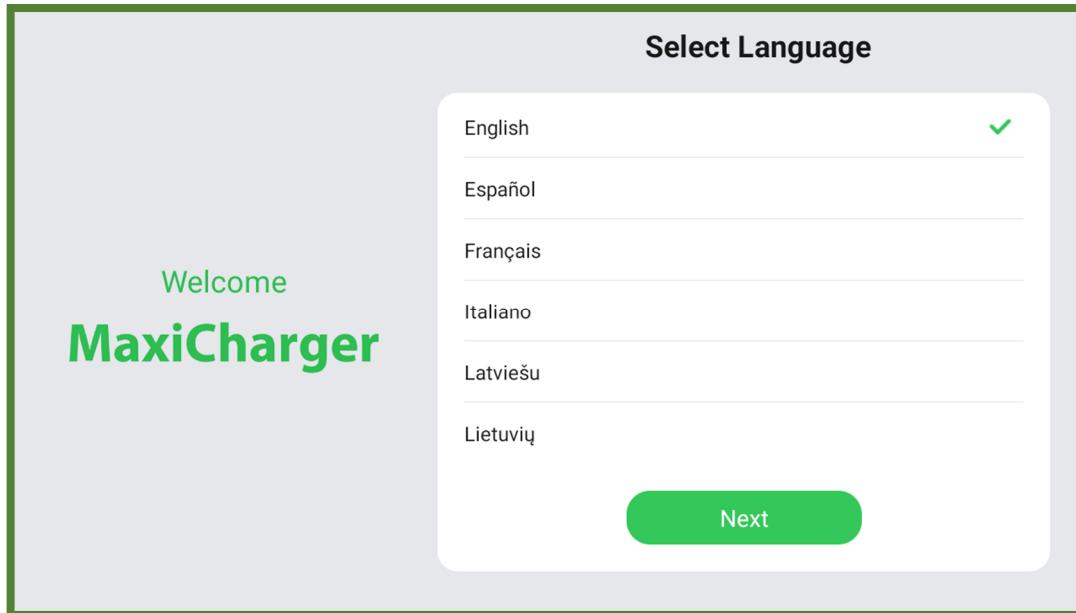
5 Settings

5.1 Initial Setups

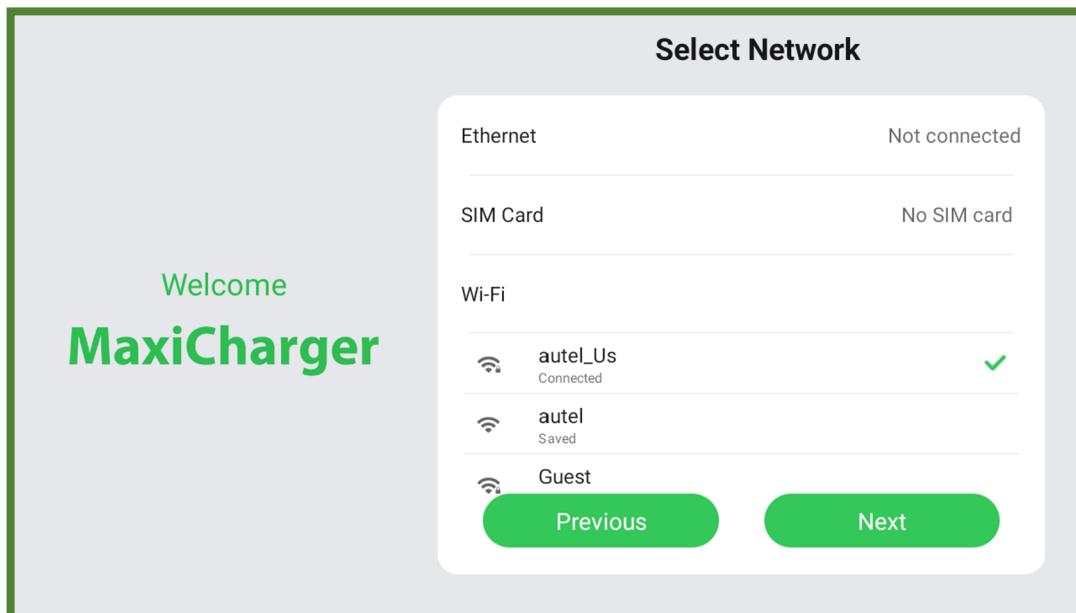
When the MaxiCharger is powered on for the first time, it is required to complete the initial setups by the installation engineer.

Follow the instructions below:

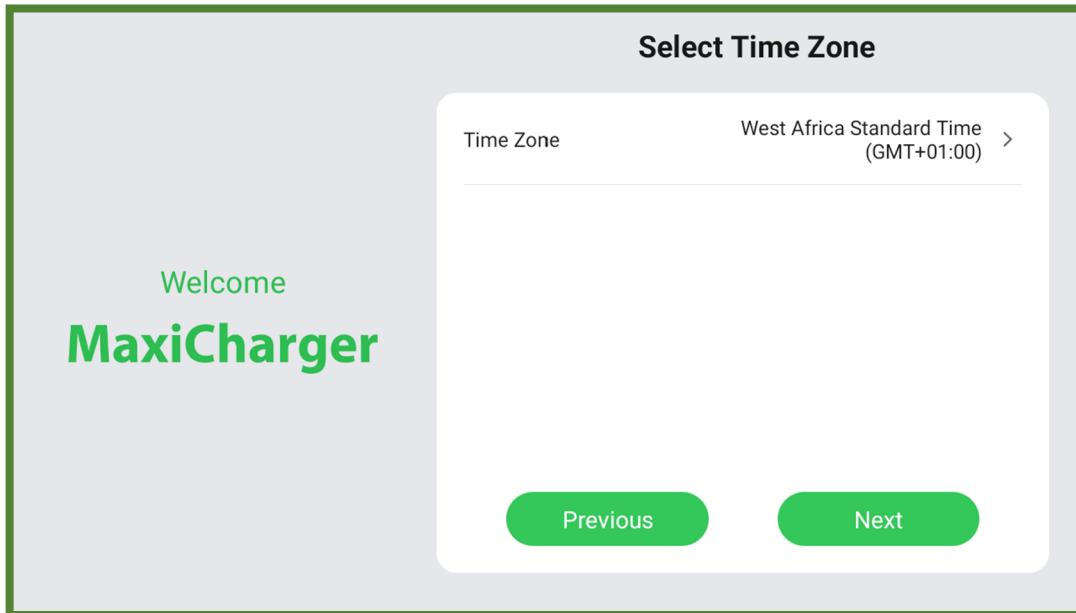
1. Select the language. Tap **Next** to continue.



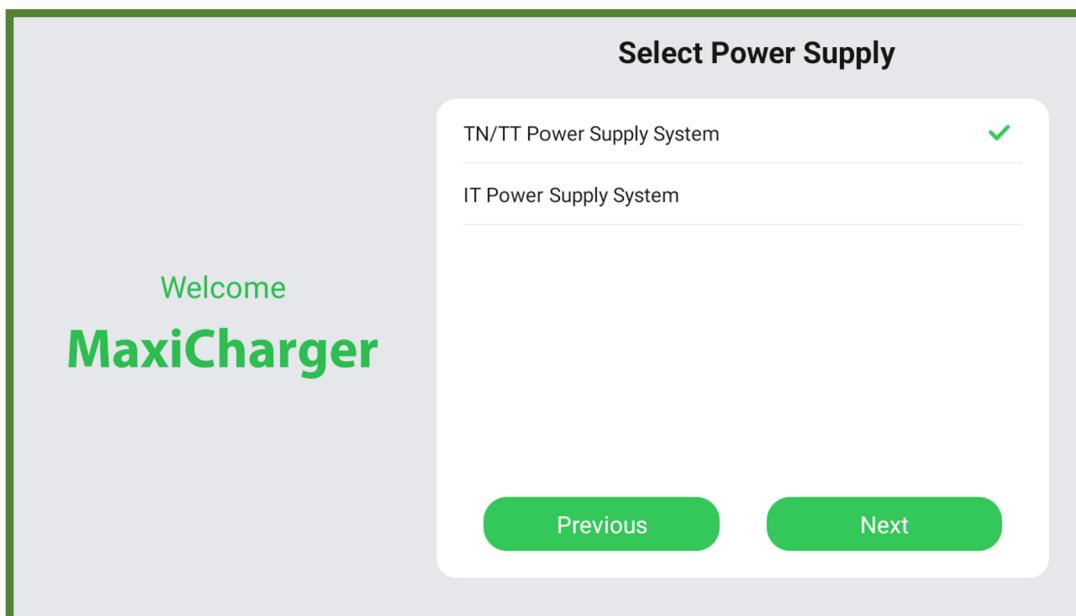
2. Select a local network and enter the Wi-Fi password. If the MaxiCharger has been connected to the Internet via SIM card or Ethernet cable, skip this step. Tap **Next** to continue or **Previous** to return to the last page.



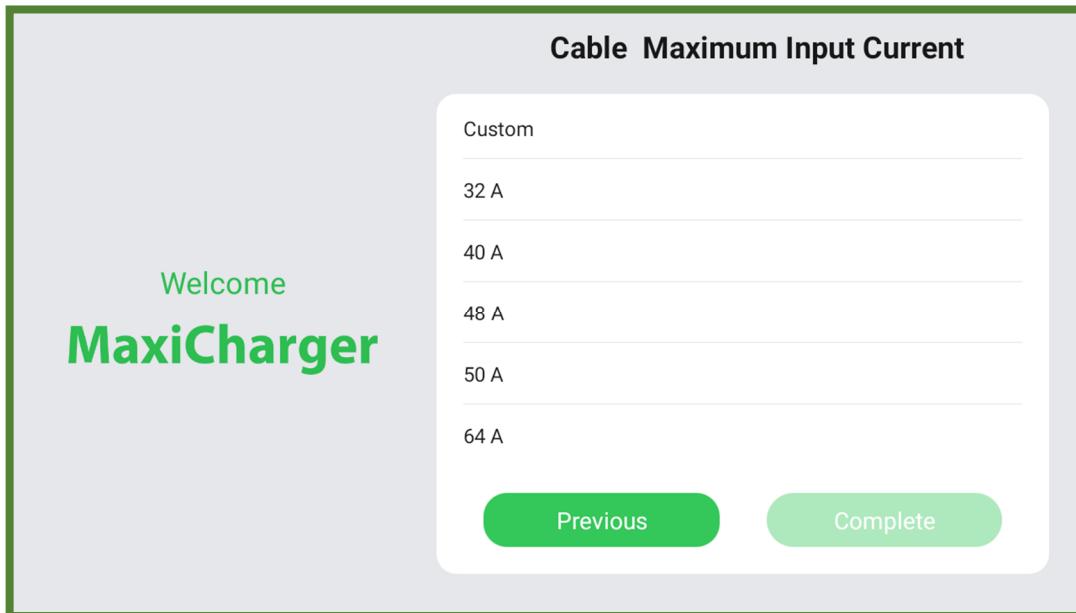
3. Select the time zone. Tap **Next** to continue or **Previous** to return to the last page.



4. Select the proper power supply system. This MaxiCharger supports both TN/TT and IT systems. Tap **Next** to continue or **Previous** to return to the last page.



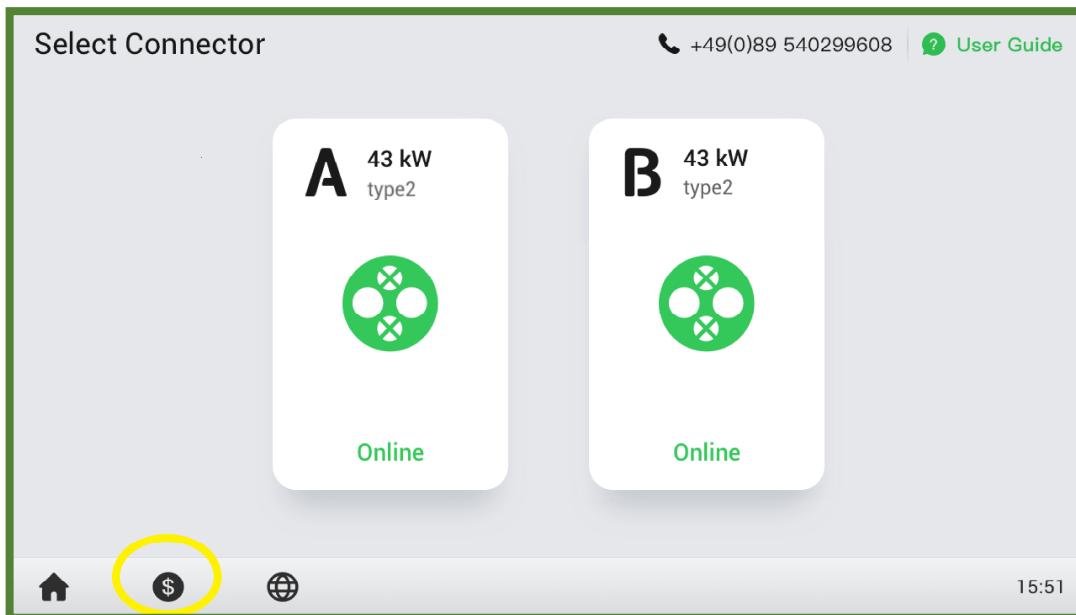
5. Select the maximum input current based on the ratings of the MaxiCharger and local grid capacity. Tap **Complete** to finish the initial setups or **Previous** to return to the last page.



5.2 Change the Default Settings

Usually, the MaxiCharger has been set up before shipment, so there is no need for further setups other than described above. To change the default settings:

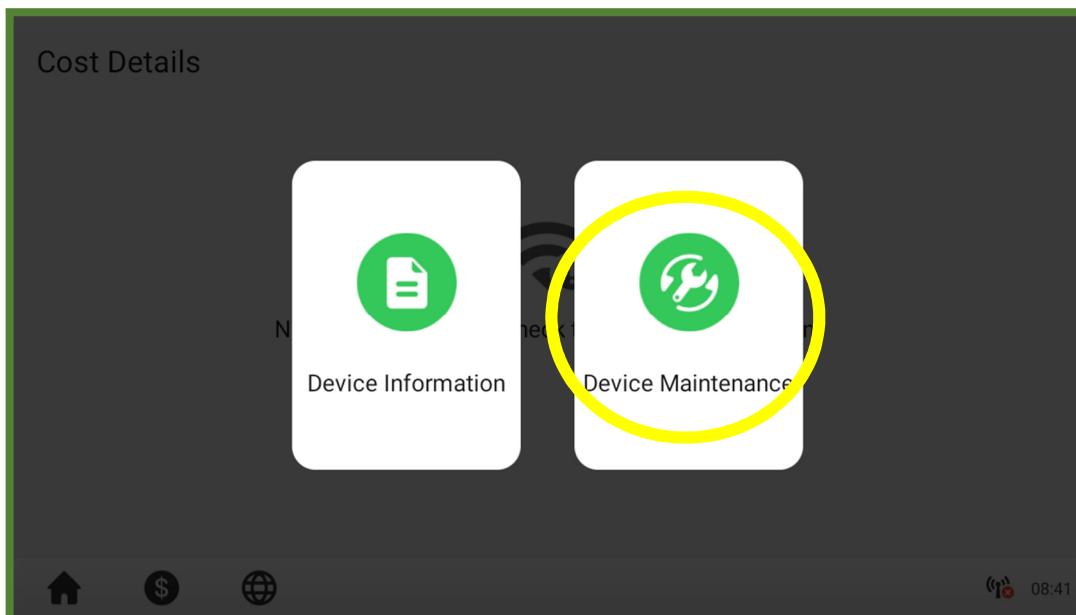
1. On the Standby Screen, tap the “currency (\$)” icon on the lower-left corner to enter the Cost Details Screen.



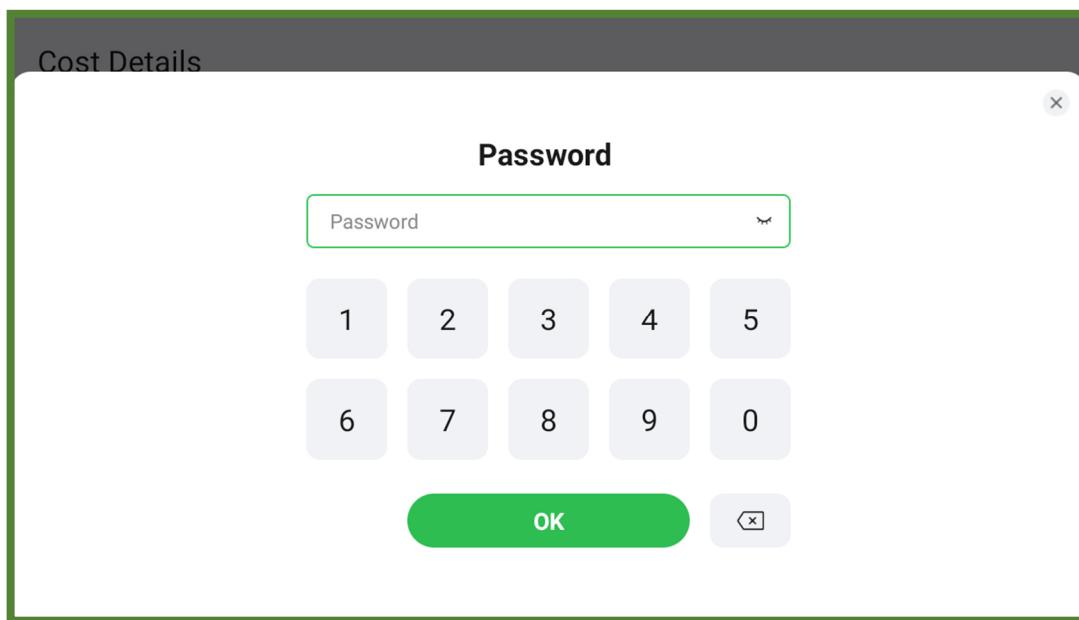
2. On the Cost Details Screen, tap the upper-left corner to enter the next page.



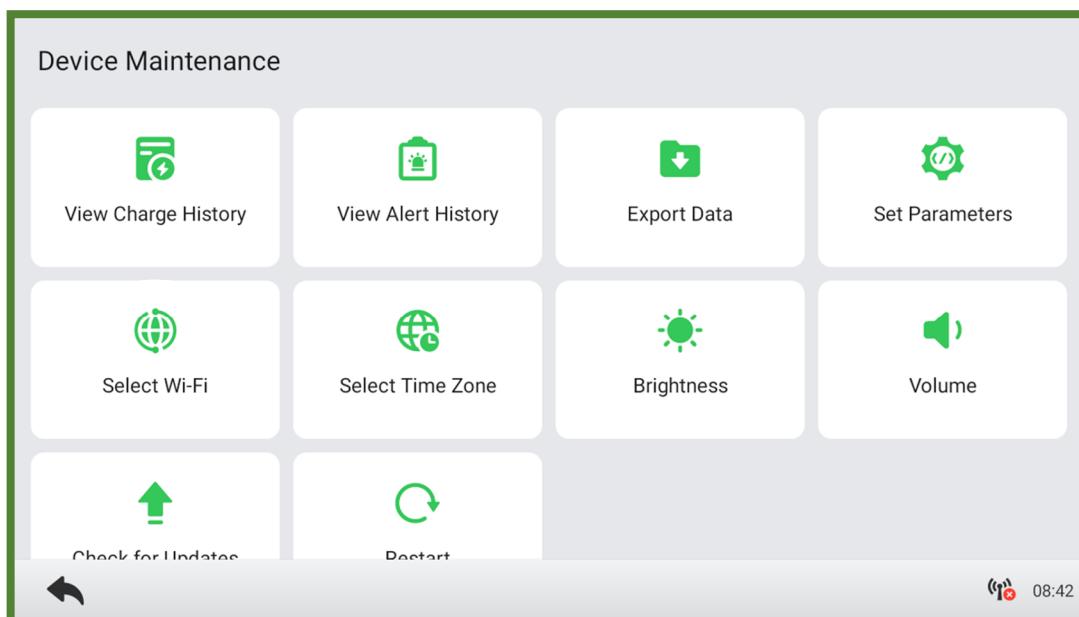
3. Select **Device Maintenance** on the screen.



4. A password prompt will appear. Enter **1234** to continue.



5. On the Device Maintenance Screen, choose a setting to adjust.



6 Operation

6.1 Charging Operations

Before beginning a charge session, scan the QR code below to download the Autel Charge app to a mobile device from the Google Play or App Store. Then register an account. You are now ready to use the app to charge the vehicle.



6.1.1 Start Charging

1. Insert the charging handle into the charging port on the EV and the charger socket outlet.
2. Choose from the following ways to start a charge session:
 - Tap the RFID card on the RFID reader.
 - Use the Autel Charge app by tapping **Start** on the Charge screen.
 - If a charging schedule is set in the Autel Charge app, the charger will initiate a charge session automatically as scheduled. (Scheduled charging case.)
 - If the Plug-and-charge function is enabled in the Autel Charge app, the charger will automatically start charging once the charging handle is properly connected. (Plug-and-charge case.)

NOTE

Ensure the EV is charging. The status LED on the charger should be breathing green. If you suspect the vehicle is not charging properly, try reconnecting the charging cable or contact Autel Support.

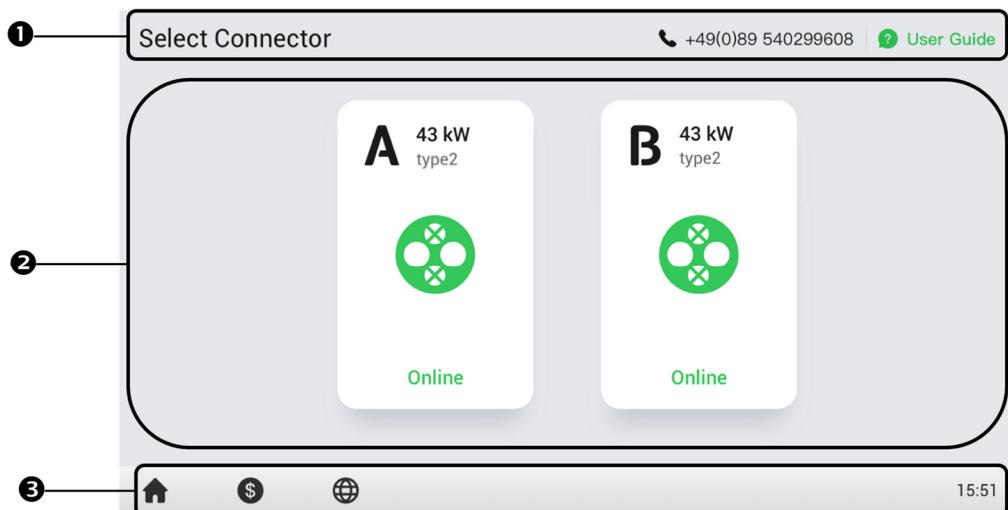
6.1.2 Stop Charging

NOTE

- If the EV charging cable is unplugged during the charge session, the charging station automatically disconnects the power supply. This stops all charging operations.
 - When the vehicle is fully charged, the charging station will automatically disconnect the power supply.
1. To stop charging, choose either of the following two ways:
 - Wait for the charge session to end and no further actions are required in the case of scheduled charging or plug-and-charge.
 - The status LED will flash green.
 - The Autel Charge app displays that the EV is fully charged.
 - The display will show that the EV is fully charged.
 - End the charge session by tapping the RFID card on the RFID reader again or via the Autel Charge app by tapping **Stop** on the Charge screen.
 2. Remove the charging handle from the charger socket outlet and the EV charging port.

6.2 Display Descriptions

6.2.1 Standby Screen

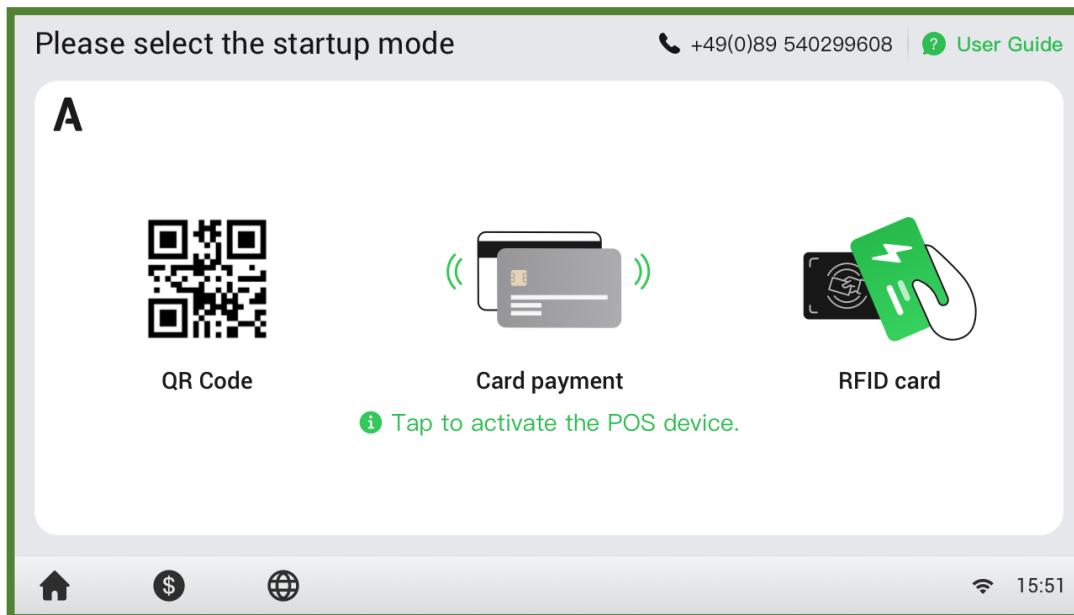


1. Top screen — displays customer support info and a **User Guide** button (tap to view charging instructions)
2. Middle screen — tap to select a connector
3. Bottom screen — tap to return to the Home page, view the charging costs, and adjust the language

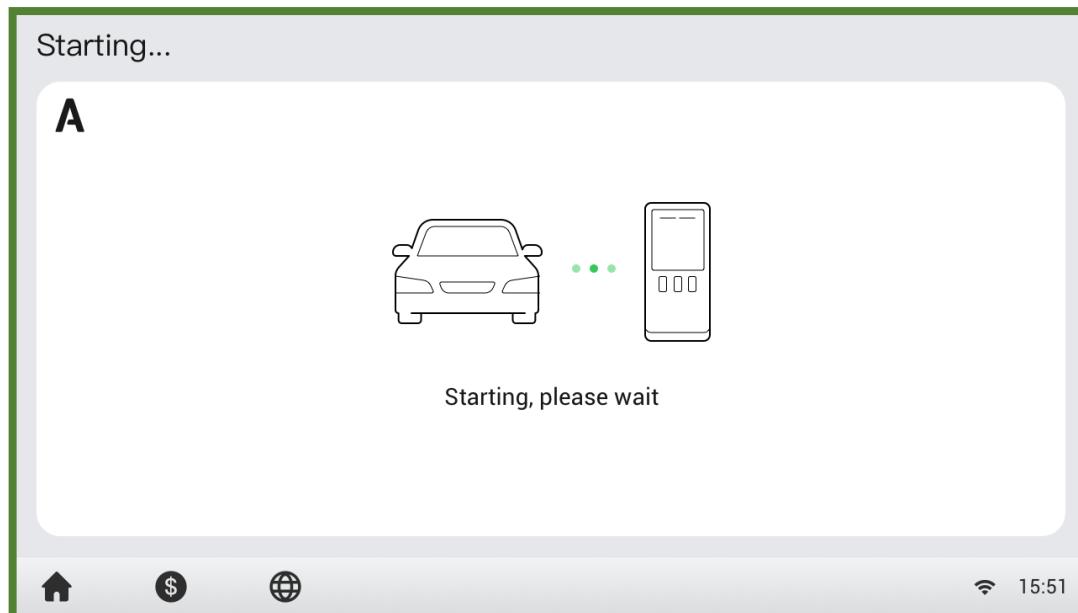
The display shows the Standby Screen when the charging station is in idle status, indicating that the charging station is ready for use. When this screen appears, choose connector A or B to enter the Authorization Screen.

6.2.2 Authorization Screen

Choose an authorization method to start a charge session — QR code, RFID card or credit card (optional).



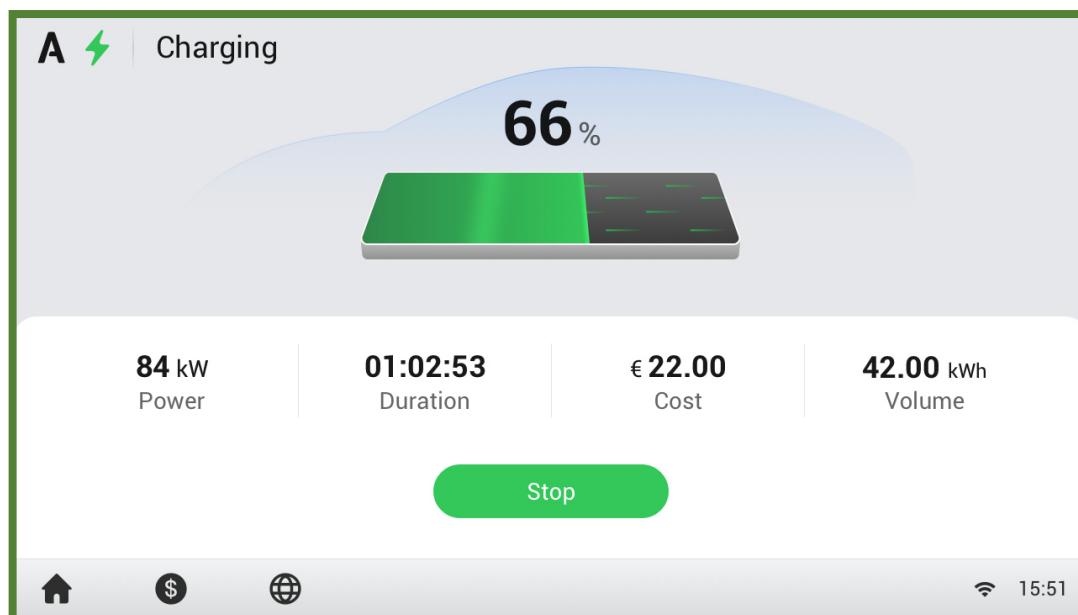
6.2.3 Start Charging Screen



6.2.4 Charging Screen

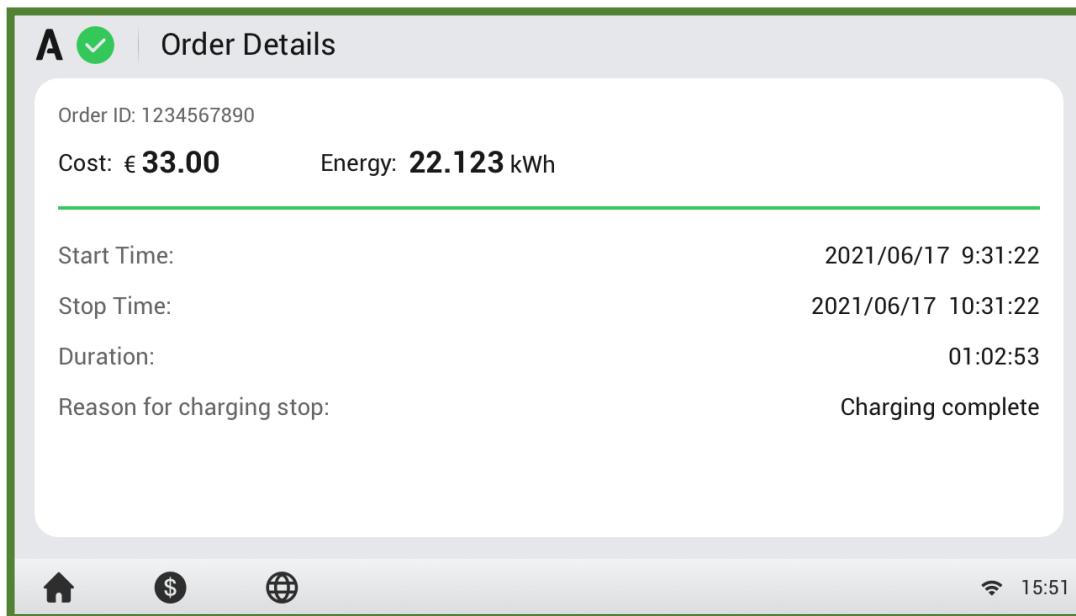
The Charging Screen will show the real-time charging progress, the current power, charging duration, current cost, as well as volume.

If needed, tap the **Stop** button on this screen to stop charging.



6.2.5 Order Details Screen

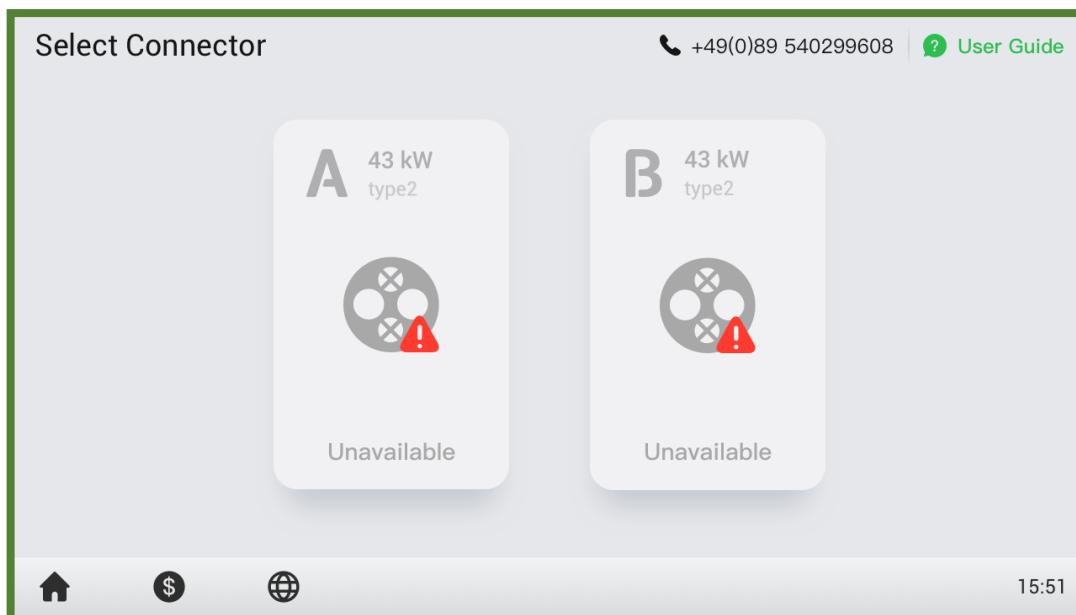
When the charge session ends, the Order Details Screen will appear.



6.2.6 Error Screen

The display shows different error messages depending on the error type. Resolve the problem(s) by following the on-screen instructions, contacting Autel Support or trying another MaxiCharger. Below is an example for the error screen:

If the charging handle is not available, the following screen may appear.



7

Troubleshooting

7.1 Troubleshooting Table

Item	Problems	Solutions
1	The charging station is successfully added, but the Bluetooth connection fails	Check whether the QR code on the charging station is consistent with the QR code on the Quick Reference Guide. If so, make sure the Bluetooth is enabled on your mobile device; if not, contact customer support.
2	The charge session does not start as scheduled	Do not insert the connector into your EV charging port before setting up a charging schedule for the first time. Insert the EV charging cable after the schedule is set up.
3	Over-voltage	Use the multimeter to check whether the voltage on the power input is too high. If the result is greater than or equal to 120 % of the rated voltage (276 V), contact local power grid company.
4	Under-voltage	Use the multimeter to check whether the voltage on the power input is not sufficient. If the result is less than or equal to 70 % of the rated voltage (161 V), contact local power grid company.
5	Ground fault	Ensure the charging station is grounded correctly.
6	Power failure	Ensure the switch to the circuit breaker is on.
7	Over-heating	<ul style="list-style-type: none">● Check whether the EV charging cable is securely connected.● Ensure the operating temperature is within the specified range on the product label.● Stop charging. Restart charging until it is within the operation temperature range.
8	Residual current detected	Unplug the vehicle and plug in again. If the problem persists, contact customer support.
9	Bluetooth communication failure	<ul style="list-style-type: none">● Ensure the Bluetooth is enabled on your mobile device and the charging station is powered on and operating properly.● Forget the charging station in the Bluetooth settings on your mobile device and pair it to your device via Bluetooth again.● If the problem persists, contact customer support.
10	Update failure via Bluetooth	<ul style="list-style-type: none">● Ensure the charging station is in idle status.● Ensure the Bluetooth connection is working properly.● If the problem persists, contact customer support.
11	Internet connection fails	<ul style="list-style-type: none">● Try to connect another device to the same Internet, verifying the Internet connection is working properly.● If the problem persists, contact customer support.

8 Specifications

8.1 Product Specifications

Item	Description
AC Power Output Rating	2 x 22 kW
AC Power Input Rating	400 V ± 15%, three-phase, 50 Hz
Network Type	TN, IT, and TT
Circuit Breaker	40 A
Input Wiring Scheme	400 V AC, three-phase (3P + N + PE)
Connector Type	IEC 62196 Type 2 socket or socket with shutter
Display	8-inch touchscreen with 1280 x 720 resolution
Metering	MID, Eichrecht
Ground Fault Detection	Type A 30 mA + DC 6 mA
Protection	Overcurrent, overvoltage, undervoltage, integrated surge protection
Connectivity	<ul style="list-style-type: none">● 4G● Bluetooth● Wi-Fi● Ethernet● RS485
Card Reader	ISO 15693, ISO 14443, Credit Cards
Communications Protocol	OCPP 1.6J (upgradable to OCPP 2.0.1)
Mounting	Wall-mounted or floor using a pedestal
Enclosure Ratings	<ul style="list-style-type: none">● IP54● IK10● Indoor or outdoor installation
Operating Temperature	(-40 to 55 °C)
Storage Temperature	(-40 to 70 °C)
Dimension (H x W x D)	320 x 170 x 658 mm
Operating Humidity	≤ 95%, non-condensing
Operating Altitude	2000 m

Item	Description
Safety and Compliance	IEC/EN 61851-1, EN 62311, EN 62479, IEC/EN 62955
Codes and Standards	EMC Class B, UKCA, BSI 7671
Warranty	3 years

8.2 LED Descriptions

LED	Description
Status LED	<ul style="list-style-type: none"> ● Solid Green: The charging station is in standby mode. ● Breathing Green: An EV is connected and a charge session has started. ● Flashing Green: A charge session has ended. ● Solid Red: An error has occurred. ● Solid Yellow: The charging station is not available due to any of the followings: <ul style="list-style-type: none"> – The firmware is upgrading. – The charging station is reserved. – It is temporarily disabled by the backend.
RFID LED	<ul style="list-style-type: none"> ● Solid Green: The RFID function is enabled. ● Not Illuminated: The RFID function is disabled.

9 Compliance

The product is in conformity with the following standards and/or other normative documents:

EN 301 489-1 V2.2.3

EN 301 489-3 V2.1.1

EN 301 489-17 V3.2.4

EN 301 489-52 V2.1.1

EN 300 328 V2.2.2

EN 300 330 V2.1.1

EN 301 908-1 V13.1.1

EN 301 908-2 V13.1.1

EN 301 908 -13 V13.1.1

EN 301 511 V12.5.1

EN 50663

EN 50665

BS EN IEC 61851-1

EN IEC 61851-1

IEC 61851-21-2

EN IEC 61851-21-2

EN 50470-1

EN 50470-3

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