

MaxiCharger DC Compact
(Pedestal/Trolley Mounting)

Installation and Operation Manual

Version 4

CE Model

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NOTICE

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 DC Compact. Prior to installation, read through this manual to get familiar with the instructions of this charging station to ensure a successful installation and smooth operations.

This document is intended for these groups:

- Owner of the Charging Station (see [2.2 Owner Responsibilities](#))
- Installation Engineer (see [2.3 Installation Engineer Qualifications](#))

1.1 Conventions

1.1.1 Bold Text

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

1.1.2 Signal Word



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.



NOTICE

Provides helpful information such as additional explanations, tips, and comments.

1.1.3 Illustrations

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

1.1.4 Revision History

Version	Date	Descriptions
V1	2022.11.25	Initial version
V2	2023.02.20	Complete overhaul
V2.1	2023.05.05	Product name revision Linguistic revision Section 2.1 Fire protection added Section 2.2 Disposal instructions added Section 3.4 Product dimensions added Chapter 5 Installation updated Section 6.3 Emergency stop response added Section 6.5 Configuring the cloud platform added
V3	2023.07.04	Side cover of the charging station updated Most figures updated Technical specifications updated Packing list updated Section 5.3/5.4/5.5 updated Section 6.3 updated
V3.1	2023.10.13	Section 2.2 updated Section 3.3 updated
V3.2	2024.05.10	Section 3.4 Principle diagram added Section 5.4.1 AC Input cable information updated Section 10.1 Technical specifications updated Section 10.2 Derating curve added
V4	2025.01.21	Content related to the MaxiCharger DC50 added

1.2 Terminology

Term	Definition
CCS	Combined Charging System
CCU	Charging control unit
DC	Direct current
ECU	Equipment control unit
EV	Electric vehicle
MCB	Miniature Circuit Breaker, a device that interrupts a circuit when it detects an abnormal current flow
OCPP	Open charge point protocol, an open standard for communication with charging stations
RCD	Residual Circuit Device, a device that interrupts a circuit when it detects a current leakage
RFID	Radio-frequency identification, a method of charging authentication

2 Safety

For your own safety and the safety of others, and to prevent damage from the device 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 device.

2.1 Safety Warnings

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

- Disconnect the power supply to the charging station during the entire installation procedure.
- The load capacity of the grid must meet the requirements of the charging station.
- Connect the charging station to a grounded, metal, and permanent wiring system. Otherwise, run an equipment grounding conductor with circuit conductors and connect it to the equipment grounding terminal or lead on the product.
- Unqualified personnel must keep a safe distance during the entire installation procedure.
- The connections to the charging station must comply with all applicable local rules.
- Only use electrical wires of sufficient gauge and insulation to handle the rated current and voltage demand.
- Protect the wiring inside the charging station from damage and do not obstruct the wiring when you perform maintenance on the cabinet.
- Protect the charging station with safety devices and measures as specified by local rules.
- Do not install or use this equipment near flammable, explosive, harsh, or combustible materials, chemicals or vapors.
- If applicable, install a fire alarm system near this equipment to detect fires in an early manner.
- Do not tilt over 10 degrees while using the trolley models; otherwise, the charging station's touchscreen will appear a warning message.
- If any specifications or regulations mentioned in this manual contradict with your local rules, refer to your local rules.

2.2 Owner Responsibilities

The owner runs the charging station for commercial or business use or has authorized a third party to use it.

The owner should protect the users, employees or third parties when the charging station is in use. The owner bears the following responsibilities:

- Know and obey the local codes and ordinances.
- Ensure all employees and third parties are qualified to operate the charging station.

- Ensure the charging station has been equipped with protective devices.
- Ensure all the protective devices are installed after installation or maintenance.
- Ensure the space around the charging station is sufficient to carry out installation or maintenance work.
- Ensure there is a plan in place in case of an emergency.
- Ensure there are no safety hazards on the site.
- Have a site operator available who undertakes the safe operation of the charging station and all the coordination work if the owner takes no part in the work.
- Ensure the installation engineer follows the local codes and ordinances, the installation instructions, as well as the specifications of the charging station.

2.3 Installation Engineer Qualifications

- Fully understands the equipment and its safe installation procedures.
- Qualified according to local regulations to carry out the installation work.
- Able to follow all the local regulations and this manual to complete the installation of the charging station.

2.4 Usage Instructions

Do not operate the charging station and immediately contact the manufacturer if any of the following situation arises:

- Damage on the enclosure, charging cable or charging handle
- Lightning has struck the charging station
- Fire or flames at or near the charging station
- Any sign of damage caused by water on the charging station

2.5 Signs on the Charging Station

Symbol	Risk Description
	General risk
	Hazardous voltage that gives risk of electrocution
	Waste from electrical and electronic equipment
	Hot surface that gives risk of burn injuries

2.6 Disposal Instructions

Potentially hazardous substances of the charging station can have a negative impact on the environment and human health if the waste is not handled properly. Dispose any waste as needed to protect the environment and promote the reuse and recycling of the materials.

- 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.

2.7 Cyber Security



NOTICE

This section is applicable to the Ethernet and Wi-Fi connection.

The charging station can use a network interface for connection and information and data communication. The owner bears the responsibility of a secure connection between the charging station and the owner's network or any other networks.

Appropriate measures shall be taken by the owner to shield the charging station, the network, the system, and the interface from any security breaches, unauthorized access, interference, intrusion, leakage and/or theft of data or information. These measures may include firewall building, authentication methods, data encryption, and anti-virus programs installation, etc.

Autel is not liable for damages and/or losses pertaining to the security breaches described above.

3 General Introduction

The MaxiCharger DC Compact is designed to charge an electric vehicle (hereinafter called EV). Our charging stations provide safe, reliable, fast, and smart charging solutions.

This charging station is intended for the DC charging of EVs. It is intended for both indoor and outdoor uses:

- Fleets
- Highway rest stops
- Commercial parking garages
- Other locations

DANGER



- Do not operate the equipment in any way other than described in this manual or other related documents released by Autel. Failure to comply may cause potential personal injury and/or damage to the property.
- Use the charging station only as intended.

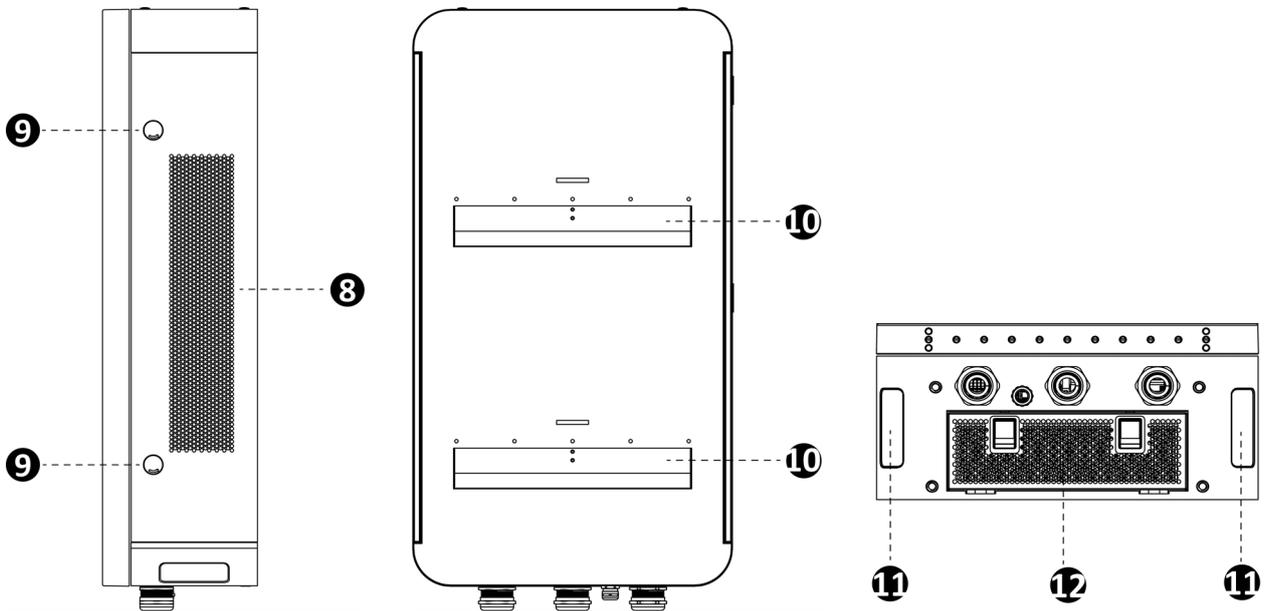
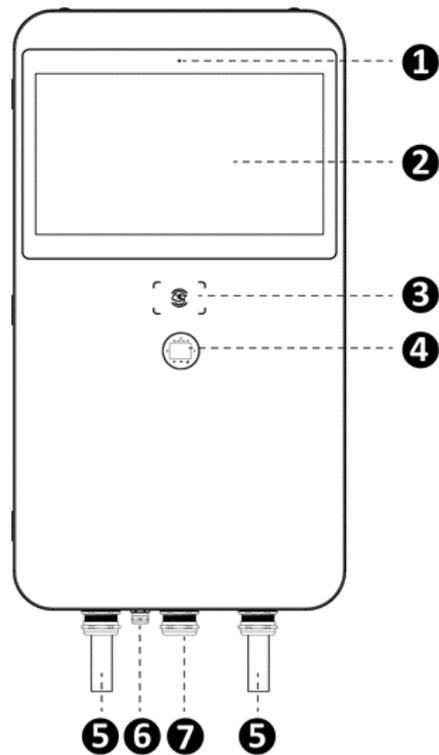


NOTICE

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

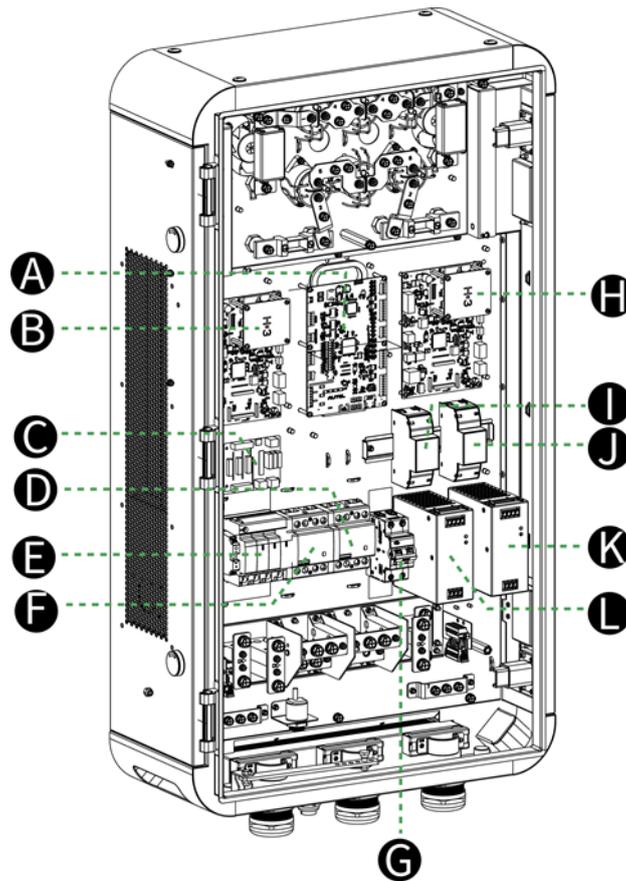
3.1 Product Overview (Outside)

1. Ambient Light Sensor
2. Touch Screen
3. RFID Card Reader
4. POS Payment Device (optional)
5. EV Charging Cable
6. Ethernet Cable Port
7. AC Inlet Hole
8. Vent – each on the right and left side
9. Lock
10. Groove
11. Lifting Handle
12. Bezel

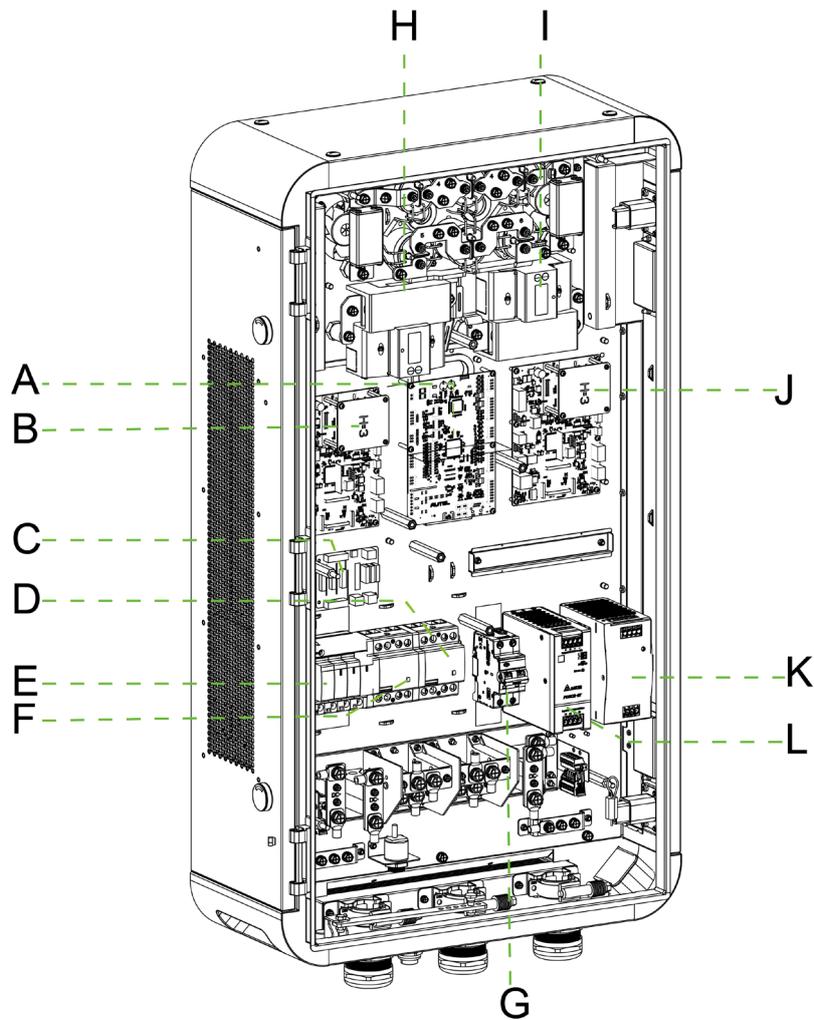


3.2 Product Overview (Inside)

DC40:



- | | |
|---------------------------------|--|
| A. Equipment Control Unit | G. Residual Current Breaker with Over-Current (RCBO) |
| B. Communication Control Unit 1 | H. Communication Control Unit 2 |
| C. Power Hub | I. Energy Meter (PJ1) |
| D. AC Contactor (KM2) | J. Energy Meter (PJ2) |
| E. Surge Protection Device | K. 48 V Auxiliary Power |
| F. AC Contactor (KM1) | L. 24 V Auxiliary Power |



- | | |
|---------------------------------|--|
| A. Equipment Control Unit | G. Residual Current Breaker with Over Current (RCBO) |
| B. Communication Control Unit 1 | H. DC Meter |
| C. Power Hub | I. DC Meter |
| D. AC Contactor (KM2) | J. Communication Control Unit 2 |
| E. Surge Protection Device | K. 48 V Auxiliary Power |
| F. AC Contactor (KM1) | L. 24 V Auxiliary Power |

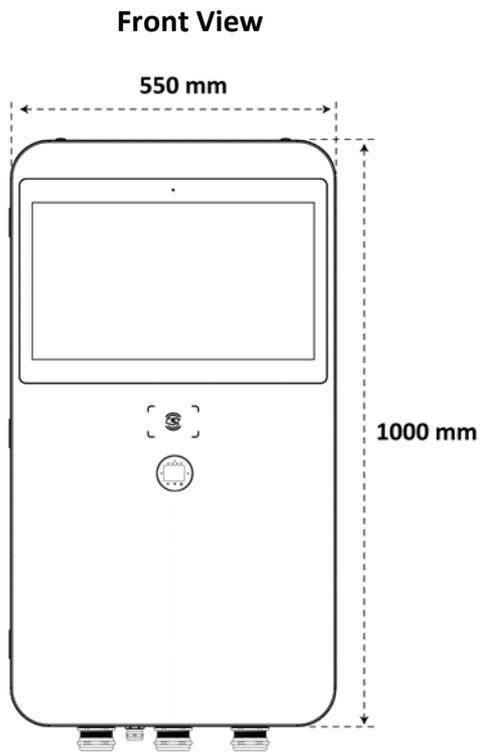


NOTICE

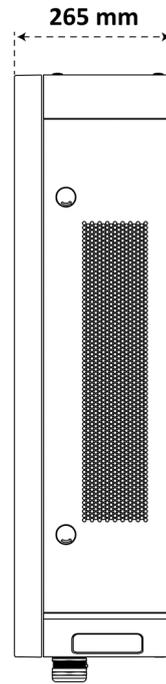
The meters in the illustration above may differ from those in your charging station. Please refer to the actual product.

3.3 Product Dimensions

Charging Station

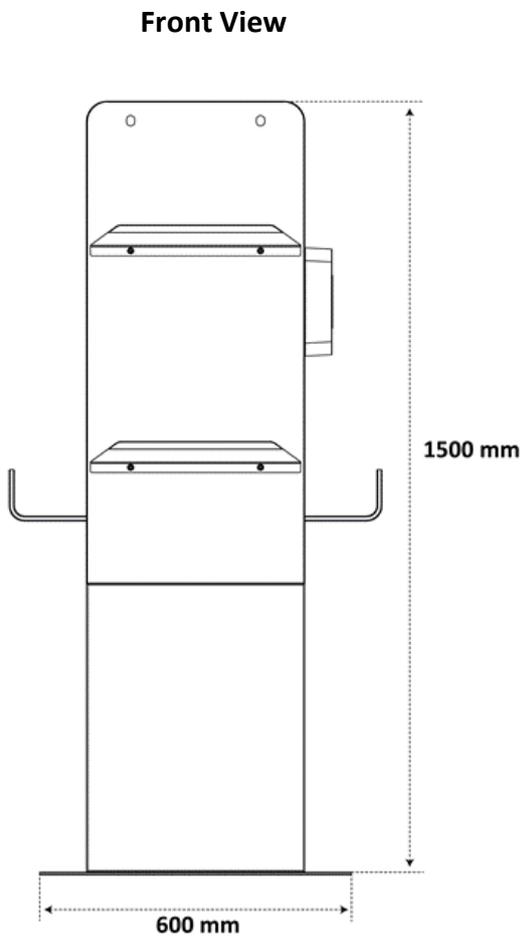


Side View

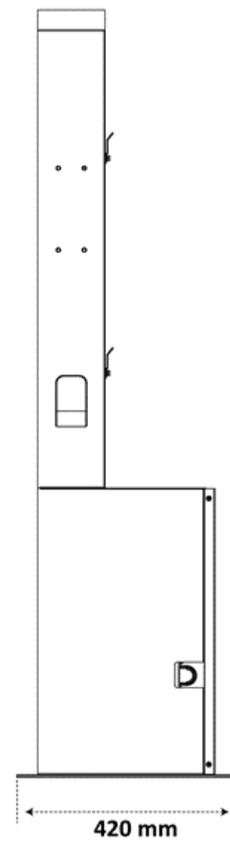


Pedestal

DC40:



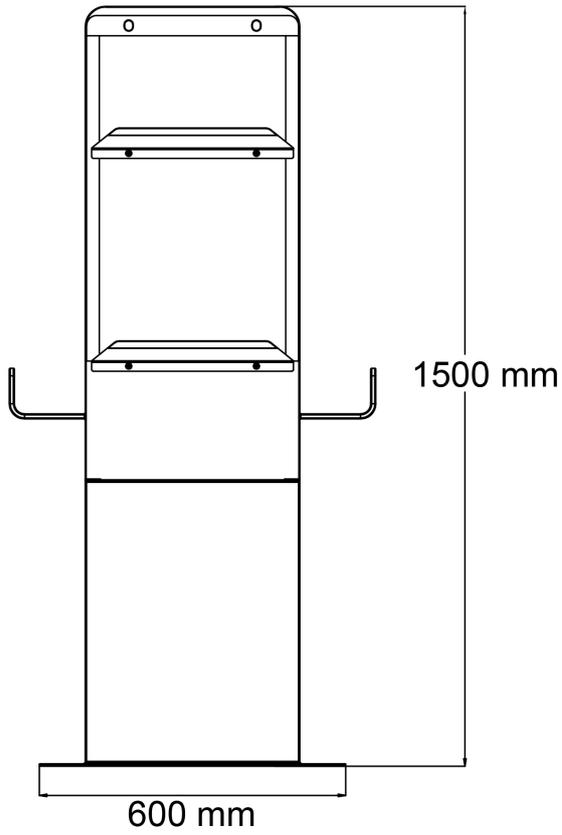
Side View



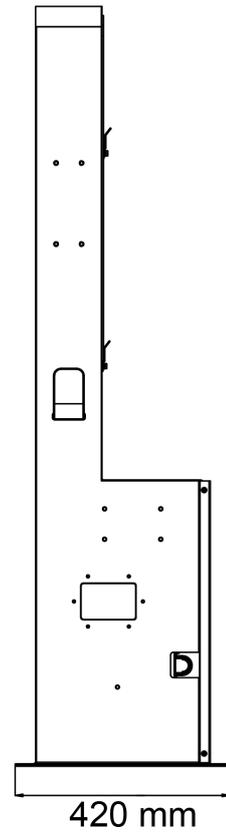
DC50:

Model 1

Front View

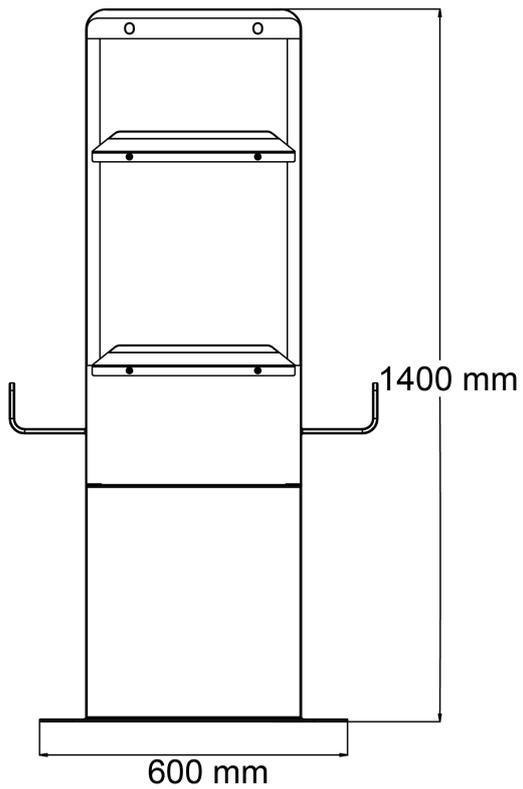


Side View

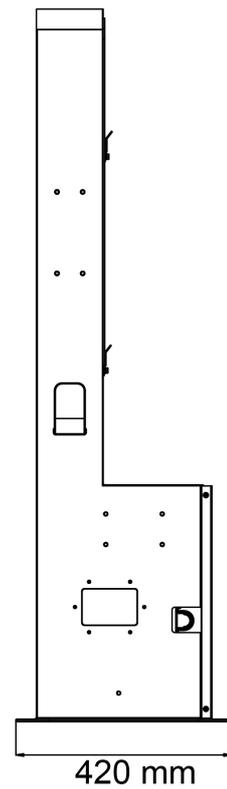


Model 2 (ADA Accessible Model)

Front View



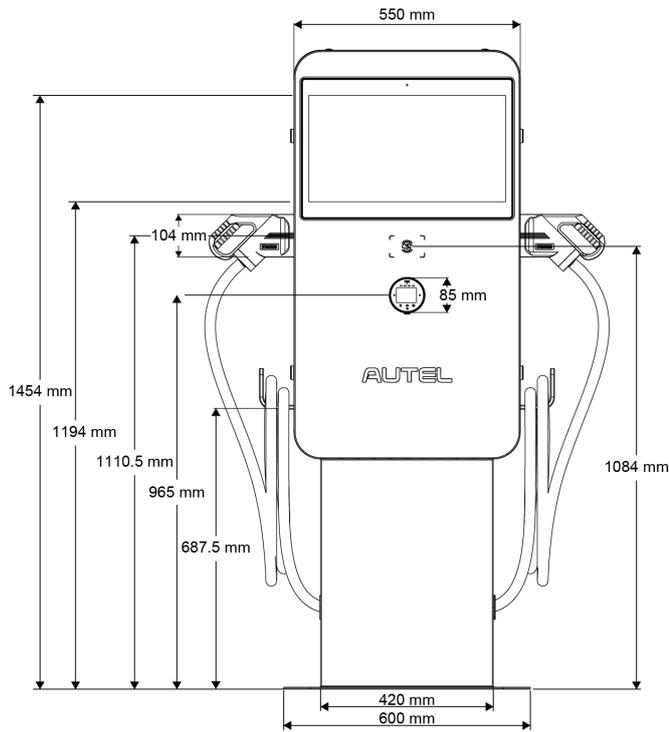
Side View



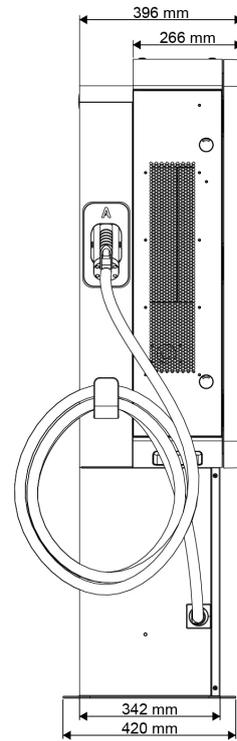
Pedestal-mounted Charging Station

DC40:

Front View



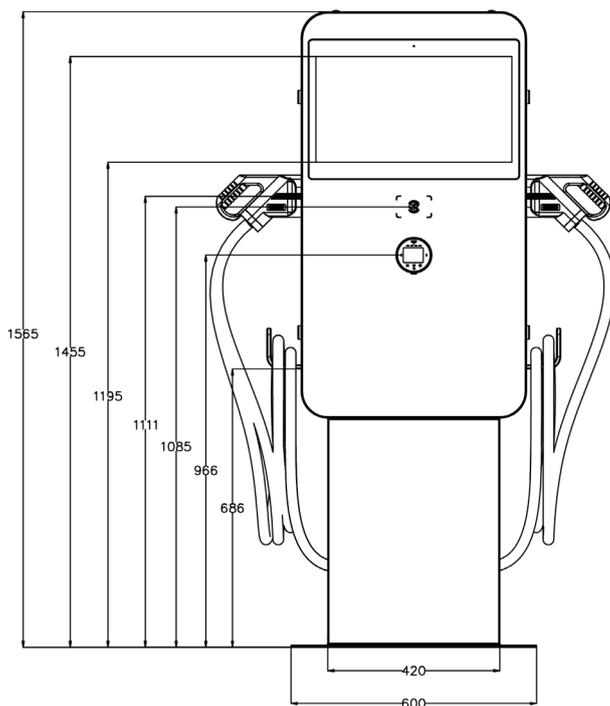
Side View



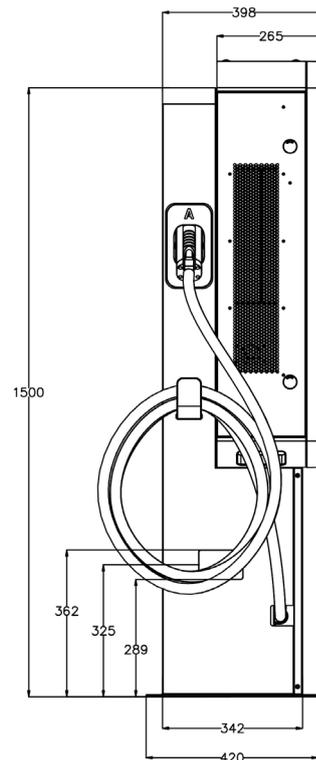
DC50:

Model 1

Front View

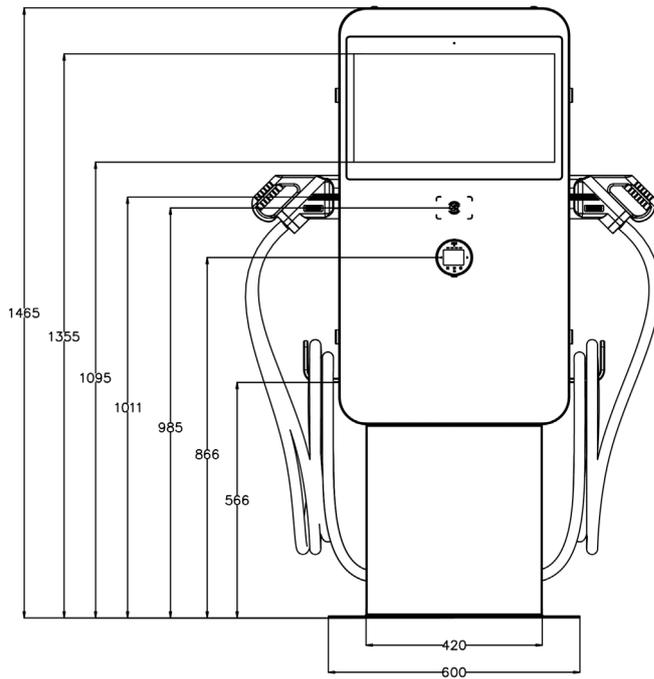


Side View

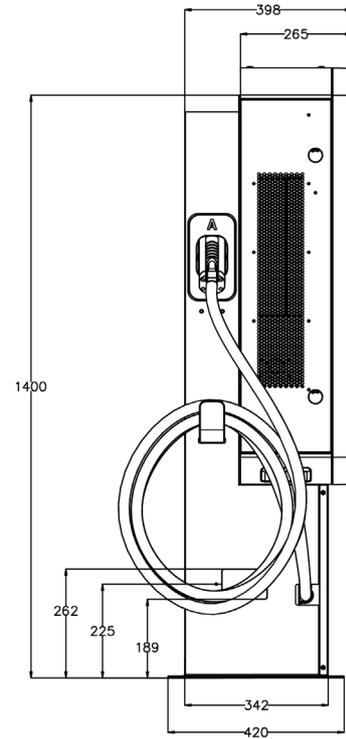


Model 2 (ADA Accessible Model)

Front View

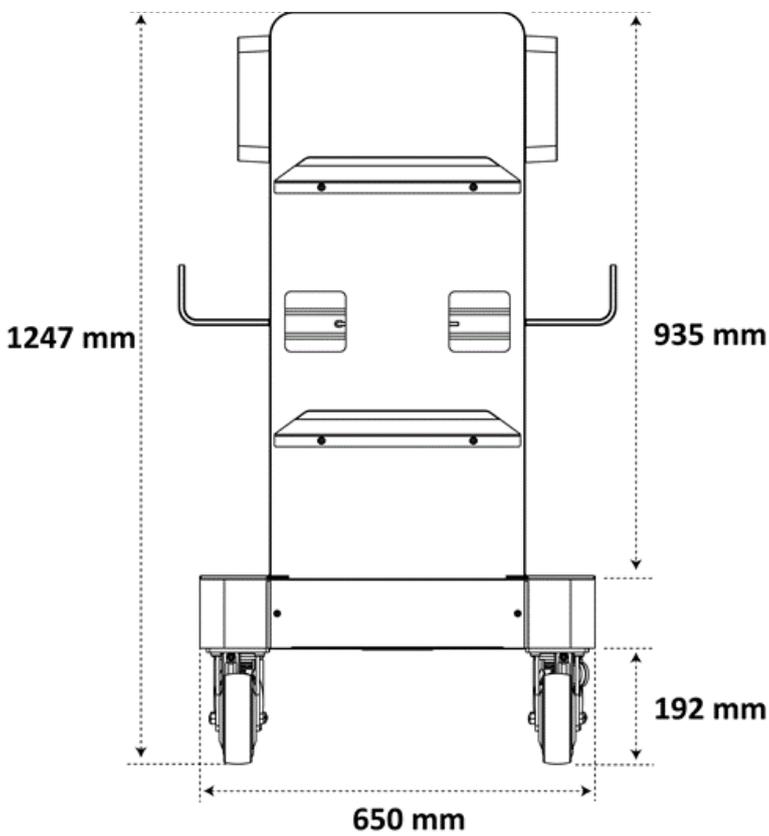


Side View

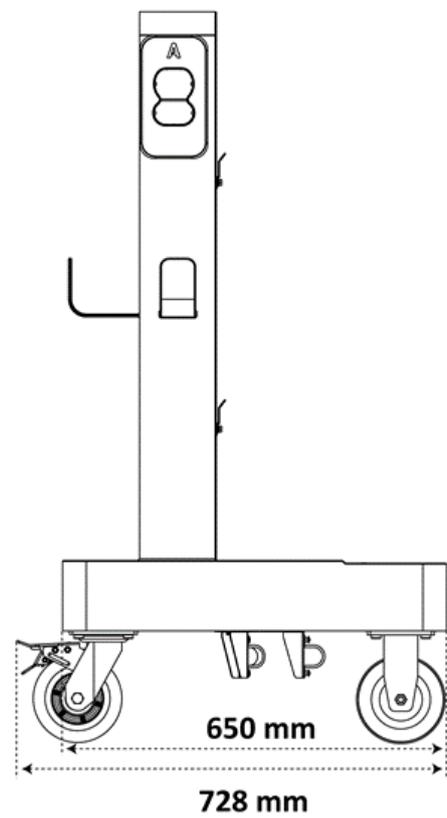


Trolley

Front View

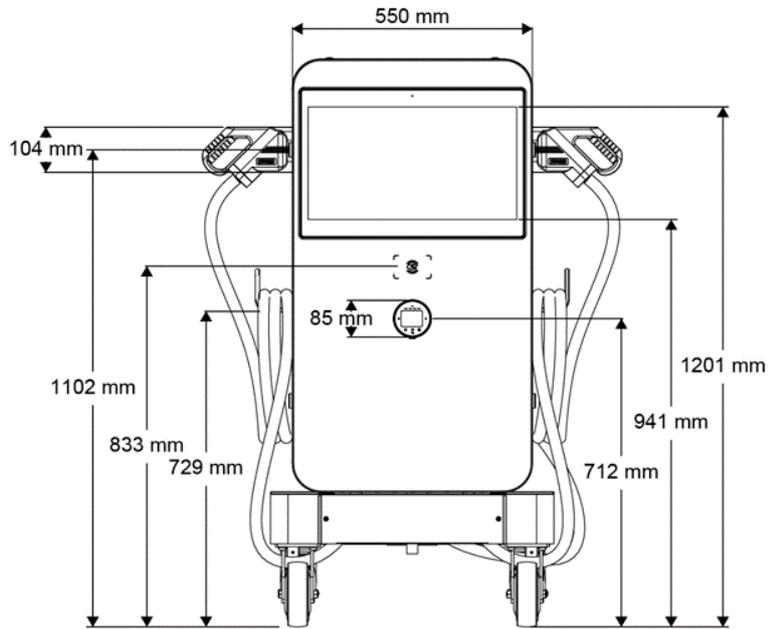


Side View

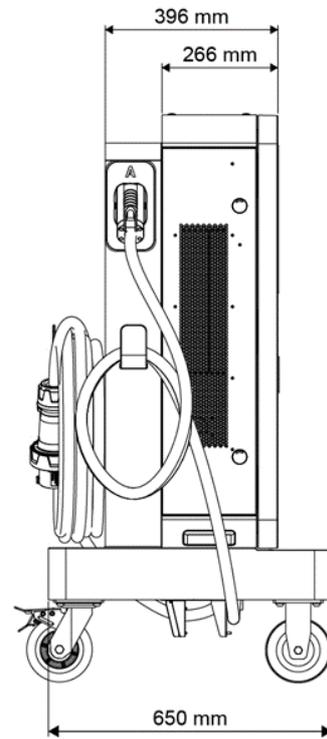


Trolley-mounted Charging Station

Front View

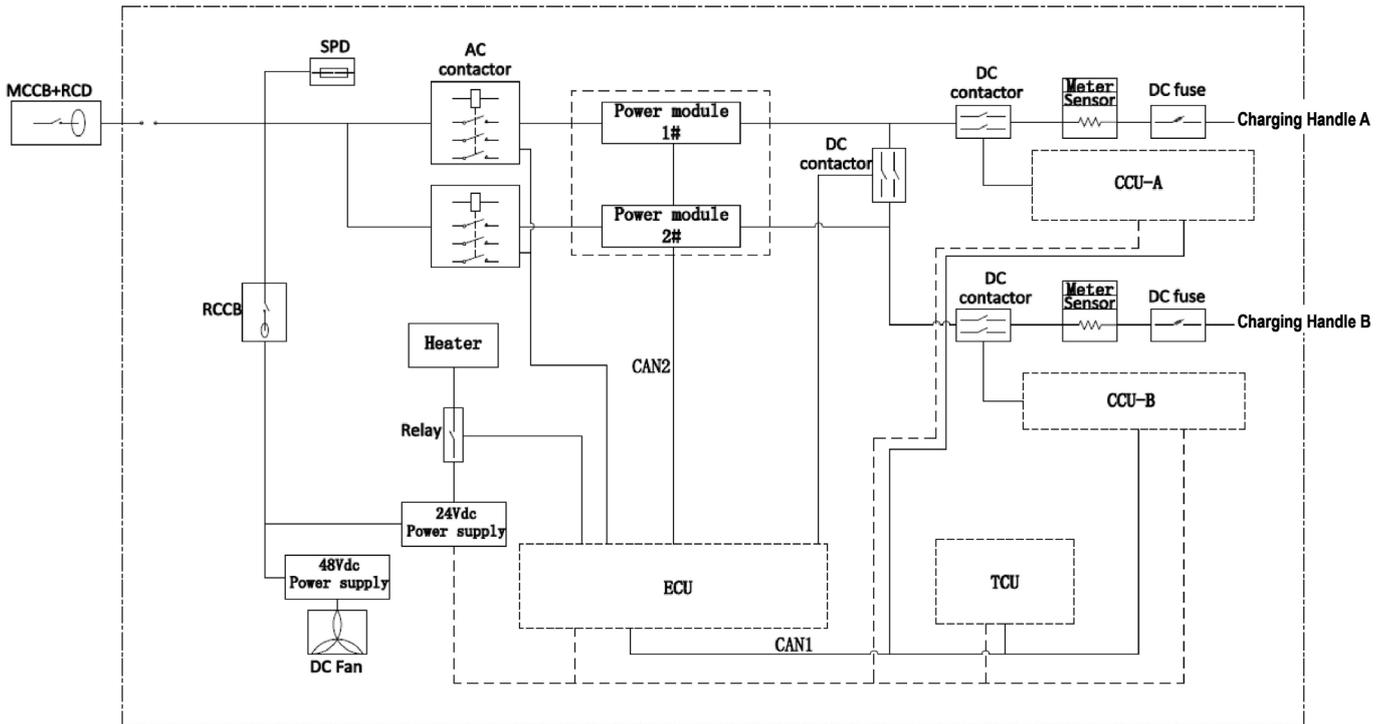


Side View

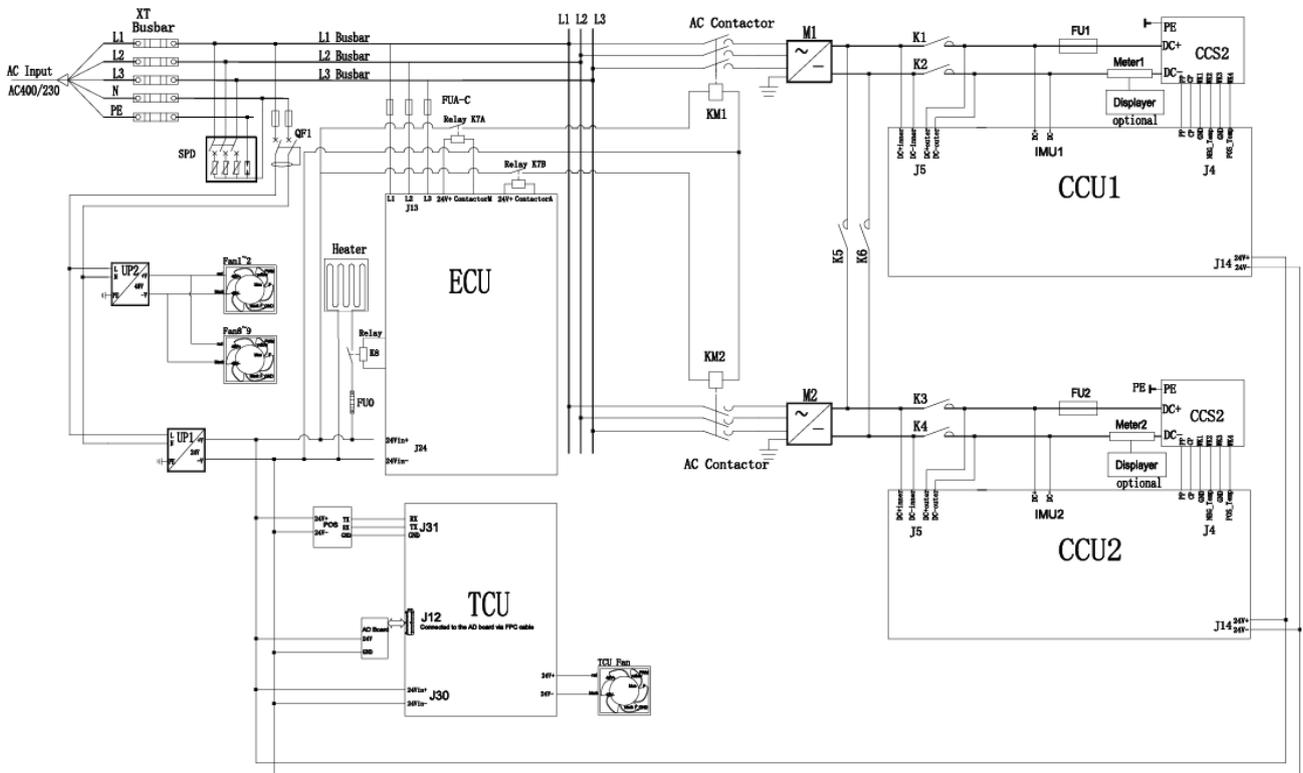


3.4 Principle Diagram

DC40:



DC50:



4 Preparation

4.1 Before You Begin

- Ensure appropriate wiring, circuit protection, and metering are in place at the installation site, according to the specifications, wiring diagrams, and grounding requirements.
- The cellular coverage at the installation site should be consistently strong if you choose to communicate over cellular network for the charging station. Use a cellular signal detection device to ensure the signal is above -90 dBm. If the signal is below -90 dBm, install repeaters to boost the strength of the cellular signal. Repeaters are often required when the charging station is installed in underground environments such as an underground garage or an enclosed parking space.
- There is enough space available around the installation site to use a lifting equipment, to unpack, and to allow people to work around freely.
- Ensure the charging handle of the charging station can reach vehicles' charging port with the chosen cable length. The standard length of a charging cable is 5.5 m, and 7.5-meter cables are also available.

4.2 Location Requirements

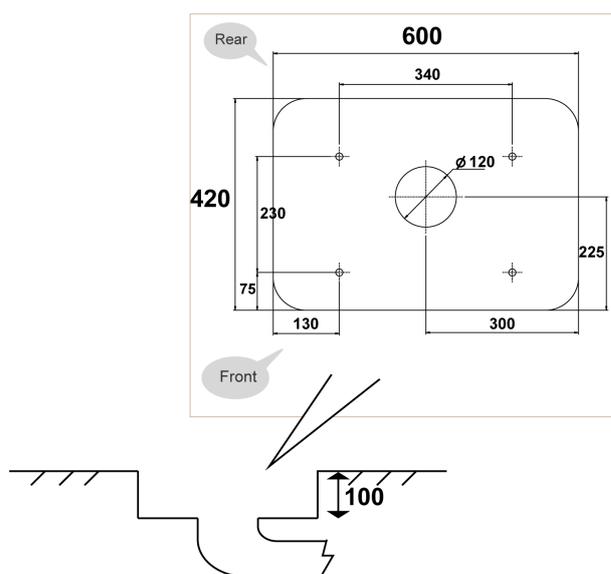
For the pedestal-mounting models, the pedestal can be installed on an existing concrete. To safely mount the equipment, the concrete should be at least **80 mm** thick and its surface should be perfectly flat and level.

If a new foundation is required, prepare one according to the recommended dimensions (600 mm x 420 mm x 100 mm) (W x D x H).



NOTICE

It is recommended that the foundation be flush with the surface.



Unit: mm

4.3 Installation Tools and Materials

The MaxiCharger DC Compact supports the following installation options:

- Floor-standing using a pedestal
- Trolley-standing using a trolley
- Pedestal-mounted
- Trolley-mounted



NOTICE

- “Pedestal-mounted” and “trolley-mounted” indicate that the charging station has been installed on a pedestal or a trolley before shipment.
- No mechanical and electrical installation are required for the “trolley-mounted” model.

4.3.1 In the Box

For pedestal-mounted model:

Main Unit

1 PC



Lifting Eye Bolt (M12)

4 PCS



Torx Screwdriver (T25)

1 PC



Hex Key (6 mm)

1 PC



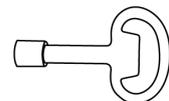
**Expansion Bolt
(M12 x 80)**

4 PCS



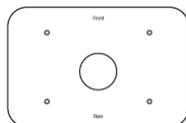
Triangle Socket Key

2 PCS



Drilling Template

1 PC



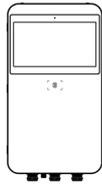
NOTICE

The illustration of **Main Unit** takes the MaxiCharger DC40 as an example.

For floor-standing installation:

Charging Station

1 PC



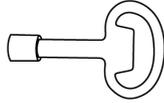
Lifting Eye Bolt (M12)

4 PCS



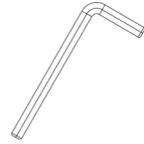
Triangle Socket Key

2 PCS



Hex Key (6 mm)

1 PC



Pedestal

1 PC



Expansion Bolt

(M12 x 80)

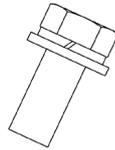
4 PCS



Screw (M12 x 30)

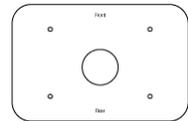
(2 PCS for spare)

4 PCS



Drilling Template

1 PC



Torx Screwdriver (T25)

1 PC



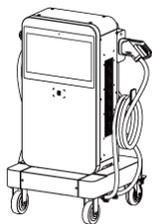
NOTICE

The illustration of **Pedestal** takes the MaxiCharger DC40 as an example.

For trolley-mounted model:

Main Unit

1 PC



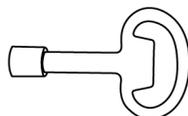
Hex Key (6 mm)

1 PC



Triangle Socket Key

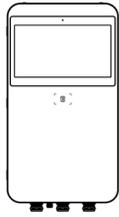
2 PCS



For trolley-mounted installation:

Charging Station

1 PC



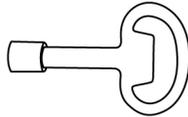
Lifting Eye Bolt (M12)

4 PCS



Triangle Socket Key

2 PCS



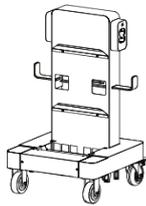
Hex Key (6 mm)

1 PC



Trolley

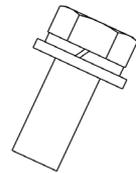
1 PC



Screw (M12 x 30)

(2 PCS for spare use)

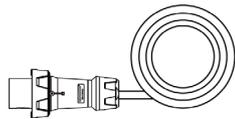
4 PCS



Industrial Plug

(with Cable)

1 PC



4.3.2 Recommended Tools

- Flathead Screwdriver
- Hoisting Equipment
- Socket Wrench (8 mm/10 mm/13 mm/19 mm)
- Phillips Screwdriver
- Power Drill
- Drill Bit (16 mm)
- Brush
- Wire Stripper
- Cable Lug (Recommended: SC16-8)
- Spirit Level
- Tape Measure
- Hammer
- Marker
- Crimping Tool
- Voltage Tester
- Digital Multimeter



NOTICE

- The tools mentioned above are not provided. Be sure to have all the tools prepared prior to the installation.
 - This tool list does not necessarily include all the tools you may need.
-

5 Installation

There are three possibilities when it comes to mounting the charging station:

- Mount it on a pedestal.
- Mount it on a trolley.
- Mount a pedestal-mounted charging station.

General Installation Procedures:

1. Unpack the shipping crate.
2. Move the equipment to the installation site.
3. Mount the equipment.
4. Complete the power supply wiring.
5. Connect the charging station to the Internet.
6. Finish installation.

The installation work should be carried out after a suitable location is chosen.

WARNING



- Cut off the power supply before opening the charging station.
- Do not touch the inside components of the charging station while it is powered on.
- Ensure no voltage is applied while the charging station is checked.
- Operate the charging station only when its door is closed and locked.

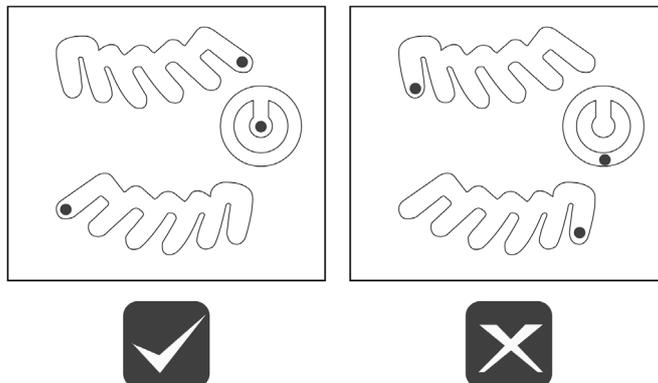


NOTICE

Always check local codes to ensure compliance. The guidelines described here are the minimum requirements. Ensure that the installation complies with all applicable codes.

5.1 Unpacking

1. Check the tilt and inversion indicators and the shock watch.
 - Observe the sensors attached to the package for the degree of the tilt. If the sensors demonstrate a severe tilt (over 30°) or a total inversion, **do not** refuse the shipment and note on the bill of lading the degree of the tilt.

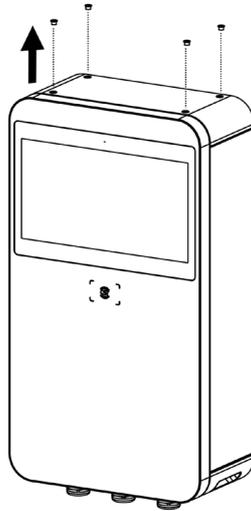


- If the shock watch appears red, **do not** refuse the shipment. Note on the delivery receipt and inspect for damage. If any damage is found, contact your local dealer.
2. Remove the packaging material.
 3. Inspect whether the charging station and the components are damaged. If any damage is found or the components are not consistent with the order, contact your local dealer.
 4. Make sure that all components are delivered according to the order.

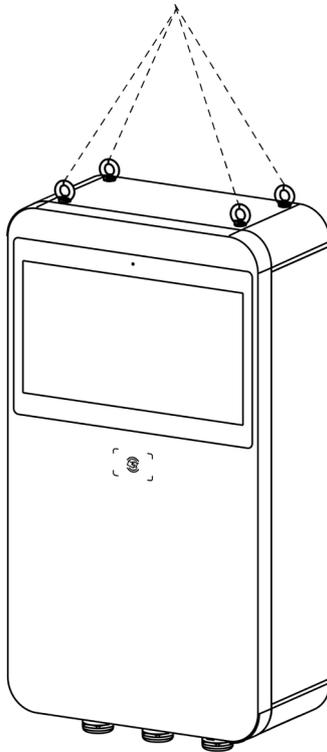
5.2 Moving the Charging Station

It is recommended that you move the charging station to the installation site using an appropriate hoisting equipment (crane, straps, and so on).

1. Remove the four screws on the top of the charging station using a flathead screwdriver. Set them aside.



2. Install and tighten the four M12 lifting eye bolts into the four holes.
3. Connect the cables of the hoisting equipment to the eye bolts' lifting loops. **DO NOT** tilt over 45° when hoisting the charging station.
4. Move the charging station to the installation site.



5.3 Installing the Charging Station

5.3.1 Installing on a Pedestal

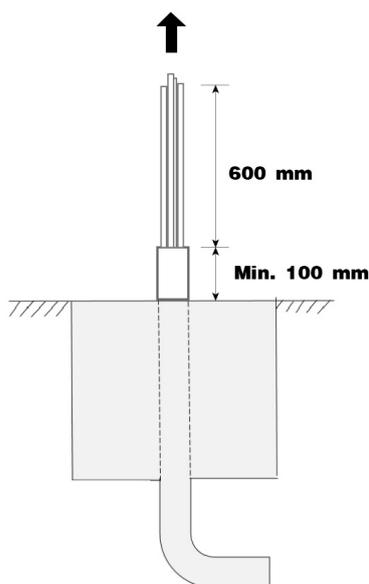
NOTICE



- This model and the pedestal-mounted model also support the cable management system ASC435 which can be purchased separately. Please refer to its *Quick Reference Guide* for installation instructions.
 - The illustrations in this section take the MaxiCharger DC40 as an example. For the MaxiCharger DC50, refer to the actual product.
-

Step 1

1. Trench and excavate a cable tunnel to accommodate the conduit. The outer diameter of the conduit should not exceed 120 mm.
2. The conduit stub-up should measure a minimum of 100 mm.
3. Pull the wires up through the exit opening, ensuring that a length of 600 mm is left above the conduit stub-up.



Step 2

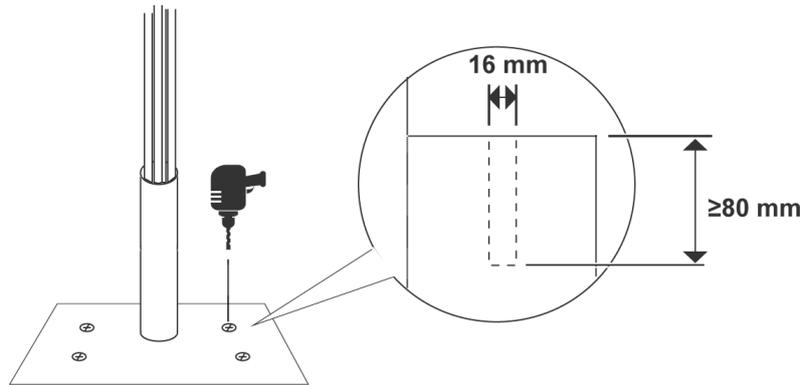
1. Place the drilling template on the concrete surface, aligning its central hole with the exit opening.



NOTICE

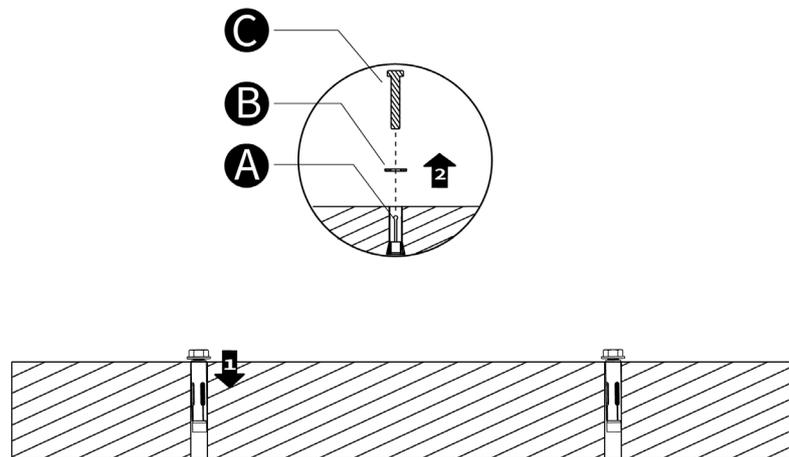
The “Front” side of the drilling template must face forward.

2. Mark four holes on the concrete surface using a marker. Remove the drilling template.
3. Drill four holes at the marked positions measuring 16 mm in diameter and at least 80 mm in depth.
4. Clean the dust.

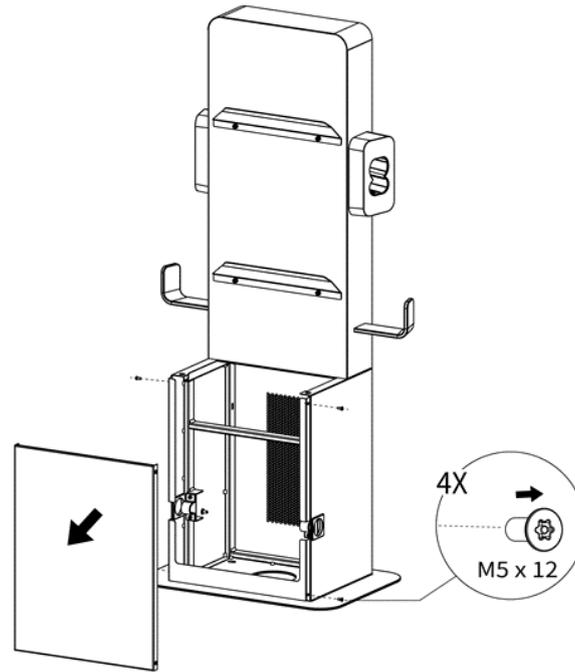


Step 3

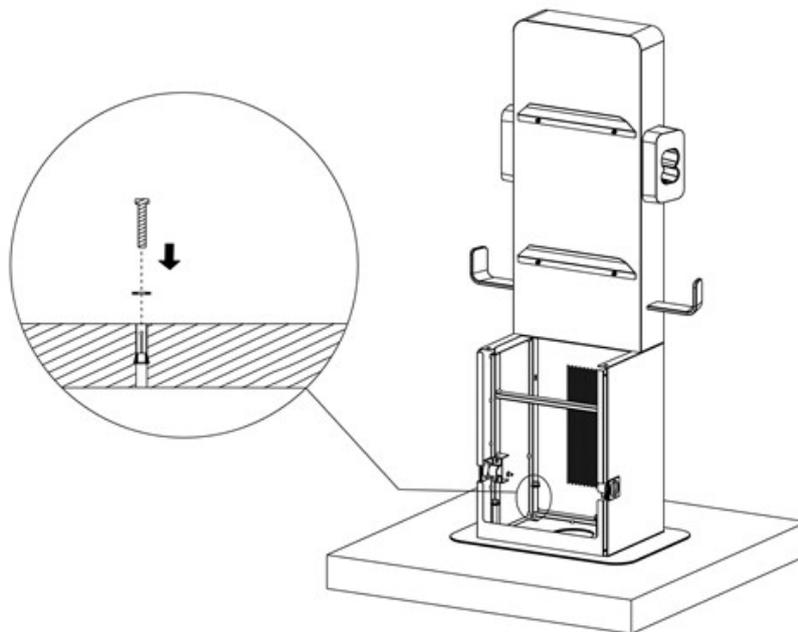
1. Screw the four M12 x 80 expansion bolts into the drilled holes. Use a 19 mm socket wrench to remove the threaded bolts (C) and flat washers (B) after the expansion sleeves (A) are stuck. Set them aside.



- Loosen the four M5 x 12 screws using the T25 Torx screwdriver to remove the front cover from the pedestal. Set them aside.

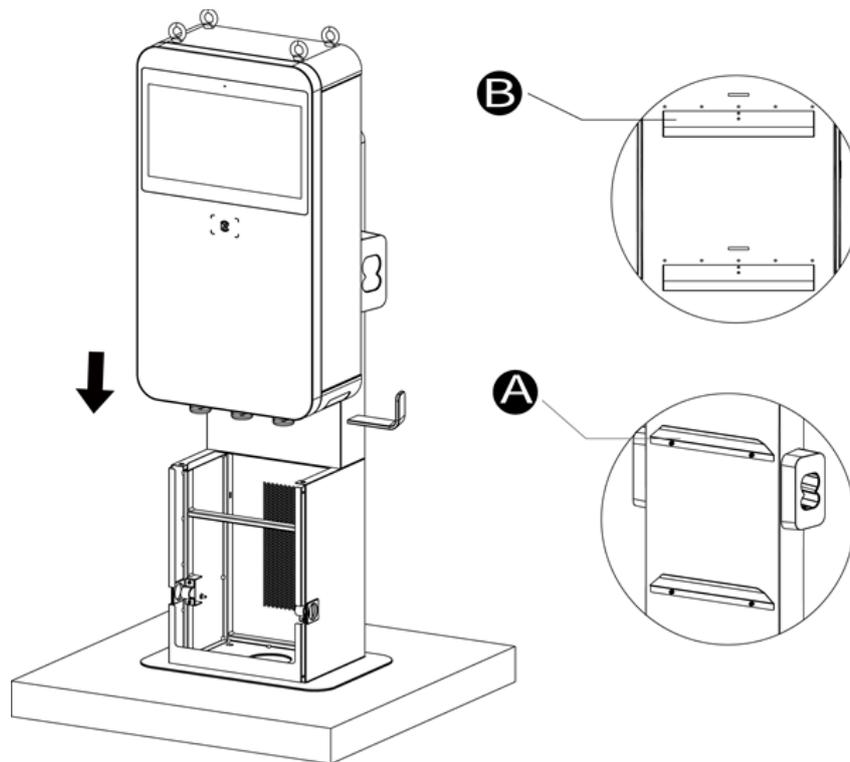


- Place the pedestal onto the mounting location, aligning it with the mounting holes.
- Reinsert the flat washers and threaded bolts in order and tighten them using a 19 mm socket wrench to 45 – 55 Nm.

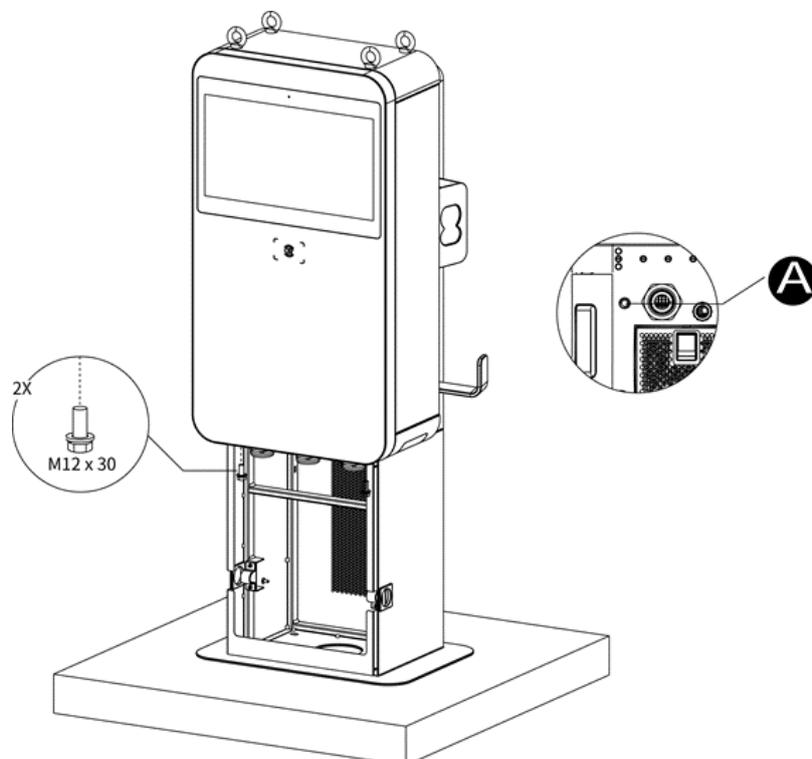


Step 4

1. Lift the charging station onto the pedestal with the hoisting equipment. Position the groove (B) on the back of the charging station to fit the protrusion (A) of the pedestal as shown below. Ensure the charging station is securely attached.



2. Insert and fasten the two M12 x 30 screws to the bottom holes (A) of the charging station using a 19 mm socket wrench to secure the charging station.



Step 5

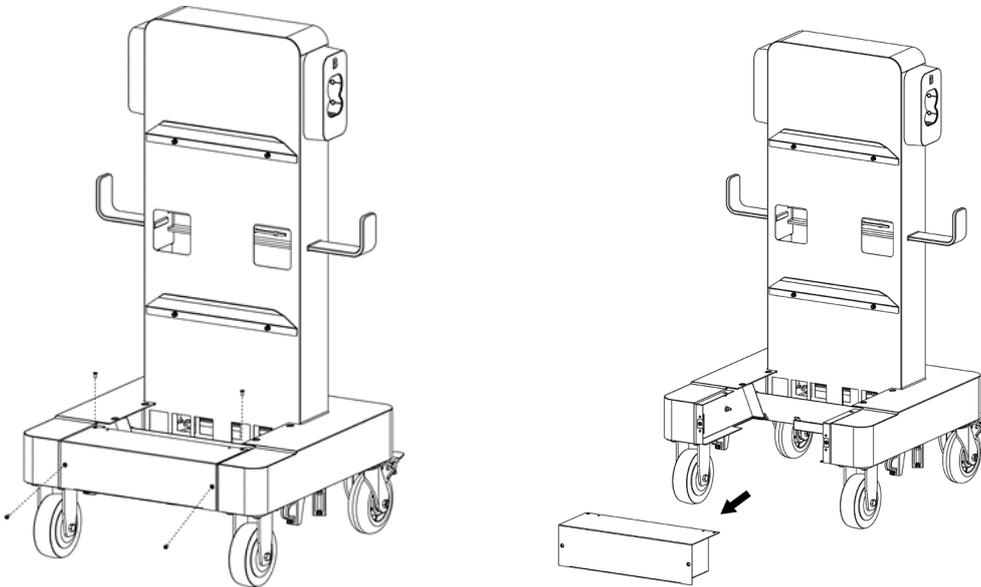
Remove the four lifting eye bolts and reinstall the top screws.

5.3.2 Installing the Pedestal-mounted Charging station

For the pedestal-mounted model, follow the steps in [Section 5.3.1](#) (skip Step 4) to mount the equipment.

5.3.3 Installing on a Trolley

1. Use a Phillips screwdriver to loosen the four M5 x 12 screws to remove the front cover of the trolley. Set them aside.



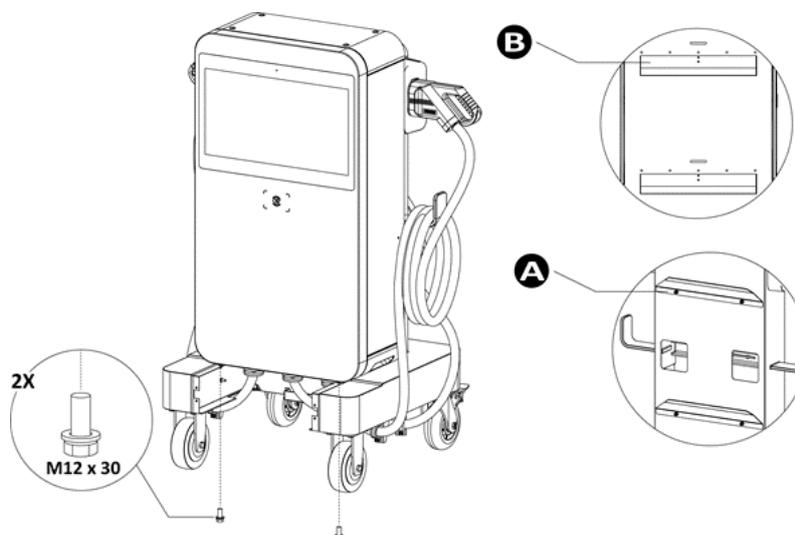
2. Lift the charging station onto the trolley. Position the groove (B) on the back of the charging station to fit the protrusion (A) of the trolley as shown below. Ensure the charging station is securely attached.



NOTICE

When lifting the charging station onto the trolley, press the foot brakes on the two rear wheels to prevent the trolley from moving.

3. Insert and fasten the two M12 x 30 screws using a 19 mm socket wrench to secure the charging station.



4. Remove the four lifting eye bolts and reinstall the top screws.

5.4 Power Supply Wiring

WARNING

Risk of Electric Shock

- Only a qualified electrician can determine the electrical requirements and connect wires.
- Ensure the power is off before connecting the wires.
- It is recommended that a 90 °C XLEP copper wire be used.
- The circuit breaker at the panel must be off.
- The charging station must be grounded to true earth.
- An insulated grounding conductor must be installed as part of the branch circuit that supplies the charging station.
- The grounding conductor should be grounded to earth at the service equipment or, when supplied by a separately derived system, at the supply transformer.
- All connections must comply with all local codes and ordinances.

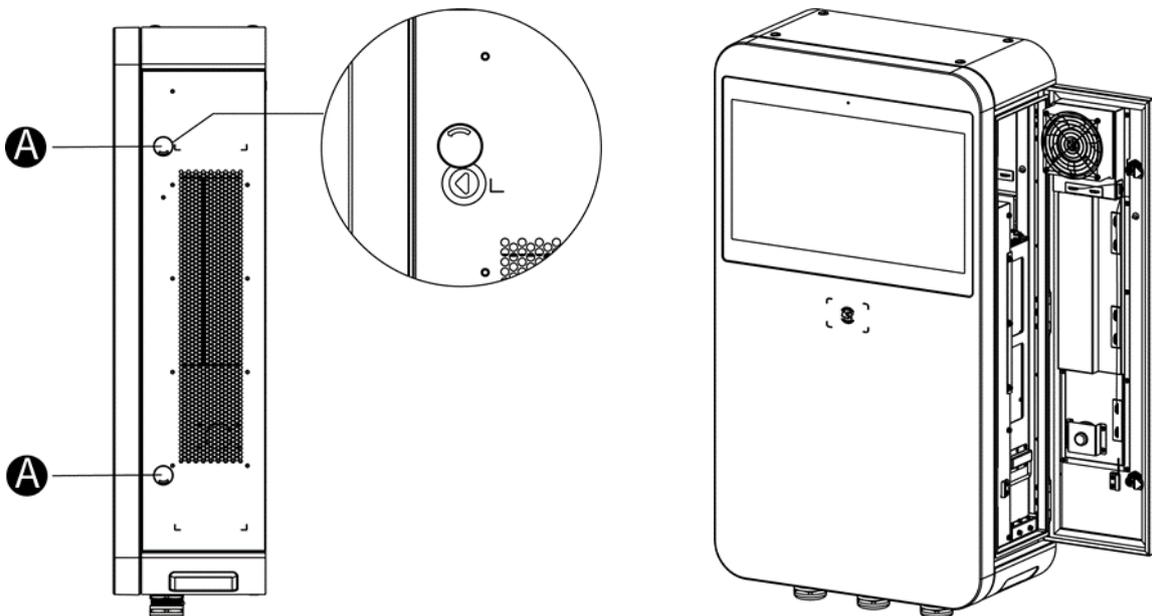


5.4.1 AC Input Cable Information

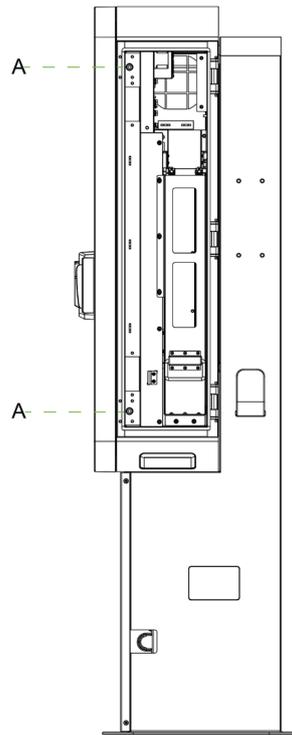
Charging Station	Power Input Voltage	Rated Input Current	Wire Gauge Size	Cable Lug Size	Cable Inlet Diameter
47 kW	400 V	75 A	5 x 16 mm ²	SC16-8	38 mm
50 kW	400 V	80 A	5 x 16 mm ²	SC16-8	38 mm

5.4.2 Connecting the AC Input Cable

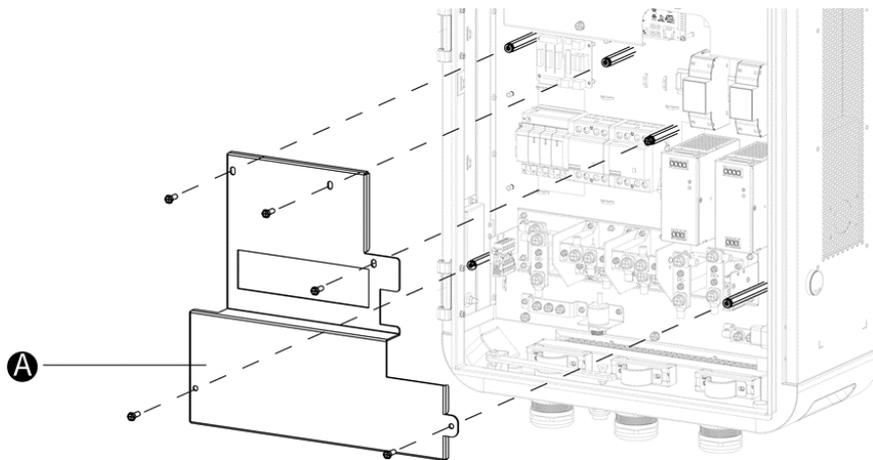
1. Flip open the lock cover (A) on the right side of the charging station, then insert the triangle socket key into the lock and turn it anti-clockwise to open the side door.



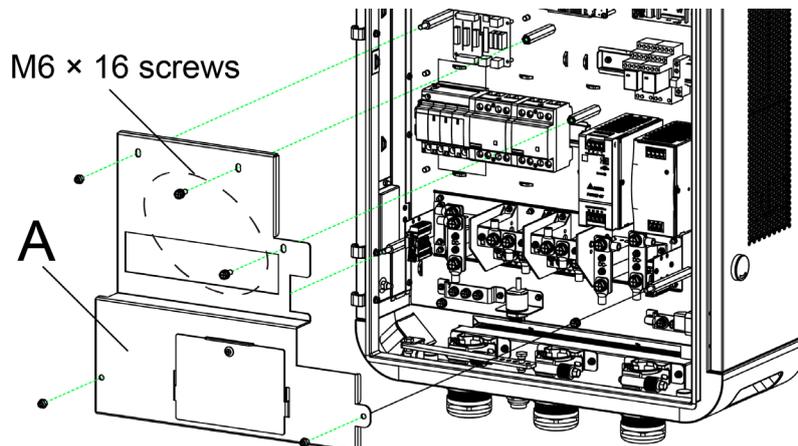
- Loosen the two M8 hex screws (**A**) using the hex key and open the front door.



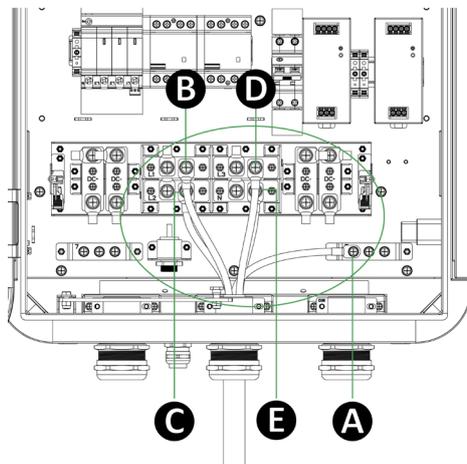
- For the MaxiCharger DC40, loosen the five M6 x 16 screws using a Phillips screwdriver to remove the insulating barrier (**A**) and set them aside.



For the MaxiCharger DC50, loosen the two M6 x 16 screws and the three M6 flange nuts using a Phillips screwdriver to remove the insulating barrier (**A**) and set them aside.



4. Pull the wires and guide them through the bottom AC inlet hole.
5. Use a wire stripper to remove insulation with an appropriate length from the end of the wires. Ensure the stripped length is compatible with the cable lugs.
6. Use the crimping tool to attach the cable lugs to the end of the wires.
7. Loosen the M6 fastener using a 10 mm socket wrench and connect the PE wire to the PE busbar **(A)**. Reinsert the fastener and tighten it to 6 Nm.
8. Use a 13 mm wrench to loosen the four M8 fasteners and attach the wires to the connectors:
 - L1 wire to the connector **B**
 - L2 wire to the connector **C**
 - L3 wire to the connector **D**
 - N wire to the connector **E**



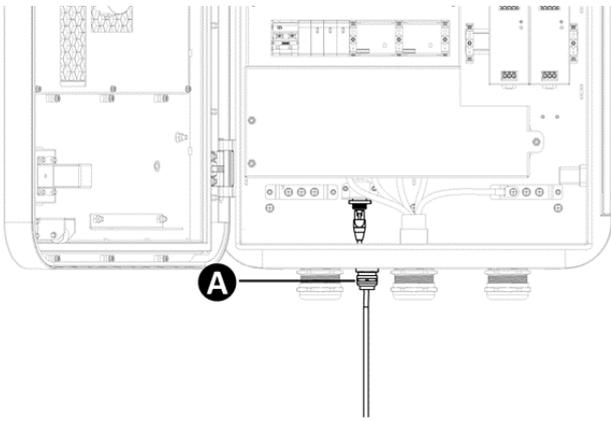
9. Reinsert the M8 fasteners and tighten them to 6 – 12 Nm.
10. Reinstall the insulating barrier.

5.5 Connecting to the Internet

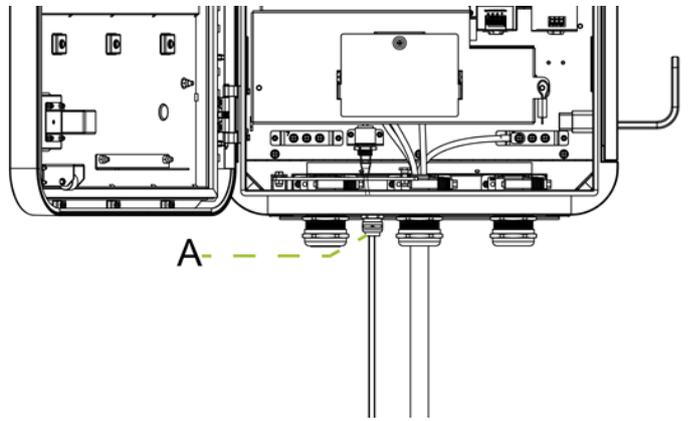
The charging station can access the Internet via Ethernet Cable, Wi-Fi or cellular network. The installation process varies among different connection methods. Select the optimal method to connect to the Internet and follow the steps below accordingly.

5.5.1 Ethernet Connection

1. Loosen the cable gland **(A)**.
2. Put the Ethernet cable through the Ethernet cable port at the bottom of the charging station.
3. Plug the Ethernet cable into the RJ45 port.
4. Tighten the cable gland **(A)**.



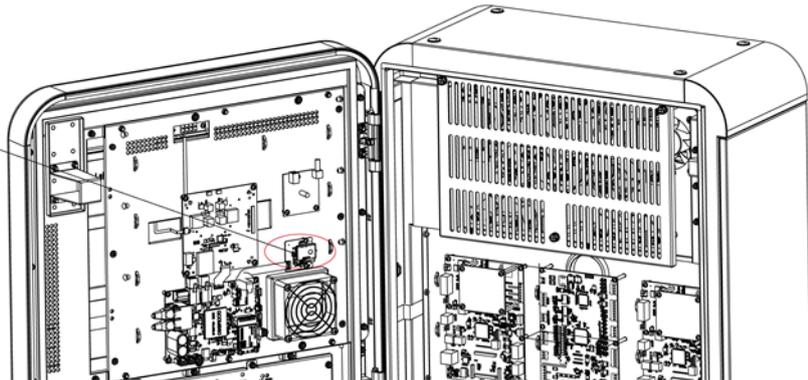
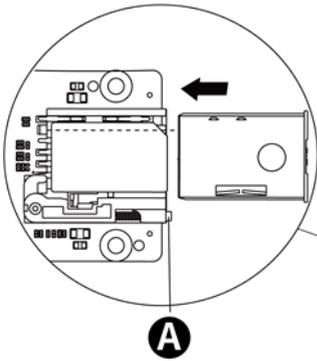
DC40



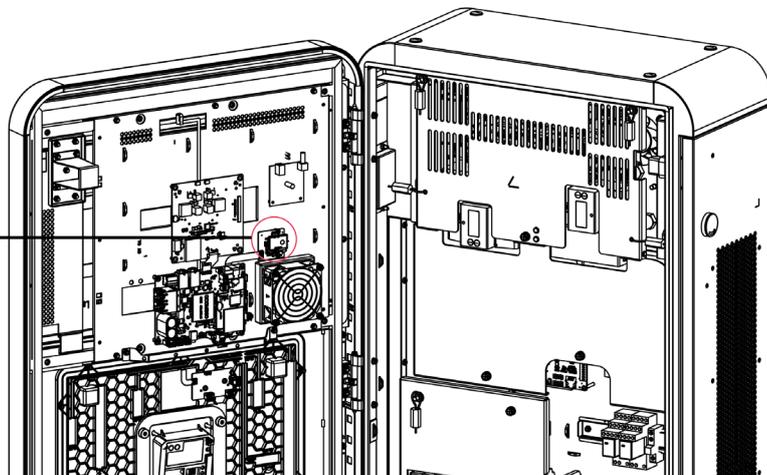
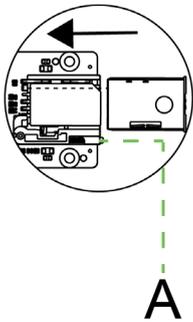
DC50

5.5.2 Cellular Network Connection

1. Press the button (A) and slide the card tray to the right to remove it.
2. Place the SIM card into the tray. Ensure the card is placed correctly.
3. Push the SIM card tray into the slot.



DC40



DC50

5.5.3 Connecting to Wi-Fi

To connect the charging station to Wi-Fi, follow the first four steps in [6.2 Setting the OCPP Parameters](#) to enter the Device Maintenance Screen and tap **Select Network** to choose your local network.

5.6 Finishing Installation



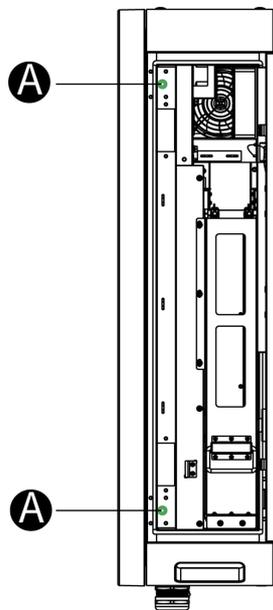
NOTICE

The illustrations in this section take the MaxiCharger DC40 as an example. For the MaxiCharger DC50, refer to the actual product.

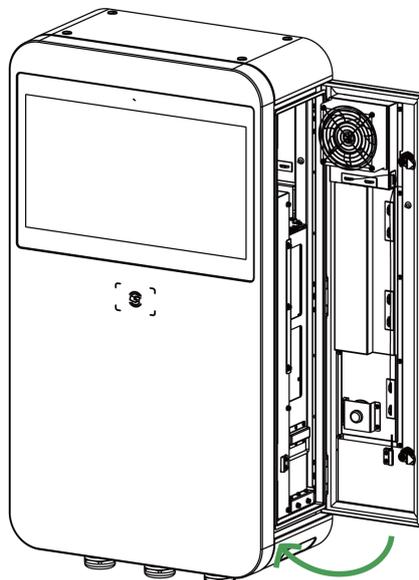
For floor-standing installation:

Step 1

1. Close and lock the front door by tightening the two M8 hex screws (A) using the hex key.



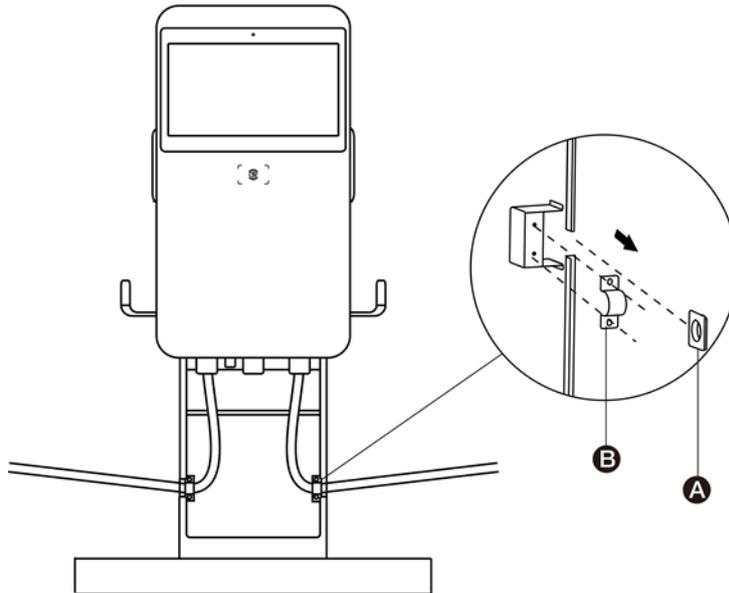
2. Close the side cover and turn the triangle socket key clockwise to lock the side cover.



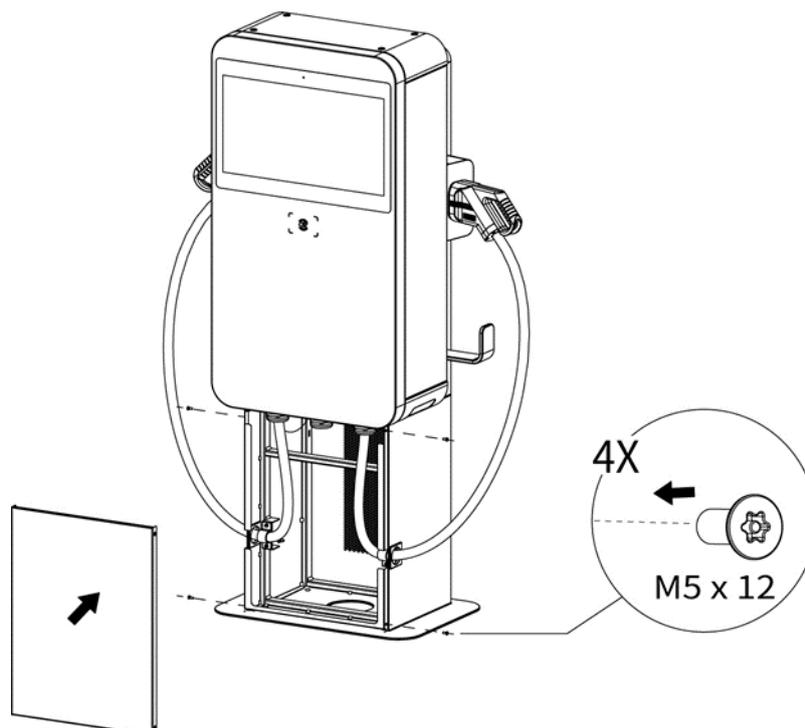
Step 2

Organize the charging cables as described below:

1. Take down the rubber rings (A) from the pedestal and remove the two strain reliefs (B) by unscrewing the four M4 nuts using the Phillips screwdriver.

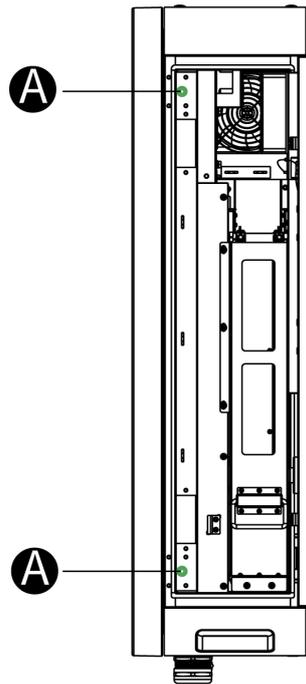


2. Use the strain reliefs to secure the charging cables by screwing the four M4 nuts and tightening them to 1.2 Nm.
3. Reinstall the rubber rings onto the pedestal, running the cables into the rubber rings via the openings. Ensure the charging cables are allowed to remain within its bending tolerance.
4. Drape the cables over the cable holders on both sides of the pedestal and plug the charging handles into the sockets.
5. Reinstall the pedestal's front cover by screwing the four M5 x 12 screws and tightening them to 2 Nm.

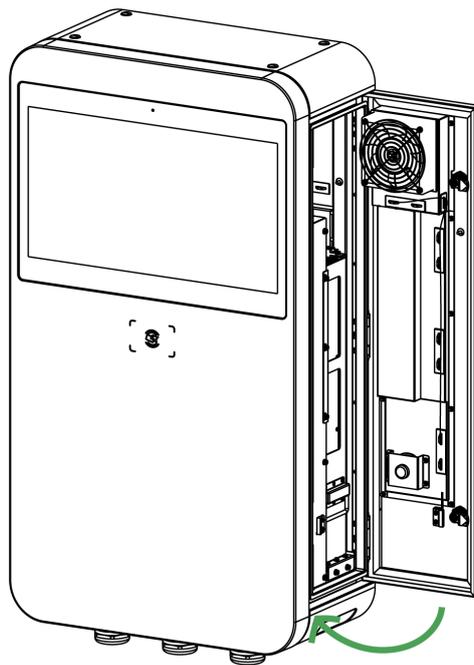


For pedestal-mounted model:

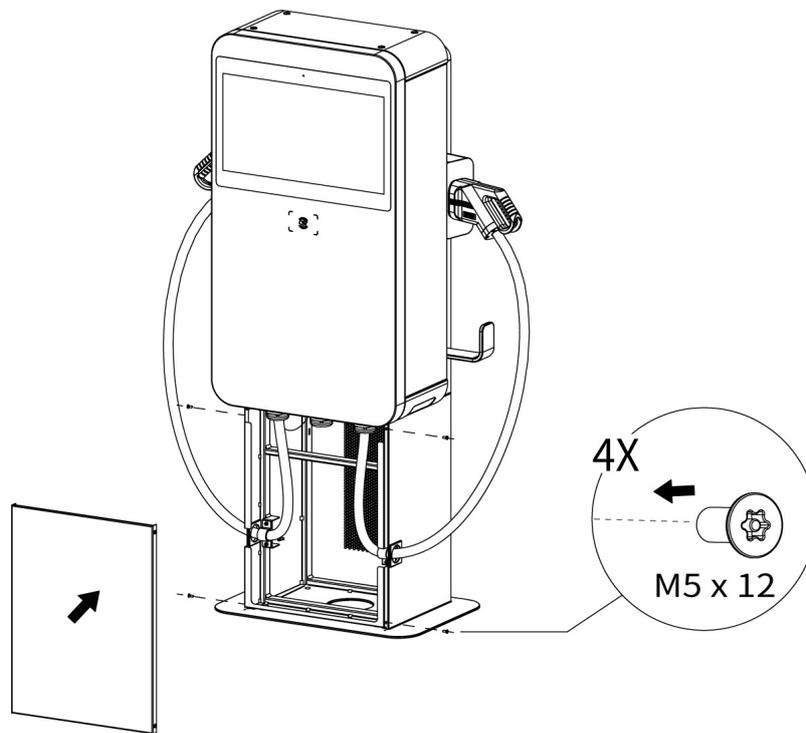
1. Close and lock the front door by tightening the two M8 hex screws (A) using the hex key.



2. Close the side cover and turn the triangle socket key clockwise to lock the side cover.

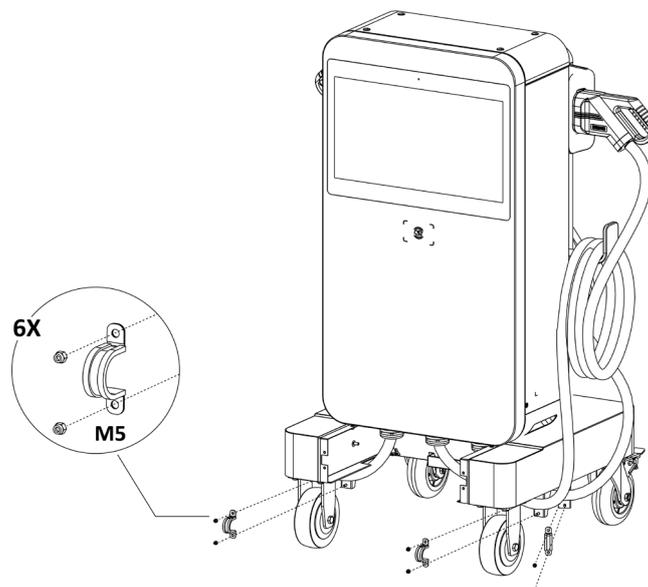


3. Reinstall the pedestal's front cover by screwing the four M5 x 12 screws and tightening them to 2 Nm.



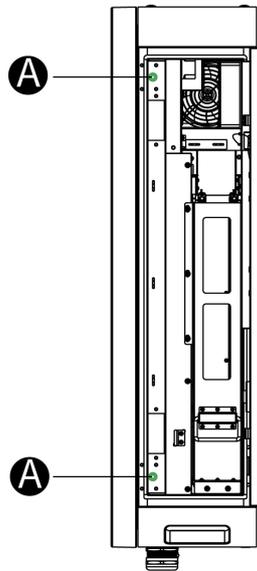
For trolley-standing installation:

1. Use the strain reliefs which have been installed on the trolley to secure the charging cable and AC input cable. Tighten the M5 nuts using an 8 mm socket wrench.

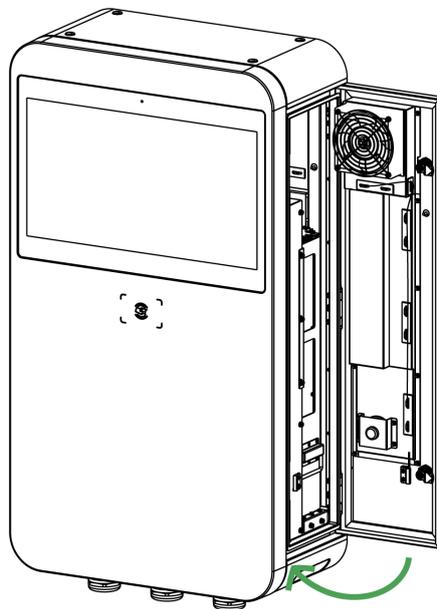


2. Reinstall the front cover of the trolley by inserting and tightening the four M5 x 12 screws.

3. Close and lock the front door by tightening the two M8 hex screws using the hex key.



4. Close the side cover and turn the triangle socket key clockwise to lock the side cover.



5. Drape the charging cables and industrial plug cable on the cable holders on the side and the rear respectively.

5.7 Installing the Upstream Protective Device

Devices	Specifications
Dedicated upstream protection device(s)	<p>Options:</p> <ul style="list-style-type: none">● RCD (Type A) + MCB <p>Determine whether to install the RCD based on the local utility. The MCB must match the power rating of the charging station.</p> <ul style="list-style-type: none">● RCBO (Type A)
Upstream overcurrent protection breaker, such as RCBO or MCB (The breaker serves as the main disconnect switch to the charging station.)	<p>Breaker rating: 100 A</p> <p>Recommended: 100 A, or refer to your local rules for breaker rating.</p> <p>Tripping characteristics: type C</p>
Upstream residual-current device (RCD)	Type A, with a rated residual operation current of 30 mA

6 Commissioning

Power on the charging station after ensuring that both the installation and the wiring are secured and correct.



CAUTION

- Do not touch the components inside the charging station while it is powered on.
- Operate the charging station only when its door is closed and locked.

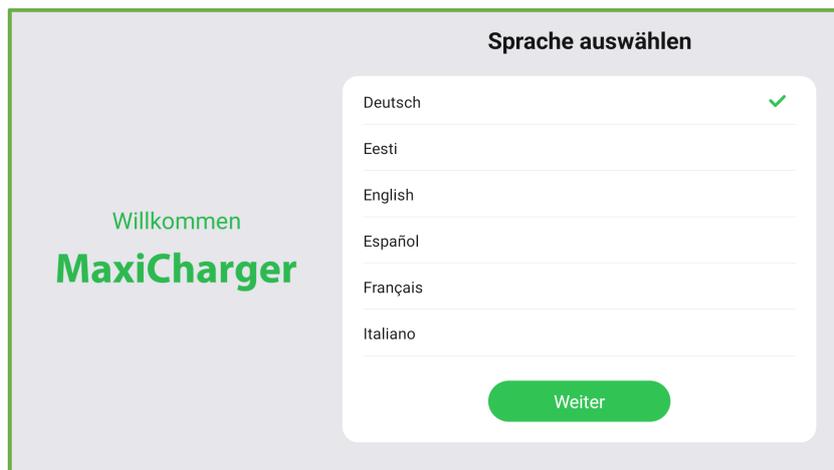


NOTICE

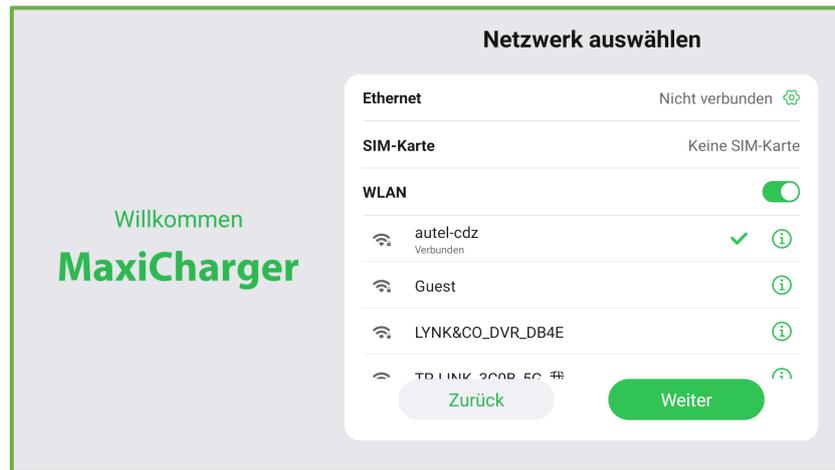
If the ambient temperature is below -20 °C, it may take 3 to 5 minutes for the touchscreen to display after you power on the charging station. In extreme cases, the display module will be reset to ensure the stability of the charging station.

6.1 Initial Settings

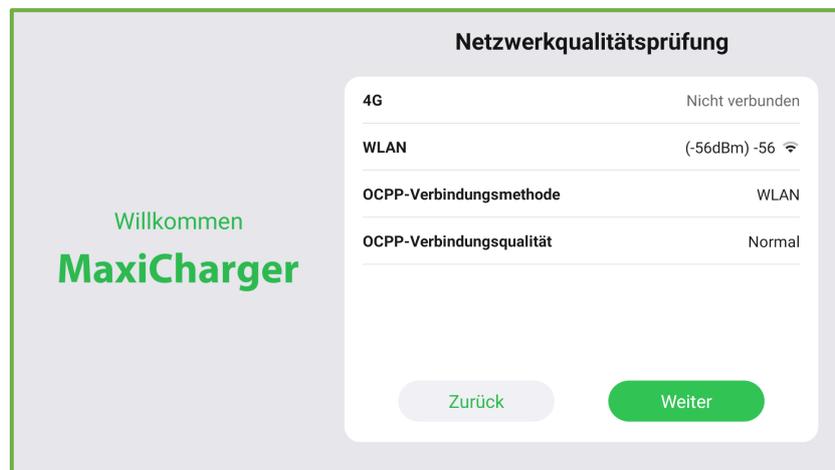
6.1.1 Select Language



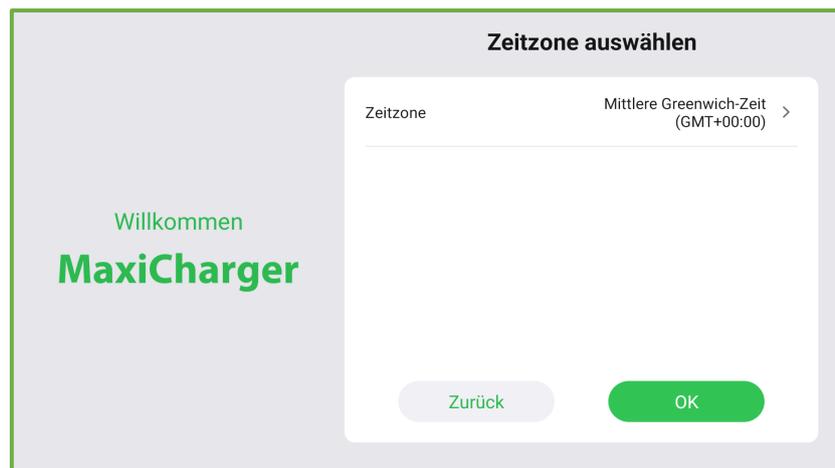
6.1.2 Select Network



6.1.3 Network Quality Check



6.1.4 Select Time Zone



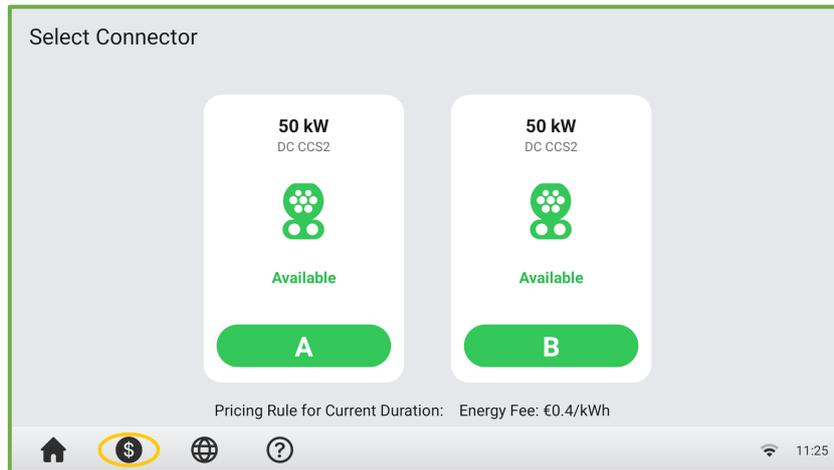
6.2 Setting the OCPP Parameters



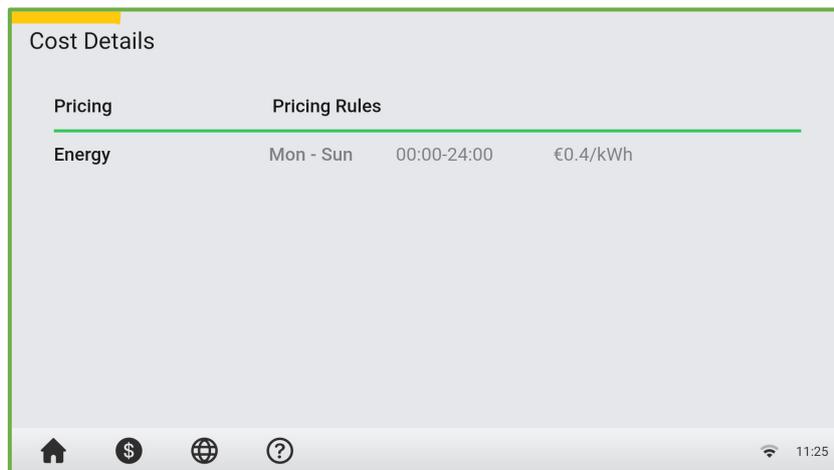
NOTICE

- The OCPP parameter settings should be performed by an installation engineer.
- The screenshots in this section take the MaxiCharger DC50 as an example.

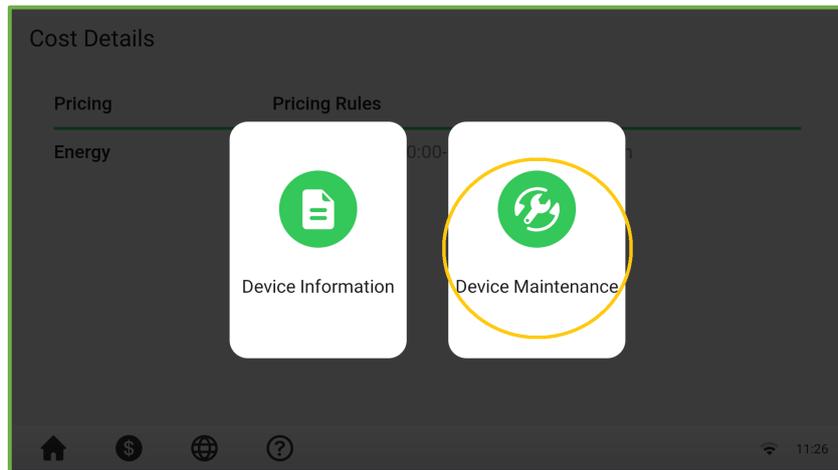
1. On the Standby Screen, tap the “currency (\$)” icon on the lower-left corner to enter the Cost Details Screen.



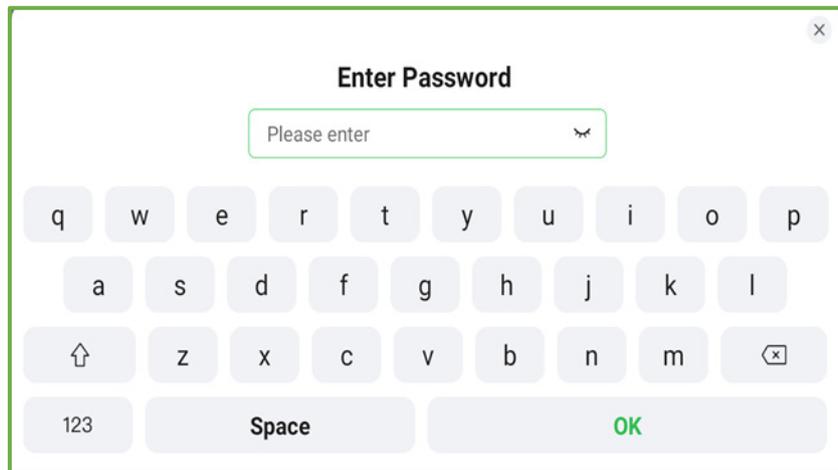
2. On the Cost Details Screen, **double tap** the upper-left corner to proceed.



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



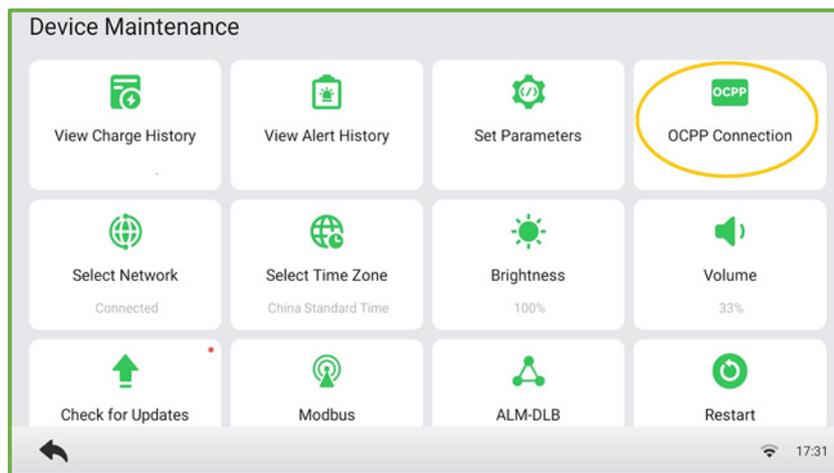
4. A password prompt will appear. Enter **the last 6 characters of the product serial number** to continue, which can be found on the product label. For example, if the product serial number is DE0090B1GNBC00029P, the password is 00029P (The letter “P” is capitalized). If that doesn't work, try using 1234 as the password.



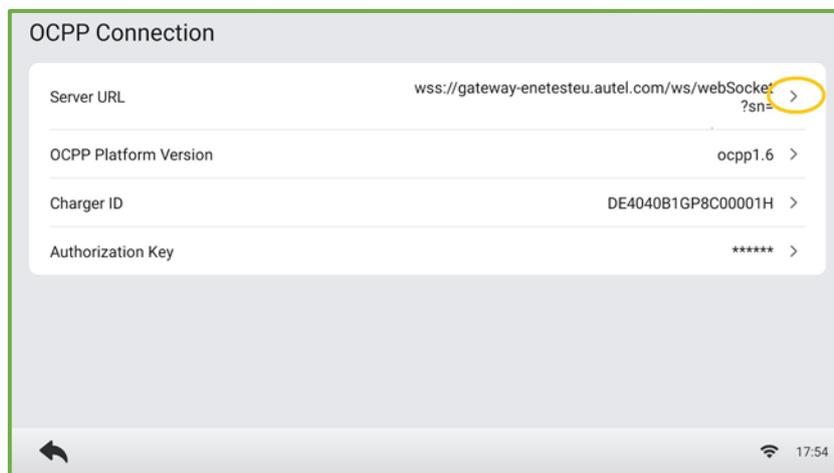
NOTICE

For safety reasons, it is suggested that the password be changed on the Autel charging management platform when the charger is commissioned.

5. On the Device Maintenance Screen, select **OCPP Connection**.



6. Check the Server URL by referring to that provided by the client. If it is not correct, click on “>” to the right of the Server URL to change it.



NOTICE

Make sure that the URL you type is correct and without space.

6.3 Configuring the Cloud Platform

1. Configuring the cloud platform is also needed for the charging station. The charging station supports Autel or a third-party cloud platform. The Autel Charge Cloud, a one-stop charging management solution, is intended to address the needs of many use cases, including commercial use, residential use, governmental use, car dealers, and fleets. Contact Autel technical support for subscription and learn more details in Autel Charge Cloud manual.
2. If a third-party cloud platform is used, contact the personnel from the third-party for configuration.

7 Operation

7.1 Charging Procedure

General charging procedures:

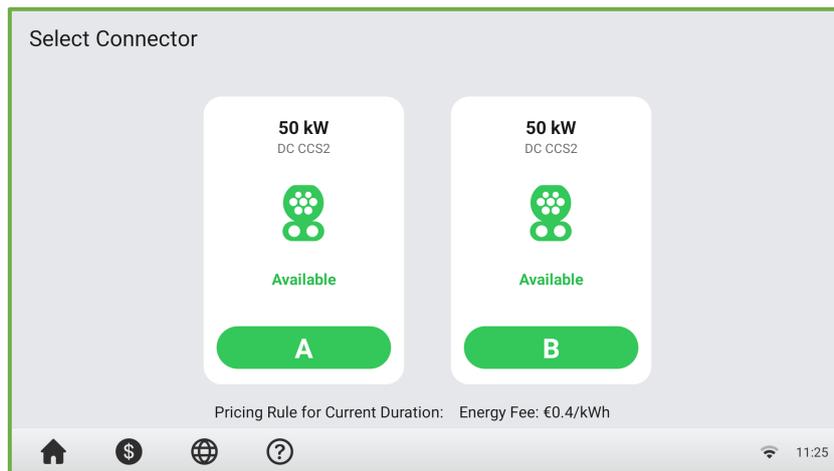
1. Park an EV with the charging port within the reach of the charging handle.
2. Plug in the EV.
3. Start the charging session.
4. Stop the charging session.



WARNING

- Do not cover the vent during charging.
 - Do not clean or operate in the EV during charging.
-

7.1.1 Standby Mode



After a charging handle is successfully connected to your EV, the charging station will automatically recognize the charging handle, and the corresponding charging handle's **Authorization** screen will appear.

If no operation is performed for a long time on the **Authorization** screen, the **Standby** screen will appear. Manually select the appropriate charging handle on the touchscreen.



NOTICE

The screenshot above takes the MaxiCharger DC50 as an example.

7.1.2 Authorization

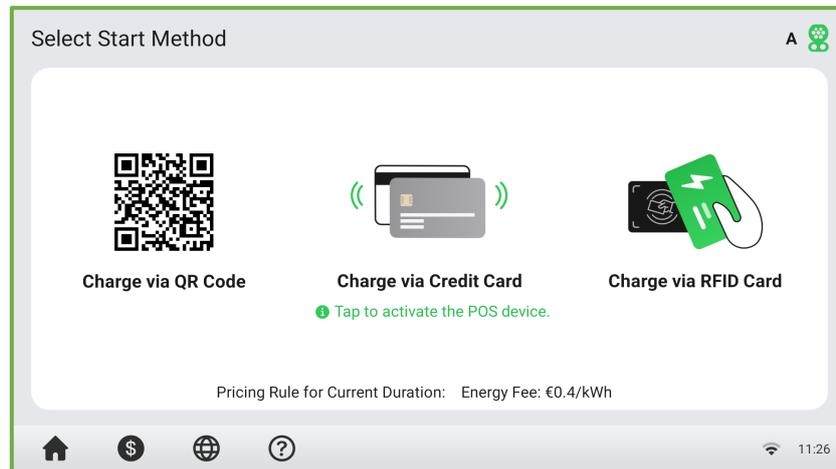
NOTICE



- Before starting a charging session, observe the screen for any abnormalities, such as an error message. Check the surroundings and the charging station for any abnormalities and damage as well.
 - **DO NOT** use the charging station if the screen displays an error message. Contact Autel technical support.
-

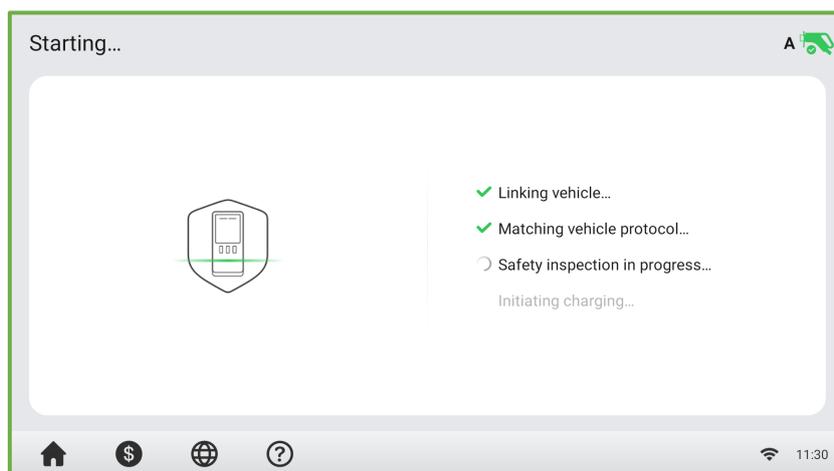
When the **Authorization** screen appears, you can use any of the following methods to start a charging session.

- Scan the QR code on the screen
- RFID card
- Plug & Charge
- Credit card (optional)



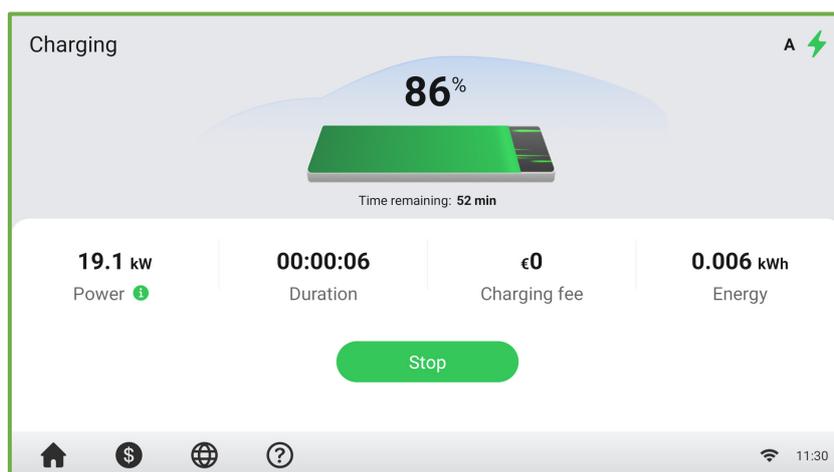
7.1.3 Start Charging

After authorization, the charging station will set up communication with your EV and necessary safety tests will be performed. Following the safety tests, the charging session will start automatically.



7.1.4 Charging

During the charging progress, information on power, duration, cost, and energy will appear on the screen.



7.1.5 Finishing Charging

1. Tap the **Stop** button on the screen.

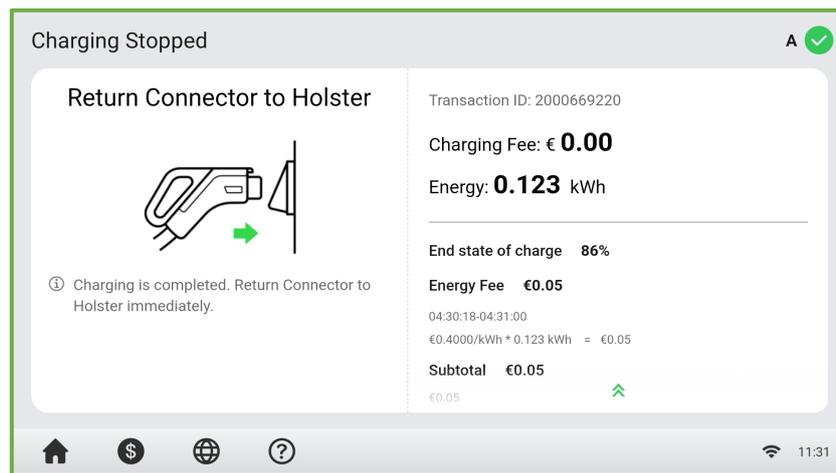


NOTICE

When the battery is full, the charging session will stop automatically.

2. Normally, to finish charging, you have to authorize again using the same method as the first time.
 - QR code: Scan the QR code with the Autel Charge app and tap the **Stop** button on the Charging Screen of the app.
 - RFID card: Put the RFID card on the card reader again to finish charging.
 - Credit card: Finish charging directly.

3. When the charging process ends, the transaction details will appear.



4. Disconnect the EV charging cable from the EV.
5. Return the charging handle to the socket.

7.2 Charging Errors

This section depicts several common problems that may arise during the charging session, along with possible causes/solutions to help you resolve them. If the problems persist, contact your local dealer or Autel technical support.

7.2.1 Connector Connection Error

If the connector is not properly connected to your EV, the Connector Not Connected screen will appear. Insert the connector into your EV's charge port and check the connection.

7.2.2 Authorization Failure

If an error occurs when the authorization process starts but your EV does not start charging, the Authorization Failure screen will appear. The cause and possible solution(s) will display on the screen. Follow the on-screen instructions to resolve the problem, or contact your local dealer or Autel technical support.

7.2.3 Charging Start Failure

If an error occurs when you start charging, the Charge Start Failure screen will appear. The cause and possible solution(s) will display on the screen. Follow the on-screen instructions to resolve the problem.

7.2.4 Charging Failure

If an error occurs during the charging process, the Charging Failure screen will appear. The cause and possible solution(s) will display on the screen. Follow the on-screen instructions to resolve the problem, or contact your local dealer or Autel technical support.

7.3 Emergency Stop Response

After detecting emergency stop signal sent from the EV during the charging process, the charging station will immediately stop DC output. As a result, the voltage and current will be dramatically reduced to 60 V and 5 A in 30ms. The DC output contactor will also be disconnected. After the charging session is finished, the charging station will return to normal.

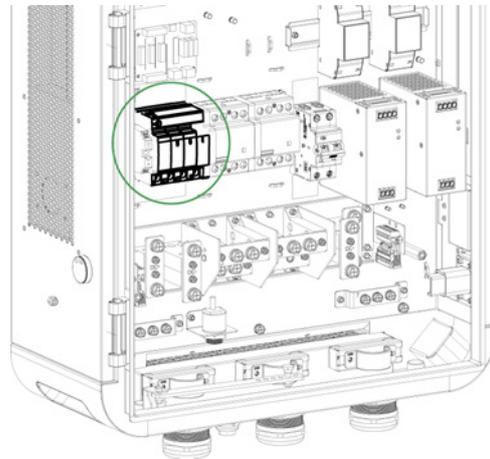
7.4 Powering down the Charging Station

1. Set the upstream breaker which provides power for the charging station to **OFF** and lock it. Make sure that this breaker stays in the **OFF** position during the procedure.
2. Open the front door.
3. Measure the AC voltage by referring to [7.4.1 Measuring the AC Voltage](#). Make sure that all the measured voltages are 0 volt.
4. Measure the DC voltage by referring to [7.4.2 Measuring the DC Voltage](#). Make sure that all the measured voltages are 0 volt.
5. Close the front door.

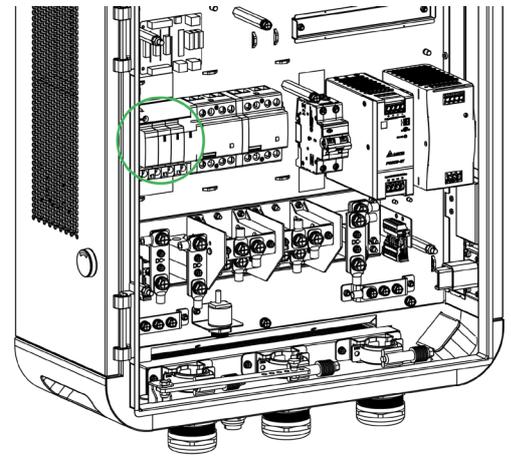
7.4.1 Measuring the AC Voltage

Use a voltage tester to measure the AC voltage between the terminals on the surge protection device switch:

- L1 to L2
- L1 to L3
- L2 to L3
- Neutral to L1/L2/L3



DC40



DC50



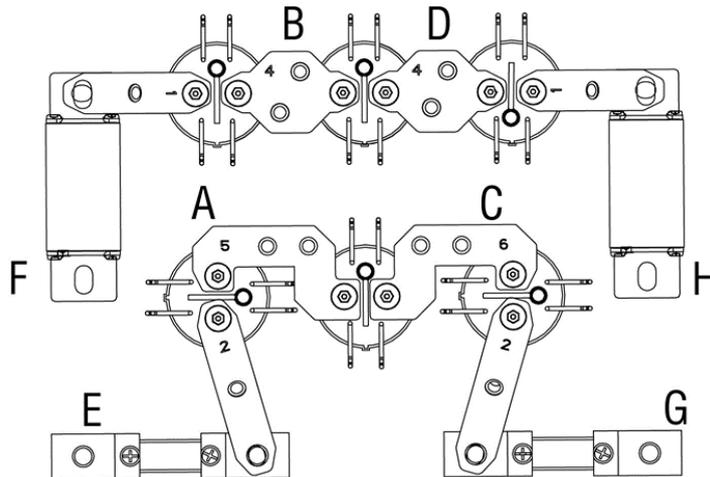
NOTICE

The surge protection device switch shows the indications N, L1, L2, and L3.

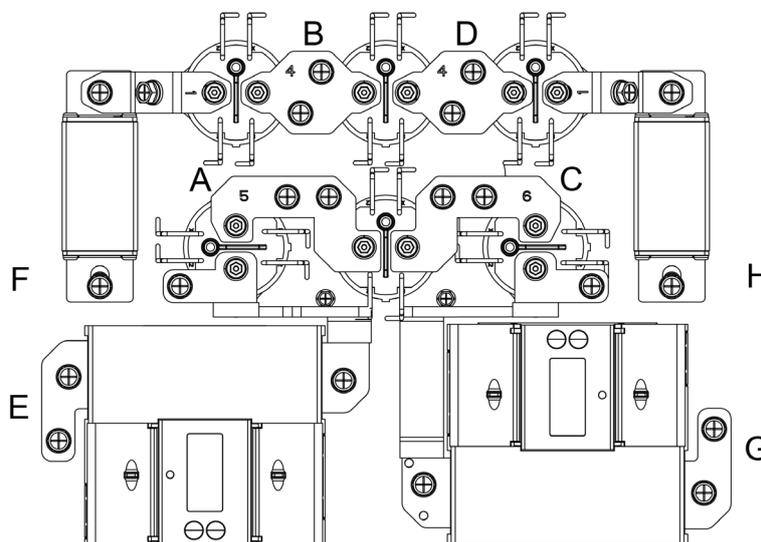
7.4.2 Measuring the DC Voltage

Use a voltage tester to measure the DC voltage between the output terminals, making sure that all the measured voltages are 0 volt.

- Power module group output 1- (A) to power module group output 1+ (B)
- Power module group output 2 - (C) to power module group output 2+ (D)
- EV charging cable 1 output - (E) to EV charging cable 1 output + (F)
- EV charging cable 2 output - (G) to EV charging cable 2 output + (H)



DC40



DC50

8 Maintenance

8.1 Routine Maintenance

Routine maintenance can keep the charging station in a safe and stable state.

- Clean the charging station every quarter, tighten the screws and bolts of key parts, and check whether the wire connection of the charging station's connector is burned out. If any abnormality is found, replace the parts promptly.
- Clean the filter at least twice a year.
- Test the residual current breaker with overload once a year.

WARNING



- Disconnect the power supply to the charging station during the entire maintenance procedure.
- Make sure that unauthorized personnel are kept at a safe distance during the maintenance procedure.
- Wear proper personal protective equipment, such as protective clothing, safety gloves, safety shoes, and safety glasses.
- If you remove the safety devices for maintenance, reinstall them after completing the work.

8.1.1 Residual Current Breaker with Overload Maintenance



WARNING

Be careful when you work with electricity.

The internal residual current breaker with overload (RCBO) should be tested annually for correct functioning. Before testing, disconnect the charging station from the EV and stop any charging processes.

➤ **To test the RCBO**

1. Open the front door of the charging station. When the cabinet door is open, the charging station should not be exposed to a rainy environment directly.
2. The charging station must be in Standby mode. Tapping the touchscreen will wake up the charging station.
3. Locate the RCBO, and press the **Test** button to start the test.
 - Pass: The RCBO will trip and restore the **Test** button to its original position.
 - Fail: The RCBO does not trip. Please contact Autel technical support. Do not use the charging station until the repair is completed.

4. Close the front door after the test is finished.
5. Mark the time when you need to repeat the test.

8.1.2 Cleaning the Charging Station

The charging station is powder-coated. The coating must be kept in a good condition. When the charging station is in a corrosion sensitive environment, superficial rust may appear on welding points. Visible rust has no risk to the integrity of the charging station.

To remove rust:

1. Stop any charging processes and power off the charging station.
2. Remove rough dirt by spraying with low-pressure tap water.
3. Apply a neutral or weak alkaline cleaning solution and let it soak.
4. Remove dirt by hand with a damp and non-woven nylon cleaning pad.
5. Rinse thoroughly with tap water.
6. Apply wax or a rust-preventive primer for extra protection if needed.

WARNING



- Before cleaning, stop any charging processes and do not connect the power to the charging station. Failure to do so may cause damage and/or personal injury or death.
 - Do not apply high-pressure water jets and avoid water ingress into the charging station. Make sure that the inside of the charging station is dry during cleaning.
 - Do not use caustic solvents, sprays, or abrasives. Use cleaning agents with a pH between 6 and 8 for strong stains only.
-

8.1.3 Cleaning and Replacing the Filter

WARNING

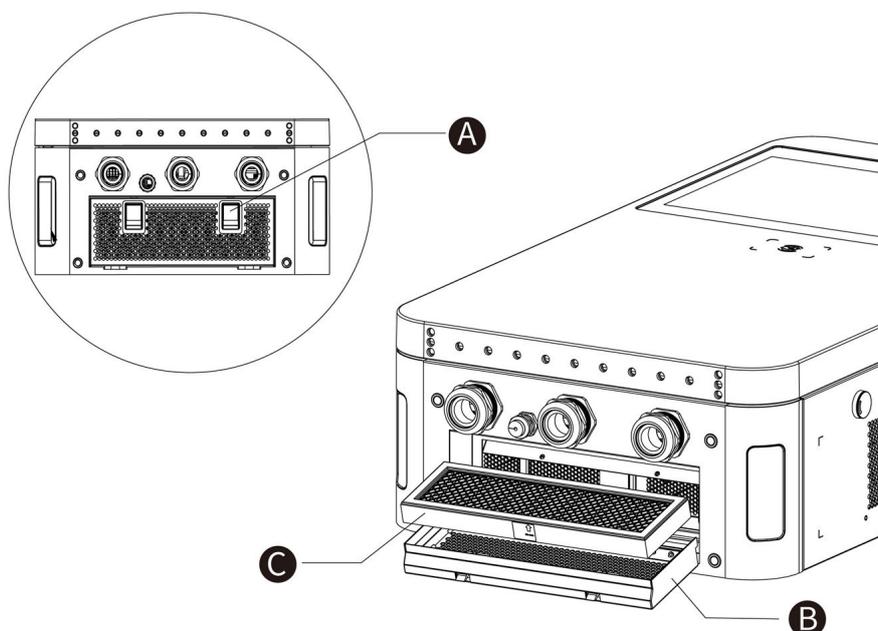


- Before cleaning, stop any charging processes and do not connect the power to the charging station. Failure to do so may cause damage and/or personal injury or death.
- Do not apply high-pressure water jets and avoid water leaking into the charging station. Make sure that the inside of the charging station is dry during cleaning.
- Do not use caustic solvents, sprays, solvents or abrasives.

The charging station is equipped with a filter with a large mesh area to prevent the electronic components from being damaged by dust. Clean the filter every 3 months (not exceeding 6 months). Replace the filter annually.

To clean or replace the filter:

1. Before cleaning or replacing, make sure to stop all charging processes and disconnect the external power supply.
2. Open the two toggle latches (A) at the bottom of the charging station to flip the bezel (B) downwards.
3. Remove the filter (C).
4. Clean debris or dust off the filter and reinstall the cleaned filter. Or install a new air filter.
5. Flip the bezel upwards and close the two toggle latches.



8-1 Removing Filter

8.2 Inspection and Maintenance

When the charging station operates normally, only routine maintenance is needed.

When the charging station operates abnormally, refer to [9.1 Troubleshooting](#) to resolve the problem or contact your local dealer or Autel technical support promptly.

When parts need to be replaced, cut off the upstream power supply and the power supply inside the equipment before operating.

Regularly conduct a visual inspection of the following items:

- Cable and charging handle: Check for cracks or ruptures on the charging handle.
- Display: Check for damage and cracks. Check whether the touchscreen works.
- Charging station coating: Check for damage, cracks or ruptures.
- Charging station: Check for rust or damage.

The following special inspections are needed for safe use:

- Check if the charging station was struck by lightning.
- Check if the charging station was damaged due to an accident or fire.
- Check if the installation site was flooded.



WARNING

Stop any charging processes and do not connect the power to the charging station until all the inspections are completed.

8.3 Remote Maintenance

The charging station can connect to the Autel cloud platform to monitor parameters in real time. Autel cloud platform provides remote upgrades, diagnosis, and services, and identifies any issue during operation process.

- Daily system self-check for abnormality.
- If there is abnormality with the operation, contact your local dealer or Autel technical support promptly.

Autel service engineers can check logs, update configurations and programs, and provide remote maintenance services, such as remote management, diagnosis, configuration, and upgrades.

8.4 Maintenance Schedule

Item	Frequency	Actions
Charging Handle	Every 3 months	Check for cracks or ruptures.
Input Cable	Every 3 months	Check for cracks or ruptures on the cable.
Filter	Annually	Replace the filter.
Charging Station	Every 3 months	Clean and check for damage.

9 Troubleshooting and Service

9.1 Troubleshooting

The table below describes the most common faults during the operation process of the charging station. Contact Autel technical support if the fault encountered is not in this table.

Error	Error Code	Possible Cause	Solution
CP voltage abnormal	0x2037	It may be caused by signal interference, poor contact or software errors.	Perform remote restart or reset. If the fault persists, contact Autel technical support.
Communication error with the entire charging module group	0x3011	There is a problem with the module's address setting.	Power off the charging station and restart it.
Overvoltage	0x202D	The DC output voltage is above the upper limit of the vehicle or the rated voltage of the charging station during charging.	Stop the charge session and contact Autel technical support.
Communication error with the power control module	0x200E	The CCU does not receive messages from the ECU and the communication is timed out.	Perform remote restart or reset. If the fault persists, contact Autel technical support.
BMS communication error	0x2007	It may be caused by charging incompatibility.	Perform remote restart or reset. If the fault persists, contact Autel technical support.
Cooling fan abnormality	0x304A	Fan aged or damaged.	Power off the charging station and contact Autel technical support for repair or replacement of the fan.
Charging port electronic locking fault	0x2002	It might be caused by a vehicle-related fault.	Contact the vehicle manufacturer and Autel technical support.
CCU auxiliary power supply shutdown	0x202C	Sever power fault due to aged key components or lines.	Power off the charging station. Then locate the faulty component or line and contact Autel technical support for its repair or replacement.

Error	Error Code	Possible Cause	Solution
Meter communication error	0x0001	Aged meter or line.	Stop the charge session and contact Autel technical support.
Insulation monitoring fault	0x2003	If it appears from time to time, it might be due to the vehicle or software error; if it appears frequently, there may be an aged key component.	Perform remote restart or reset. If the fault persists, contact Autel technical support.
AC contactor stuck	0x3008	AC contactor fault or line aging	Power off the charging station and contact Autel technical support.
FPGA fault	0x3010	Controller fault	Stop the charge session, power off the charging station, and contact Autel technical support.
CCU current sampling and module output current accumulation fault	0x3014	Charging module output or sampling fault	Perform remote restart or reset. If the fault persists, contact Autel technical support.
Power distribution contactor sticking (charging possible)	0x3047	Contact or sensor fault or line aging	Power off the charging station immediately and contact Autel technical support.
Communication error on one charging module	0x3051	Abnormal charging module	Contact Autel technical support to identify the fault, and then clear the fault or replace the module.
Fan fault with one charging module	0x305A	Abnormal charging module	Contact Autel technical support to identify the fault, and then clear the fault or replace the module.
Inconsistent CCU voltage sampling and the module output voltage	0x305C	Abnormal charging module	Contact Autel technical support to identify the fault, and then clear the fault or replace the module.

Error	Error Code	Possible Cause	Solution
Insulation detection alert	0x2040	If it is a one-time problem, there is may be a falling object, and no operation is required; if it has occurred for several times, the connector cable may be damaged or there are foreign objects in the busbar.	Power off the charging station immediately and contact Autel technical support.
Charging station offline	0x9001	Communication error between gateway and the Autel Charge Cloud	Check the network connection and OCPP configurations.

9.2 Service

If you cannot find solutions to your problems with the aid from the table above, please contact Autel technical support.

AUTEL Europe

- **Phone:** +49(0)89 540299608 (Monday–Friday, 9:00 AM–6:00 PM Berlin Time)
- **Email:** evsupport.eu@autel.com
- **Address:** Landsberger Str. 408, 4. OG, 81241 Munich, Germany
- **Web:** www.autelenergy.eu

10 Specifications

10.1 Technical Specifications

Product Information	
Power Rating	40 kW, max. 47 kW or 40 kW, max. 50 kW
Charging Type	Mode 4
Rated/Max. Input AC Current	75 A/82 A or 80 A/88 A
Input Voltage Range	400 VAC \pm 10% @50 Hz or 400 VAC \pm 10% @50/60 Hz
Input Frequency	50 Hz or 50/60 Hz
AC Input Connection	3P + N + PE
Cable Length	5.5 m/7.5 m (optional)*
Overvoltage Category	AC side (Input) OVC: III
Power Factor (>50% Load)	\geq 0.99
DC Output Voltage	CCS2: 150 to 950 VDC
Outlet A+B	CCS2 + CCS2 (charging for 2 EVs concurrently)
Peak Efficiency	\geq 96%
Energy Metering	Accuracy: 2%
Total Harmonic Distortion (>50% Load)	\leq 5%
Standby Power	40 W
Network Type	TN-S, TN-C, TN-C-S, TT (Requires an external RCD)
Cellular Communication	GSM, 4G, LTE

Protection	Overcurrent, overvoltage, under-voltage, ground fault, over-temperature, short circuit, insulation monitor, surge protection
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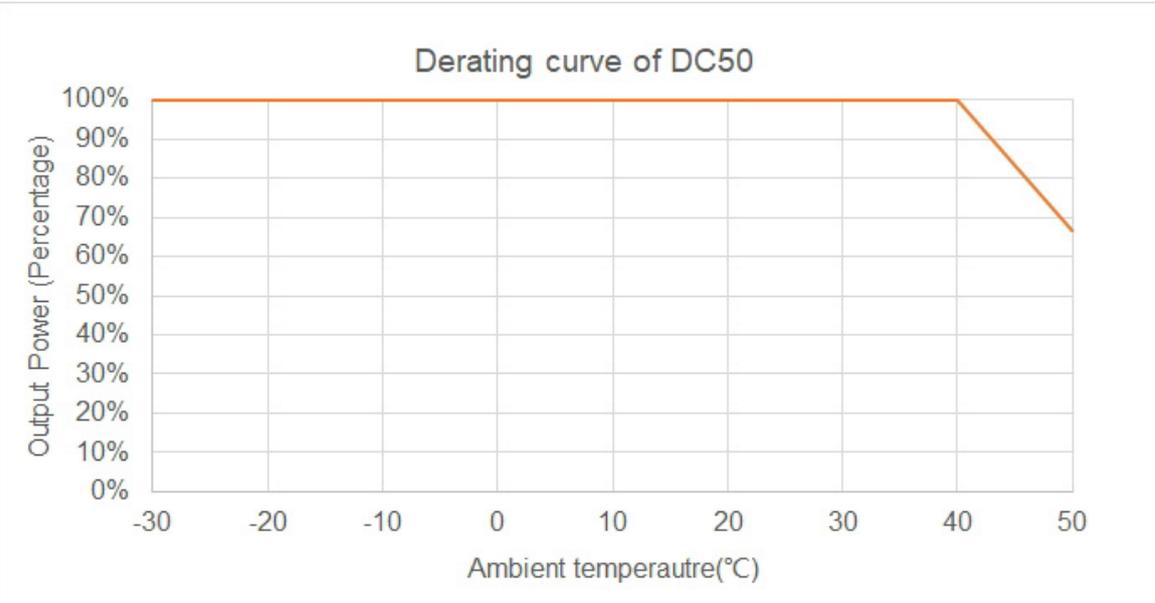
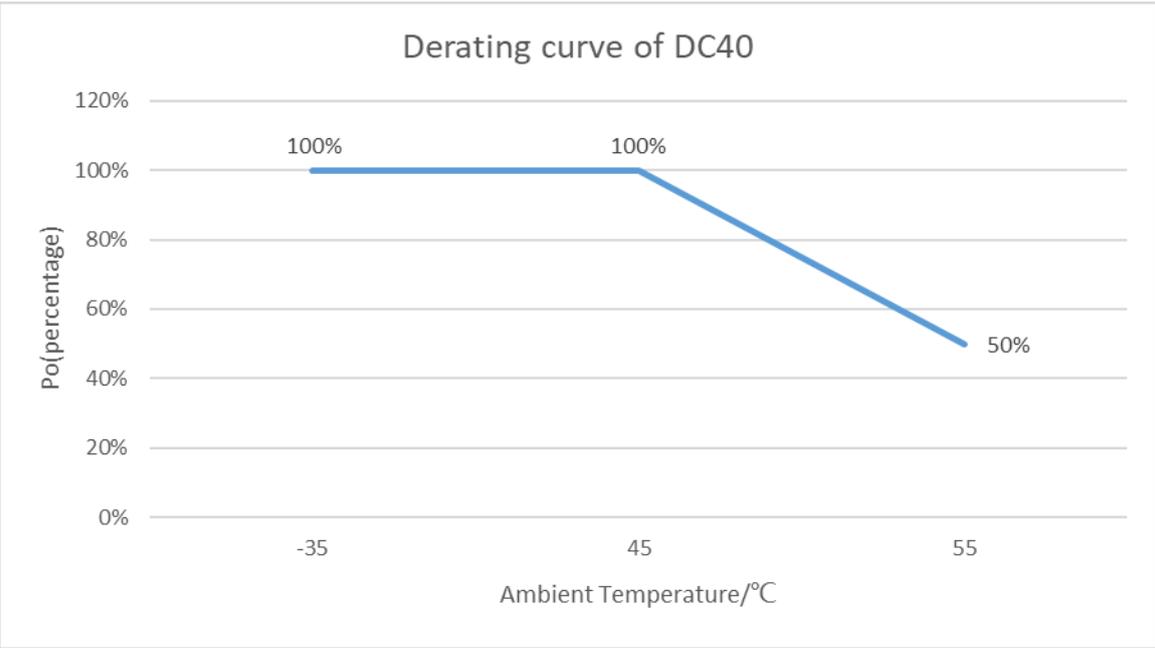
* For floor-standing or trolley-standing models: 5.5 m/7.5m

For pedestal-mounted or trolley mounted models: 5 m/7 m

General Characteristics	
Enclosure Rating	IP54
Operating Altitude	< 2000 m (2000 m to 3000 m with power de-rating)
Operating Temperature Range	-30 °C to +55 °C (+45 °C to +55 °C with linear power de-rating) or -30 °C to +50 °C (+40 °C to +50 °C with linear power de-rating)
Storage Temperature Range	-40 °C to +70 °C
Mounting	Pedestal mounted
Weight	120 kg
Noise Level	< 65 dB @ 1 m/25 °C/full load
Humidity	< 95 % RH (non-condensing)
Dimensions (W x D x H)	550 x 265 x 1000 mm
User Interface	
Display	21.5-inch LCD touchscreen
Status Indication	LED/APP/Touchscreen
User Interface	Autel Charge APP Autel Charge Cloud
Communications Protocols	OCPP 1.6 JSON OCPP 2.0.1 (optional)

Connectivity	Wi-Fi Ethernet CAN RS485 Cellular Network
User Authentication	QR Code RFID Plug & Charge Credit Card (optional)
Wheelchair Accessibility	Yes
RFID Reader	ISO 14443 A + B to part 4 and ISO/IEC 15693 Mifare NFC
Software Update	
Software Update	OTA updates via web portal
Certification and Standards	
EMC Compliance	Class A
Charging System	IEC 61851-1 IEC 61851-23 IEC 61851-21-2
Communication to the EV	ISO 15118 DIN 70121
Certification	CE UKCA (only for the MaxiCharger DC40) RCM (only for the MaxiCharger DC40) REA-Dokument 6-A/PTB-A 50.7/PTB-A 50.8
Warranty	Base warranty 24 months after site acceptance test or 30 months after factory delivery. Warranty extensions possible.

10.2 Derating Curve



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