



# Serie DC 30K CORE User Manual



## General instructions

This manual contains important safety precautions that must be followed and adhered to when installing and maintaining the equipment.

## Keep these instructions!

This manual should be considered an integral part of the equipment and should be available at all times to anyone who interacts with such equipment. The manual must always accompany the equipment, even when it is transferred to another user or transferred to another plant.

## Copyright Statement

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## Technical support

ZCS offers a technical assistance service accessible by sending a request directly from the [www.zcsazzurro.com website](http://www.zcsazzurro.com)

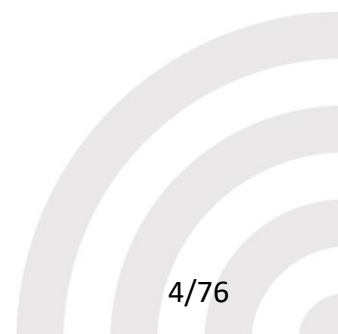
For the Italian territory, the following toll-free number is available: 800 72 74 64.

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## Foreword

### General information

Please read this manual carefully before proceeding with installation, use or maintenance. This manual contains important safety precautions that must be followed and adhered to when installing and maintaining the equipment.

### Scope

This manual describes the assembly, installation, electrical connections, commissioning, maintenance and troubleshooting of the charging station:





Keep this manual so that it can be accessed at all times.

### Recipients

This manual is intended for qualified technical personnel (installers, technicians, electricians, service personnel, or anyone qualified and certified to operate an electrical system) who are responsible for installing and starting the charging station.

### Symbols used

This manual provides information on how to intervene safely using certain symbols to ensure the safety of personnel and materials, as well as to ensure efficient use of the equipment during normal operation. It is important to understand this information to avoid injury and property damage. Read the symbols below and used in this manual.

	<b>Hazard:</b> Indicates a hazardous situation that, if not addressed or avoided, could result in serious personal injury or even death
<b>Danger</b>	
	<b>Warning:</b> Indicates a hazardous situation which, if not corrected or avoided, could result in serious personal injury or even death
<b>Warning</b>	
	<b>Caution:</b> Indicates a hazardous situation that, if not addressed or avoided, could result in minor or moderate personal injury
<b>Caution</b>	
	<b>Caution:</b> indicates a potentially hazardous situation which, if not resolved or avoided, could result in damage to the system or other property damage
<b>Attention</b>	



Note

**Note: Provides important tips for the correct and optimal operation of the product**

# 1. Preliminary Safety Instructions



If you have problems or doubts in reading and understanding the following information, please contact Zucchetti Centro Sistemi S.p.A. through the appropriate channels.

Note

## 1.1. Safety Instructions

It mainly introduces the safety instructions to be followed when installing and using the equipment. Before installing and using the equipment, read and understand the instructions in this manual and familiarize yourself with the relevant safety symbols illustrated in this chapter. In accordance with national and local requirements, you must obtain permission from your local supplier before making the connection to the mains supply, ensuring that the connections are made by a qualified electrician. All installation work must be carried out by a qualified and competent electrician. For any repairs or maintenance, contact your nearest authorized service center. For information on the nearest authorized service center, contact your distributor. **DO NOT** carry out repairs yourself, as this may cause accidents or damage.

### Qualified personnel

Ensure that the operator has the necessary skills and training to operate the equipment. Personnel responsible for the use and maintenance of the equipment must be qualified and able to perform the tasks described and must also have adequate knowledge of how to correctly interpret the contents of this manual. For safety reasons, this charging station may only be installed and maintained by a qualified electrician who has the necessary training, skills and knowledge. Zucchetti Centro Sistemi S.p.A. declines all responsibility for damage to property and persons caused by incorrect use of the device.

Do not attempt to repair or replace any part of the charging station in any way without the assistance of qualified personnel.

### Installation Requirements

Install and start the charging station according to the following instructions. Place the charging station on suitable supports with sufficient load capacity (e.g. metal walls or columns) and make sure that it is positioned vertically. Choose a suitable location for the installation of electrical equipment. Make sure there is enough space for heat dissipation and future maintenance. Maintain adequate ventilation and ensure sufficient air circulation for cooling.

The screen of the charging station must not be directly exposed to sunlight.

Follow the instructions in this manual carefully.

Carry out any maintenance only as an installation technician or use the charging station only if fully qualified to do so.

Comply with the instructions in this manual and any applicable local regulations. If local regulations contravene the instructions in this manual, local regulations will apply. In the event of any conflict or contradiction between the requirements or procedures contained in this manual and local laws and/or regulations, please follow the laws and/or regulations and the requirements and processes defined in this manual and to the extent permitted by law.

Before carrying out the work, identify hazards and carry out a risk assessment arising from the work circumstances on the site.

Ensure that all protective devices are properly installed after installation.

Ensure that all employees, the owner and any third parties are qualified to perform the work in accordance with applicable local laws and/or regulations.

Make sure there is enough space around the charging station to safely carry out maintenance and installation work.

The qualified installation technician must be fully familiar with the charging station and its safe installation.

The installation technician must be qualified to carry out the work in accordance with the Applicable local regulations.

The qualified installation technician must follow all local codes and installation methods outlined in this manual.

Make sure that there is no voltage on the AC input side during the installation procedure.

Keep unqualified personnel at a safe distance from the installation.

Use only electrical cables with adequate diameter and insulation to handle the current and voltage rated demand.

Make sure that the load capacity of the network matches that of the charging station.

Make sure that the wiring inside the charging station is not damaged and cannot be trapped when the locker is opened or closed.

Make sure that no water gets inside the cabinet.

Protect the charging station with the device and the protection procedures specified by local regulations.

If you need to remove the safety devices, put them back in place as soon as possible after the work is complete.



Wear the appropriate personal protective equipment (PPE).






Do not use the charging station and contact the manufacturer promptly if the safety or safe use of the charging station is compromised. This includes, but is not limited to, the following conditions: the casing is damaged, the charging cable or connector is damaged, lightning has struck the charging station, an accident or fire has occurred on or near the charging station, water has penetrated the charging station.




Make sure the charging station is connected to a permanent, metallic, grounded wiring system; Otherwise, an earthing conductor of the device must be laid together with the circuit conductors and connected to the earthing terminal of the device.



Ensure that connections to the charging station comply with all applicable local regulations.

You are not allowed to use adapters or converters.

Extension cord sets are not permitted.

 <b>Danger</b>	<p><b>Do not place flammable, explosive or combustible materials, chemicals, flammable vapours and other hazardous elements near the charging station.</b></p>
 <b>Danger</b>	<p><b>Keep the charging connector clean and dry. If it is dirty, wipe it with a clean dry cloth. It is strictly forbidden to touch the core of the charging connector with your hands.</b></p>
 <b>Danger</b>	<p><b>It is strictly forbidden to use the charging station when the charging connector or charging cable is defective, broken, worn, broken or exposed. Contact after-sales service in a timely manner.</b></p>
 <b>Danger</b>	<p><b>Do not attempt to disassemble, repair, or modify the charging station. If there is any need for maintenance or modifications, please contact the after-sales service. Improper operation can cause damage to the device, water leakage, electrical leakage, etc.</b></p>
 <b>Danger</b>	<p><b>For the safety of people and vehicles, it is strictly forbidden to remove the charging connector during the charging process.</b></p> <p><b>If any abnormality occurs during use, press the emergency button immediately to cut off the incoming and outgoing power.</b></p>

	<p>In the event of flooding, do not activate the charging station while it or the vehicle is submerged in water.</p>
<p><b>Danger</b></p>	
	<p>Children should not approach or use the charging station to avoid injury.</p>
<p><b>Danger</b></p>	
	<p>During the charging process, the vehicle's engine must always remain switched off and it is strictly forbidden to start it.</p>
<p><b>Danger</b></p>	

	<p>The input and output voltages of this product are dangerous high voltages, which may compromise the safety of human life. Strictly adhere to all warnings and operating instructions on the product and in the manual. Unauthorised and unprofessional service personnel should not remove the cover of this product.</p>	
<p><b>Warning</b></p>		<p><b>Warning</b></p>

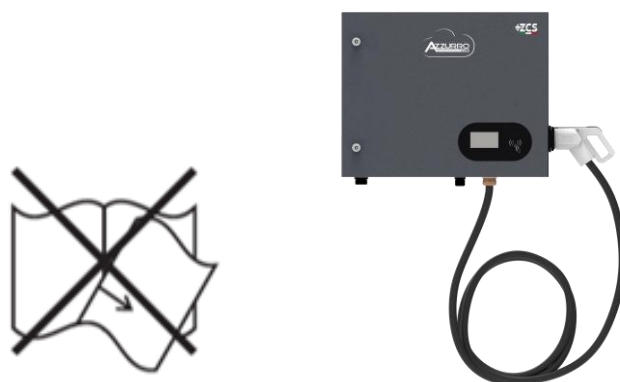






Figure 1 – Do not lose or damage this manual

## Transportation Requirements

If you encounter any problems with the packaging that could damage the charging station or if you detect any visible damage, please notify the transport company immediately. If necessary, request assistance from an installer or from Zucchetti Centro Sistemi S.p.A. The transport of the device, in particular by road, must be carried out with vehicles suitable for protecting the components (in particular, electronic components) from violent shocks, humidity, vibrations, etc.


## Electrical connections



Follow all electrical industry regulations on accident prevention.

	<p><b>Before connecting the electrical cables, be sure to properly disconnect the voltage on the AC connection cables and do not connect any EV charging cables.</b></p>
<b>Danger</b>	
	<p><b>All installation operations must be carried out by a professional electrician who has read this manual carefully and understands its contents!</b></p>
<b>Warning</b>	
	<p><b>Before connecting the charging station to the mains, make sure that you have obtained all the necessary permits from your local grid operator and that all electrical connections have been made by a professional electrician.</b></p>
<b>Attention</b>	
	<p><b>Do not remove or tamper with the information plates of the charging station. Otherwise, ZCS will not provide any warranty or assistance.</b></p>
<b>Note</b>	

## Operation



Do not use the product if it has any defects, breaks, scratches or leaks, but contact your dealer or ZCS technical service

	<p><b>Coming into contact with the mains power supply or the terminal of the device may cause electric shock or fire!</b></p> <ul style="list-style-type: none"> <li>1. Do not touch the terminal or conductor connected to the mains.</li> <li>• Follow all instructions and safety rules regarding connection to the network.</li> </ul>
<b>Danger</b>	

	<p><b>Se la stazione di carica non funziona correttamente:</b></p> <ul style="list-style-type: none"> <li>• Scollegare l'alimentazione in ingresso e in uscita</li> </ul>
<b>Warning</b>	
	<p><b>Take extra care when charging during a thunderstorm or in the rain</b></p>
<b>Attention</b>	






## Maintenance and repair

Keep the charging station clean and dry; If you need to clean it, use a clean, dry cloth. It is very dangerous to touch the inside of the charging station, so it is strictly forbidden to do so while the system is in operation. NEVER wipe the inside of the charging station with a damp or wet cloth.

	<ul style="list-style-type: none"> <li>• Before carrying out any repairs, disconnect the charging station from the power supply (AC side) and from the data connection to the transmission port.</li> </ul>
<b>Danger</b>	
	<ol style="list-style-type: none"> <li>1. The charging station should only be put back into operation after any problems have been resolved. For repairs, contact your local authorized service center.</li> </ol> <ul style="list-style-type: none"> <li>• Do not disassemble internal components of the charging station without authorization; this will render the warranty useless.</li> </ul>
<b>Attention</b>	

## 1.2. Symbols and icons

Introduces the most important safety symbols on the charging station. There are a number of safety symbols on the charging station. Read and understand the contents of the symbols before installation:

	Beware of high voltage
	Complies with European Standards
	Earth connection point
	Read this manual before installing the charging station.
	Degree of protection of the device according to IEC 70 -1 (EN 60529 June 1997). IP54 means it's resistant to water and rust, so it's also suitable for outdoor operation and maintenance.

**Table 1 – Symbols on the charging station**

### 1.3. Labels

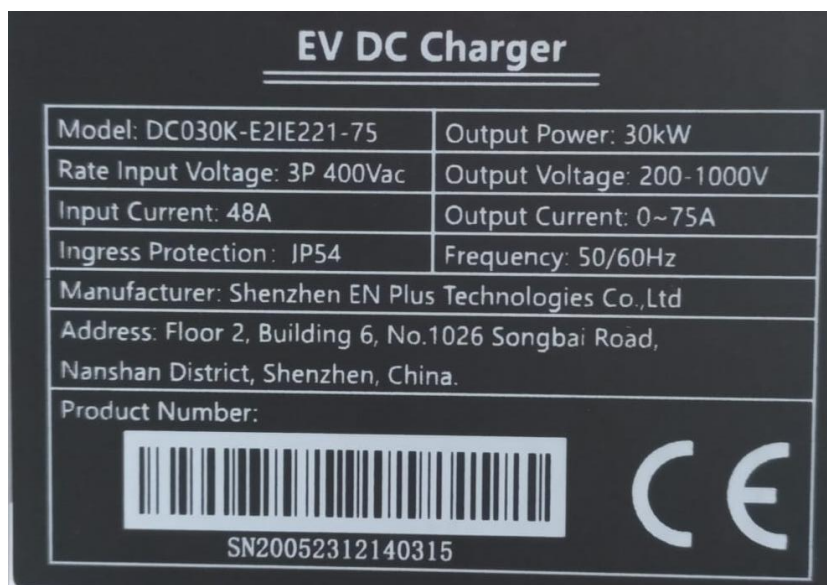


Figure 2 - Labels on the charging station

**DO NOT** remove the labels. **DO NOT** cover with paper, supports, cabinets, etc. Always keep them clean and legible.



## 2. Product Overview

### 2.1. Product Introduction



Figure 3 - Dimensions

Connector	CCS2	External	IP54
Boot Mode	APP/RFID	Installation	Wall or column (optional)
LED Indicator		Touch screen	

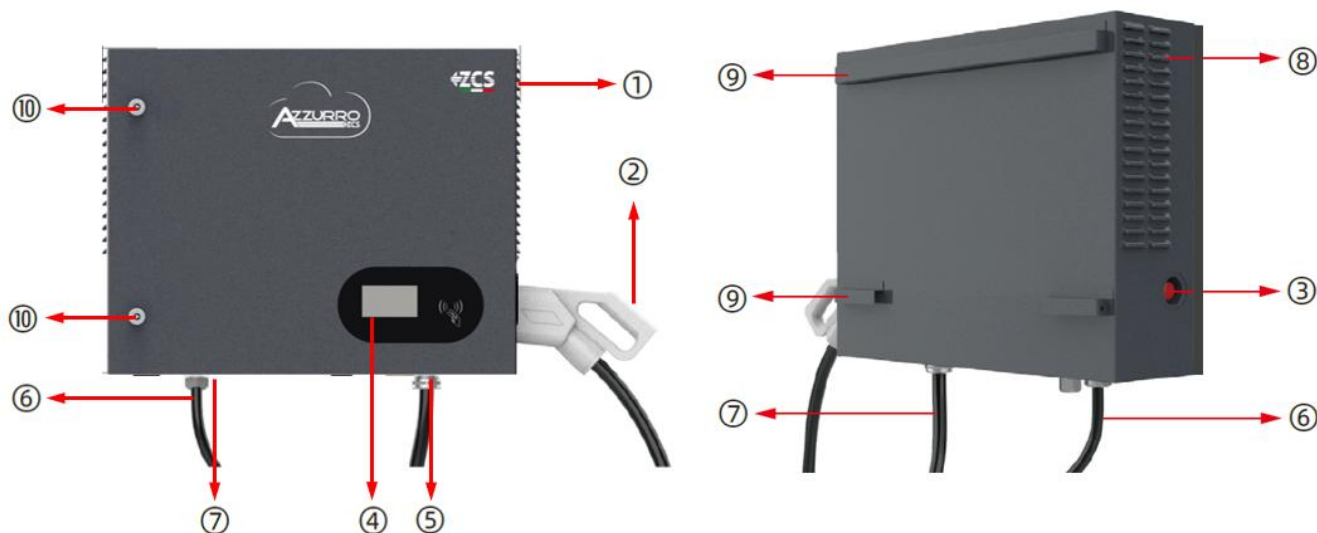
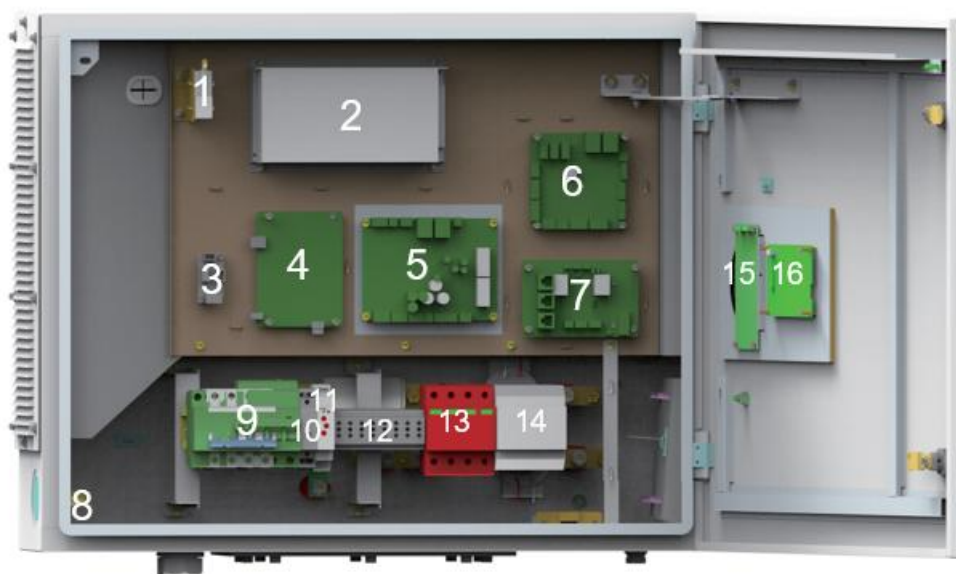


Figure 4 - Detail

1	Air inlet	6	Cable input
2	Charging connector	7	Ethernet input
3	Emergency stop button	8	Air outlet
4	Touch screen	9	Hook
5	Output cable	10	Closing

## 2.2. Interior view



1	Tamper Detector	9	Circuit breaker
2	Power mode switch	10	AC contactor
3	Relay Switch Board	11	Time Relay
4	PLC converter	12	Terminal Lock
5	Charge Control Board	13	SPD
6	Main Control Board	14	DC Counter
7	Gateway	15	RFID Card Sensor Area
8	Emergency button	16	LCD



### 3. Checks before installation

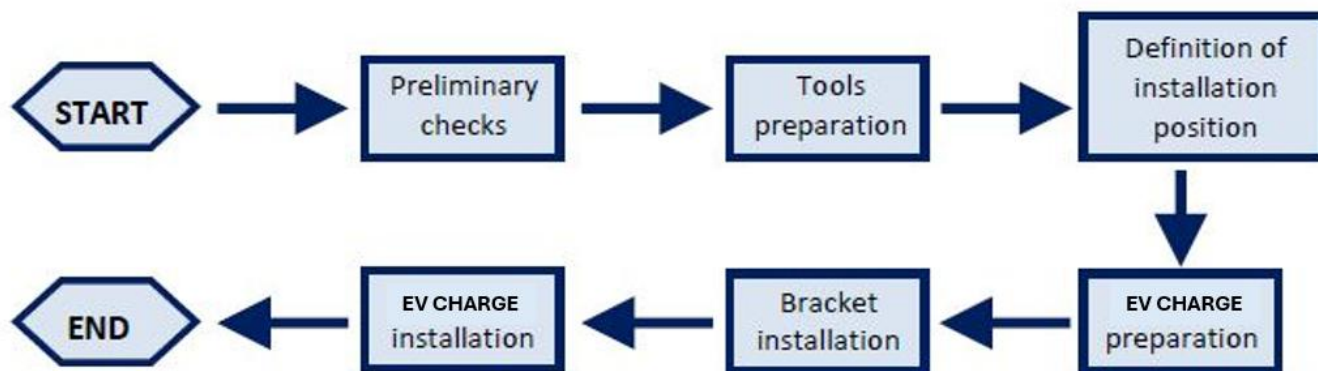




Figure 5 – Installation procedure.

	<ul style="list-style-type: none"> <li>• DO NOT install the charging station near flammable materials.</li> <li>• DO NOT install the charging station in an area where flammable or explosive materials are stored.</li> </ul>
<b>Danger</b>	
	<ul style="list-style-type: none"> <li>• Take into account the weight of the charging station during transport and installation.</li> <li>• Choose a suitable installation location and surface.</li> </ul>
<b>Attention</b>	

#### 3.1. Before installation



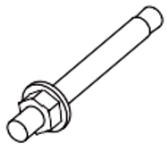
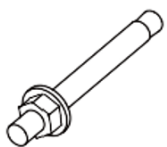
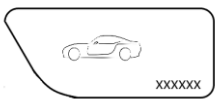
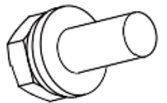

##### Verification of the outer packaging

Packaging materials and components can be damaged during transport. Therefore, it is recommended to check the outer packaging materials before installing the charging station. Check the surface of the package for any external damage, such as holes or tears. If you detect any type of damage, do not open the package containing the charging station and contact the supplier and the courier as soon as possible. We recommend that you check the contents of the packaging and make sure they match what is declared. Otherwise, the dealer must send the missing parts.


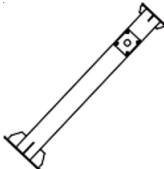






##### Product Verification

After removing the charging station from its packaging, check that the product is intact and complete. If you find any damage or missing components, contact your supplier and transportation company.

## Packaging Contents


N°	Component		Qty
1		Charging station	1
2		Mounting bracket	1
3		60 x M8 Anchor Bolt	4
4		100 x M12 Anchor Bolt	4
5		RFID Activation Card	2
6		16 x Viti M6	2
7		Expansion tube Self-tapping screw	4 4



8		Cable support	1
9		Pillar	1
10		Ring	5
11		Power module	1
12		Cable ties	5
13		Inner triangle wrench	1
14		Declaration of conformity	1
15		User Manual	1



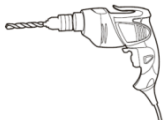





16		Guarantee	1
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Table 2 - Package Contents

	<p><b>The 100 x M12 Anchor Bolt and Pillar are optional, so please make sure you have selected them, otherwise delivery will not include these two items.</b></p>
<p>Note</p>	

### 3.2. Installation tools

The following installation tools are required for the installation of the charging station and electrical connections; therefore, they must be prepared before installation.

N°	Instrument	Function	
1		Phillips screwdriver	Screw and unscrew the screws of the different connections
2		Slotted screwdriver	Screw and unscrew the screws of the different connections
3		Drill	Make the wall holes to fix $\Phi 10/\Phi 12$
4		Hydraulic Clamp: 16mm <sup>2</sup>	Crimp the cables
5		Crescent wrench	
6		wire stripping pliers	Remove the cable jacket
7		Cable shear	Cut the cables
8		Crimping tool	Crimp the cables



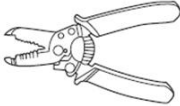


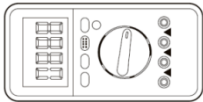

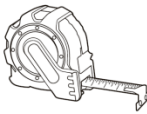
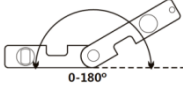



9		Wire Stripping Tool	Remove the outer sheath of the cables
10		RJ45 connector crimping tool	Crimp the cables
11		Rubber hammer	Insert the expansion plugs into the wall holes
12		Multimeter	Check the voltage and current values
13		Marker	Make marks on the wall for greater fixing accuracy
14		Tape measure	Measuring distances
15		Bubble	Make sure the bracket is level
16		ESD gloves	Protective clothing
17		Safety glasses	Protective clothing

Table 3 - Installation Tools

### 3.3. Handling the charging station

1. Open the package and remove the polystyrene protective cover, insert your hands into the slot and grasp the device;
2. Lift the charging station out of the packaging and bring it to the installation position, then remove the polystyrene protectors.

	<p><b>1.To prevent damage and personal injury, hold the device firmly when moving it since it is heavy equipment.</b></p> <ul style="list-style-type: none"> <li>• <b>Always place the device horizontally.</b></li> </ul>
<b>Attention</b>	

### 3.4. Prepare the cables

Cable type	Operating current	Cross-sectional area
AC input power cord (five-way three-phase cable)	48A	Select a suitable cable section

It is important that all cables used are suitable for outdoor use

**NOTE:** For safety reasons, be sure to use correctly sized cables, otherwise the current may cause overheating or overloading, which could lead to a fire.

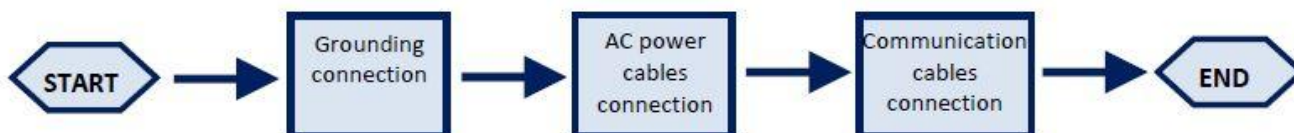
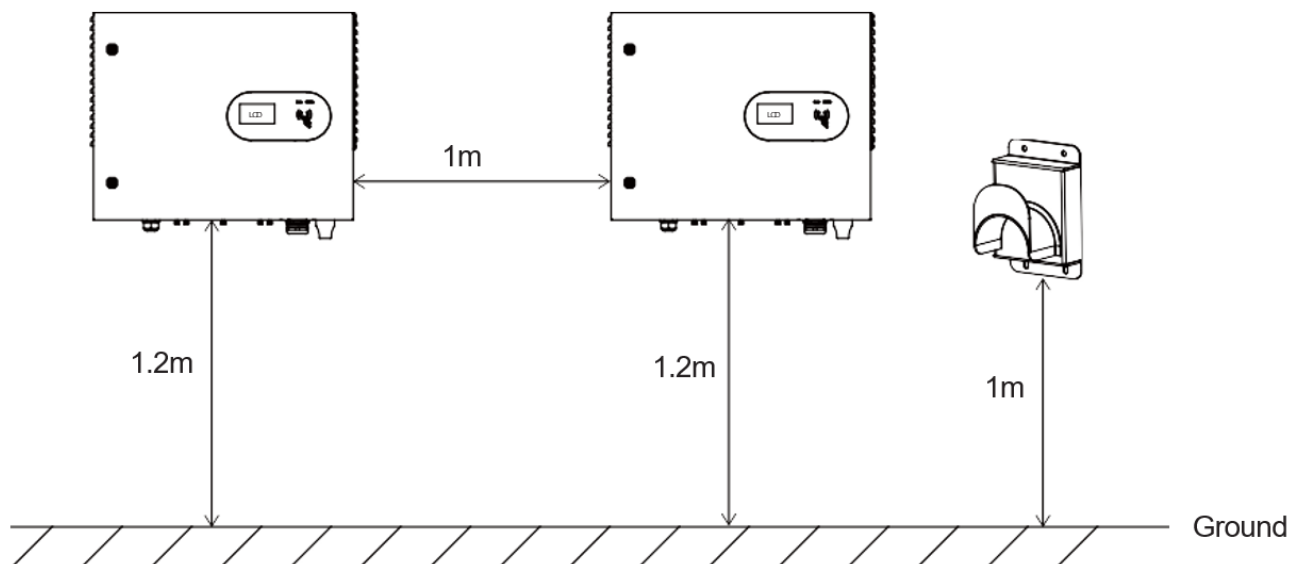


Figure 6 - Logical sequence for connecting cables

### 3.5. Recommended installation distances



It is recommended to install the charging station 1.2 m above ground. The distance between two chargers must be at least 1 m.

It is recommended to install the charging connector holder 1m above ground.



## 4. Installation



- Disconnect the power supply before proceeding with installation work

**Pericolo**

### 4.1. Preparation

**Step 1:** Preparing the site.

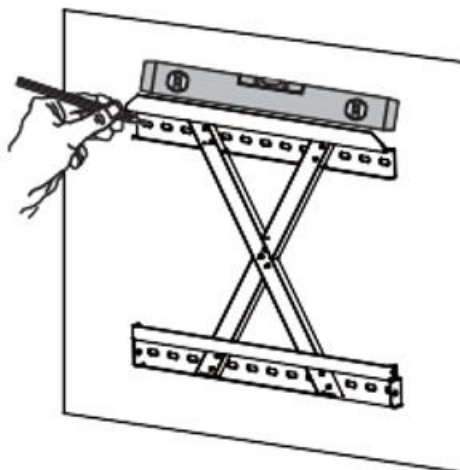
Ensure the space around the charging station for at least 1 meter on all sides free of objects.

**Step 2:** Properly prepare the installation foundations with a concrete structure.

**Step 3:** Make sure the vertical tilt angle does not exceed 5%

### 4.2. Wall installation

**Step 1:** Place the wall mounting bracket, holding it vertically and level, and make six marks at the holes in the mounting bracket.

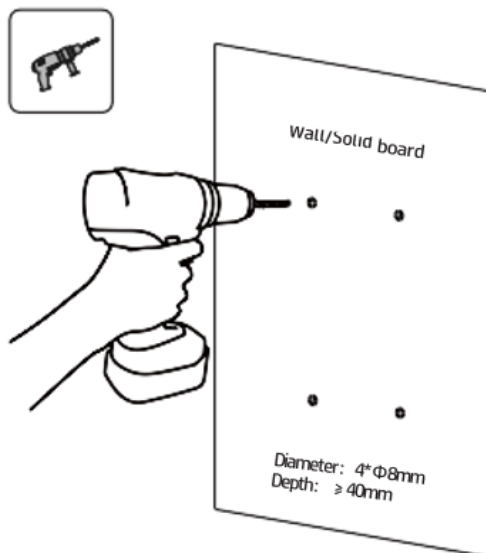




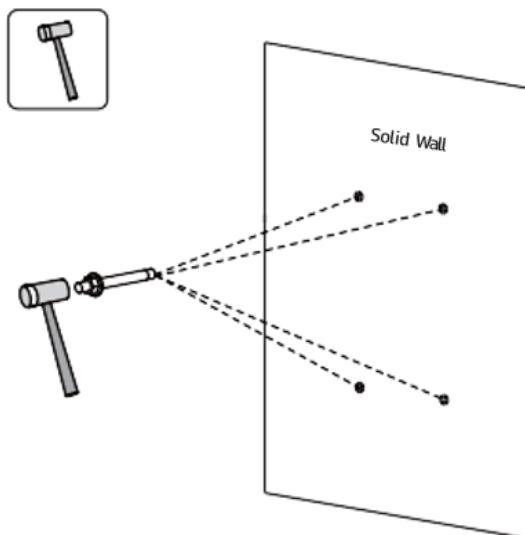
Note

Four marks can be made in all, based on each of the holes in the four corners of the mounting bracket, but it is recommended to make them symmetrically.

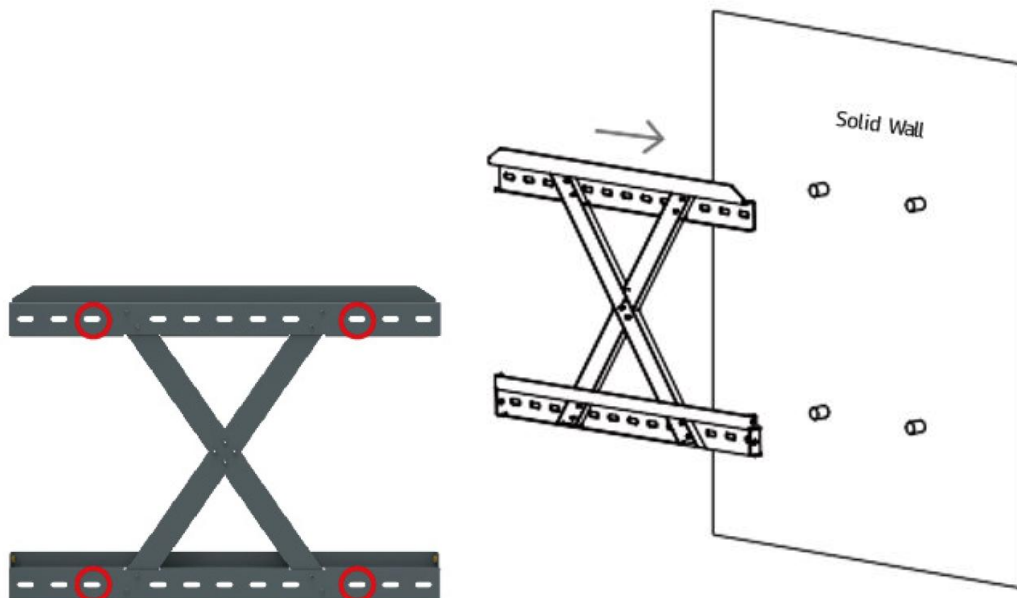
**Step 2:** Use the power drill to drill four holes on the marks made in the previous step.



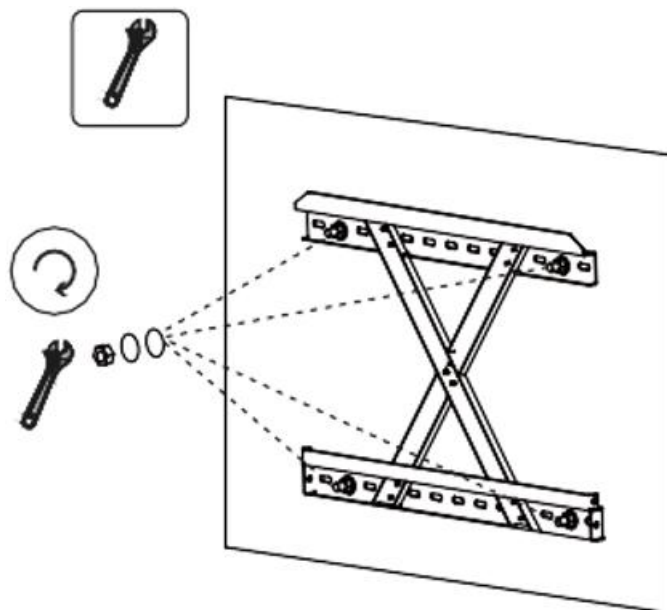
**Step 3:** Use a hammer to insert the entire anchor bolt into the holes.



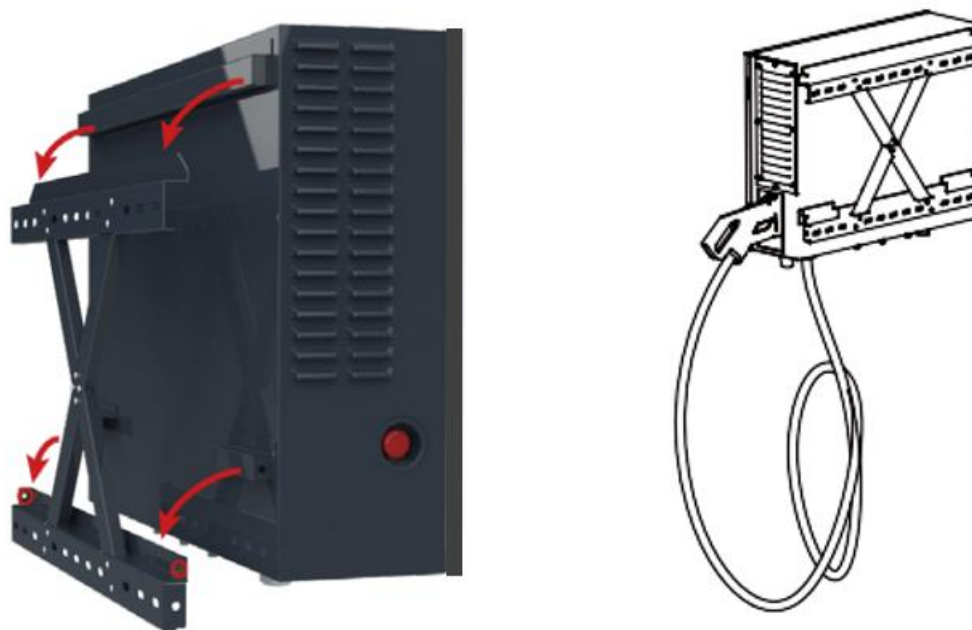
**Step 4:** Install the wall plate. Hang the mounting bracket by inserting the exposed screw into the hole in the mounting bracket.



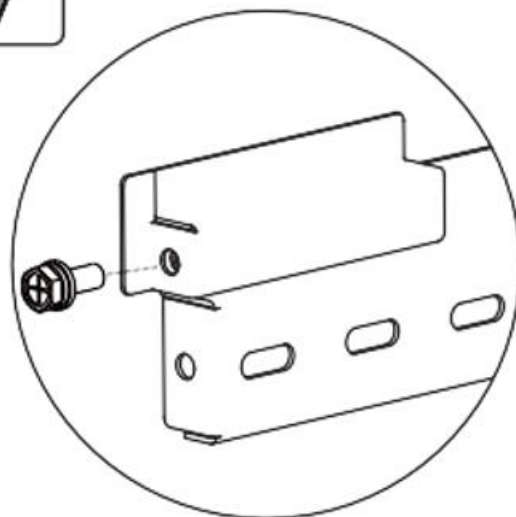
**Step 5:** Insert the nuts onto the screws to securely fasten the mounting bracket.



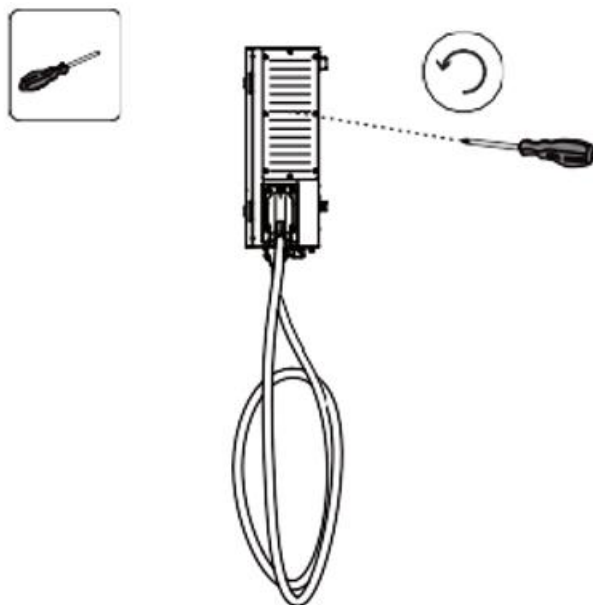
**Step 6:** Hang the charging station and tighten the fixing bolt on both sides.



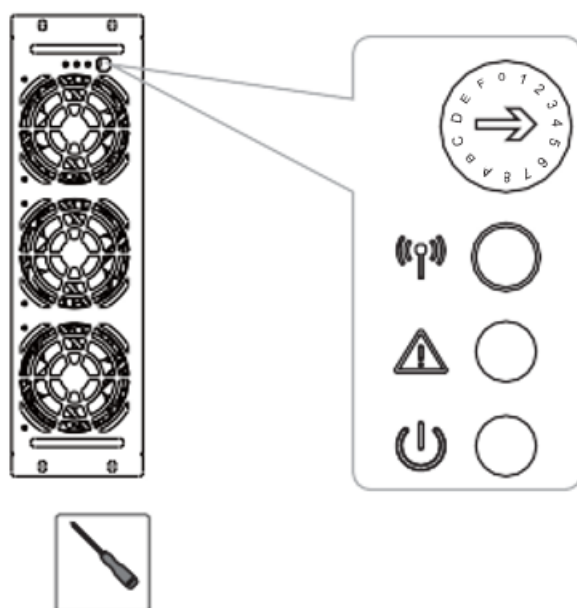
**Step 7:** To hang the charging station, insert the ends of the two parallel iron bars of the mounting bracket into the hooks on the back of the charging station so that they fit together. Tighten the charging station with two screws.



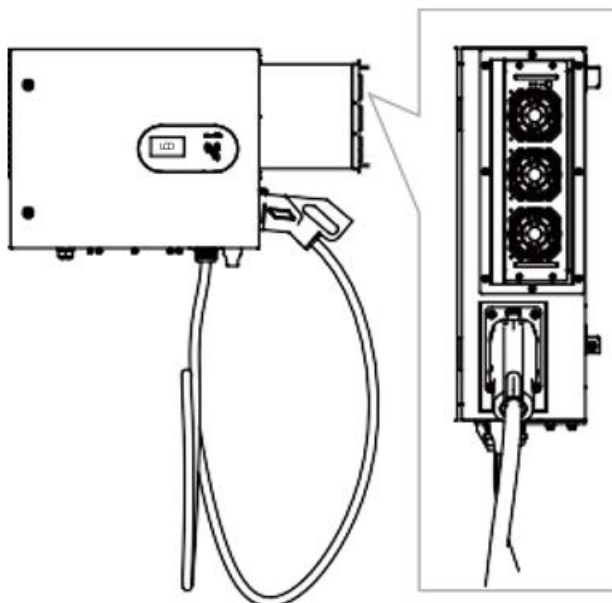
**Step 8:** Loosen the 8 screws on the power module cover.



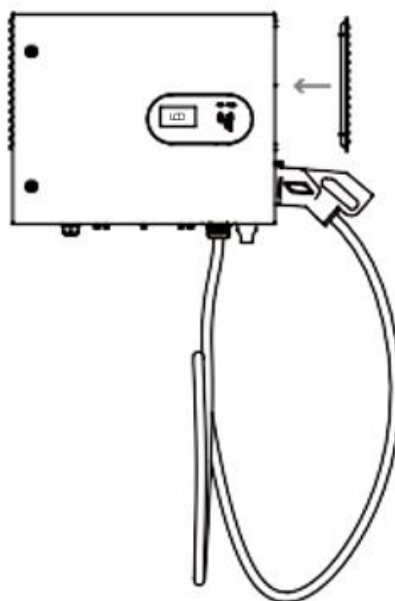
**Step 9:** Use a slotted screwdriver to turn the "arrow" knob so that the arrow points to the number 0.



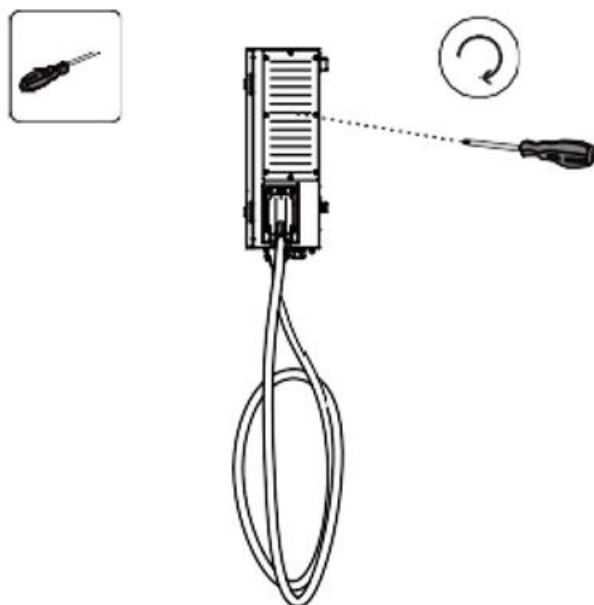
**Step 10:** Gently place the power module in the cabinet.



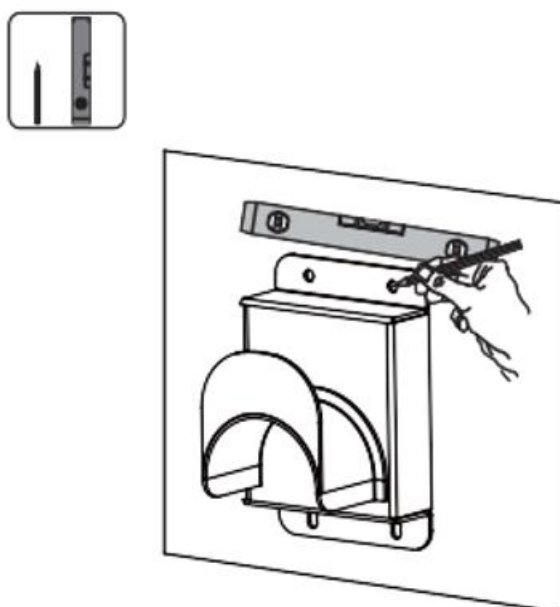
**Step 11:** Close the lid.



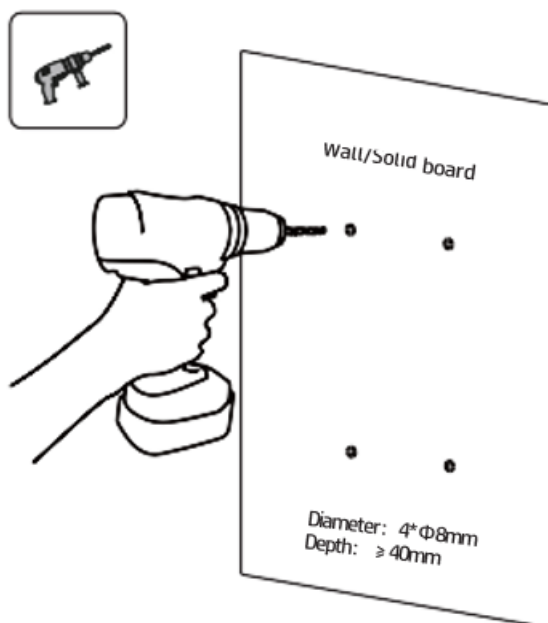
**Step 12:** Put the 8 screws into the holes in the cover and tighten the screws.



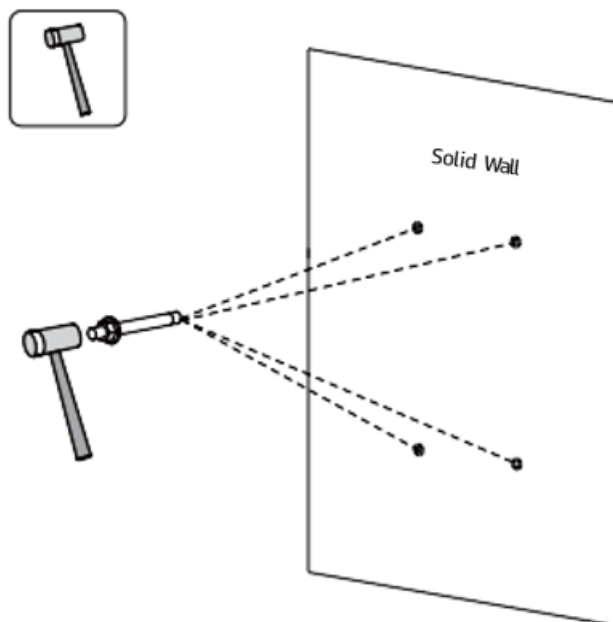
**Step 13:** Place the cable mount on the wall, holding it vertically and level, and make four marks at the holes on the cable mount.



**Step 14:** Drill four holes with a power drill on the marks made in the previous step.

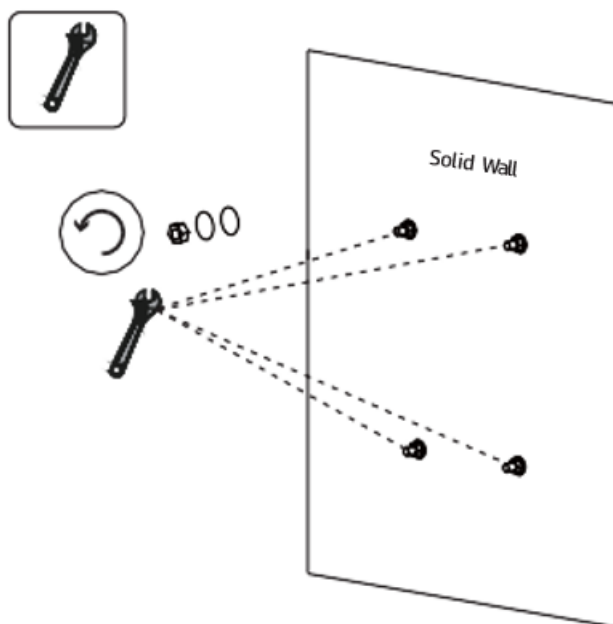


**Step 15:** Push the entire anchor bolt into the holes with a hammer.

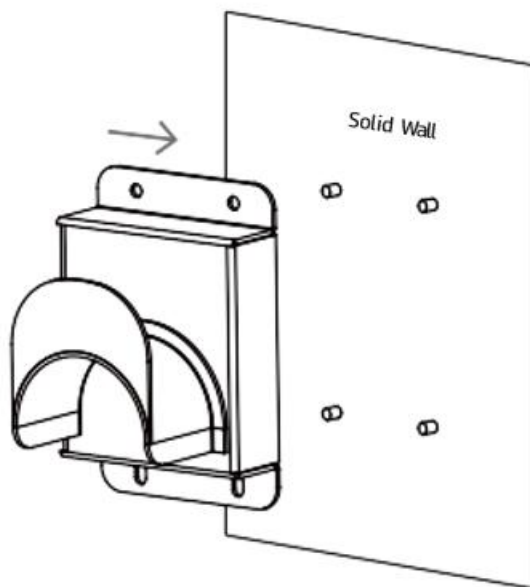




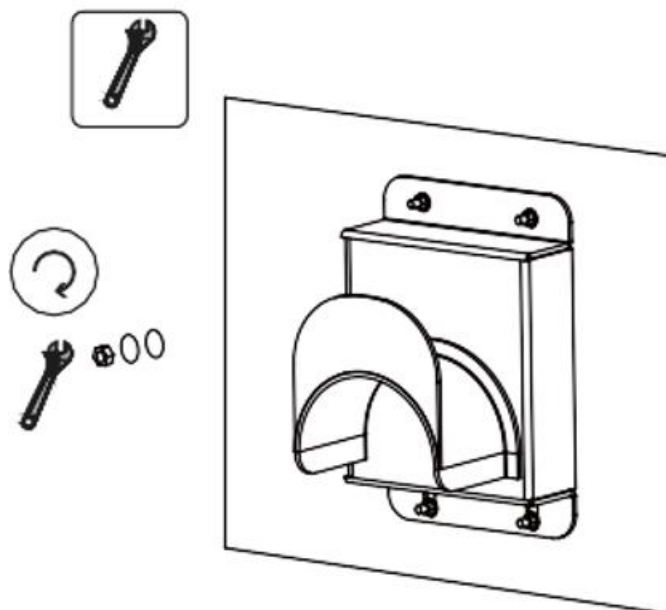
**Step 16:** Unscrew the nuts counterclockwise with an adjustable wrench.



**Step 17:** Hang the cable holder by inserting the exposed screws into the holes in the cable holder.



**Step 18:** Screw the nuts onto the screws to securely attach the cable mount.



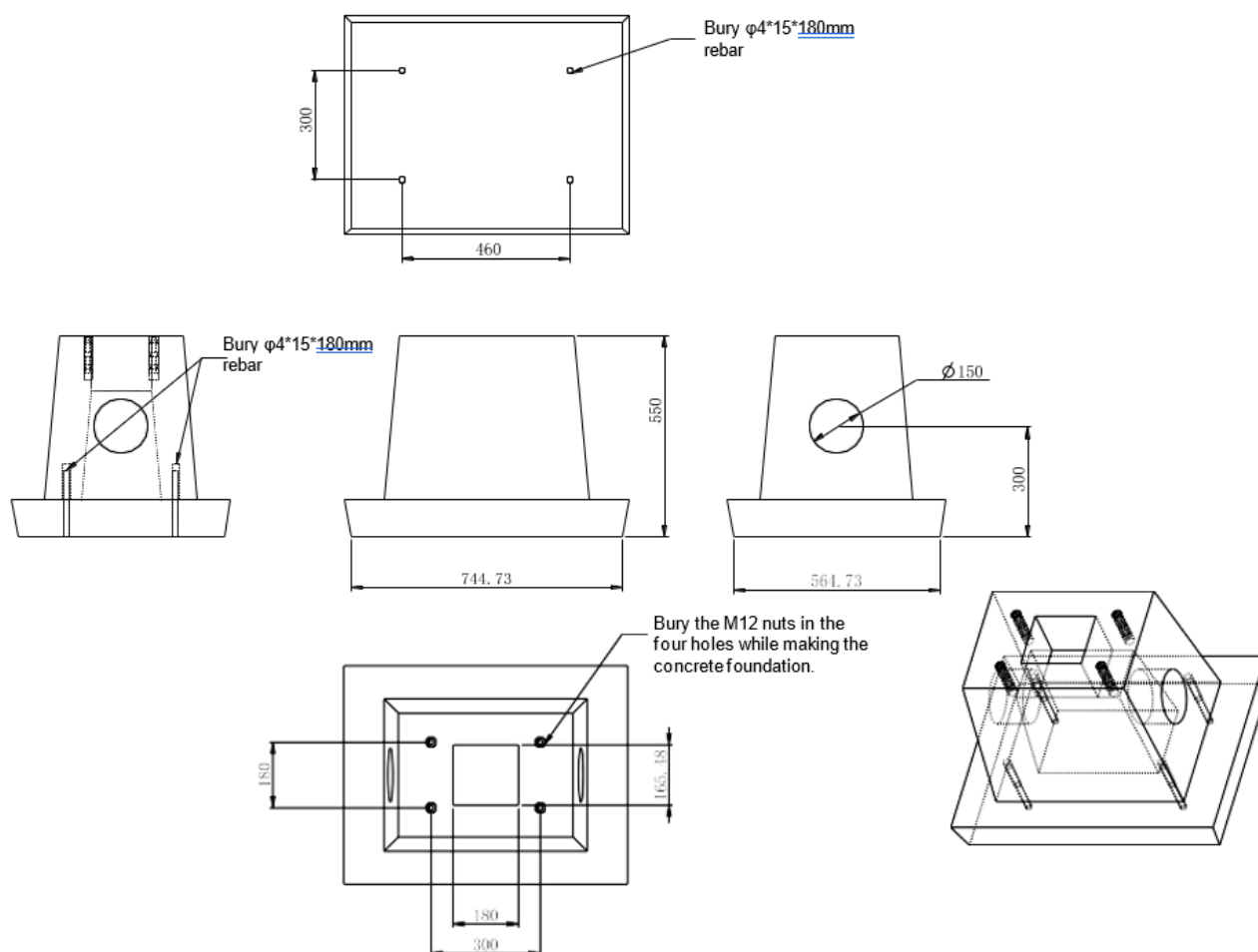
### 4.3. Column installation (optional)

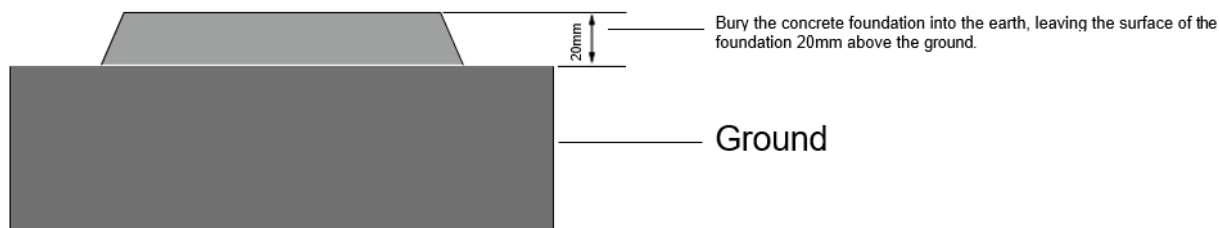
The installation of the fast charging station can be carried out on solid ground, which can be a concrete foundation or a concrete floor. When sizing foundations, it is recommended to perform a static load capacity analysis in accordance with the relevant standards.

#### Prepare the concrete foundation.

As shown below, follow the instructions to make the concrete foundation. The concrete foundation must be 20 mm above the ground.

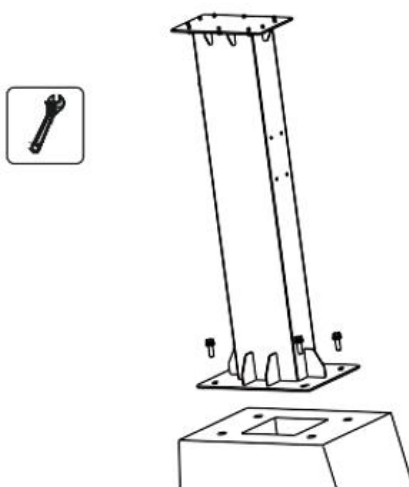
The holes on the concrete foundation must be: 14 mm (diameter), 90 mm (depth).



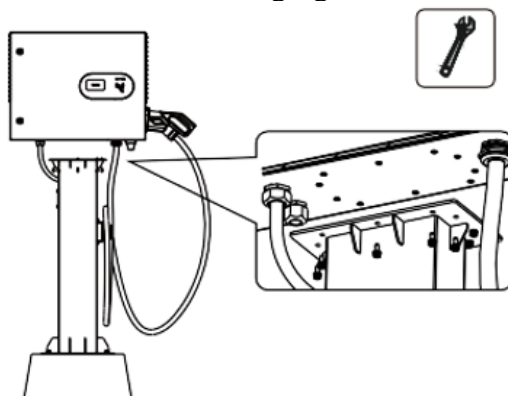


### 4.3.1. Install the column and charging station

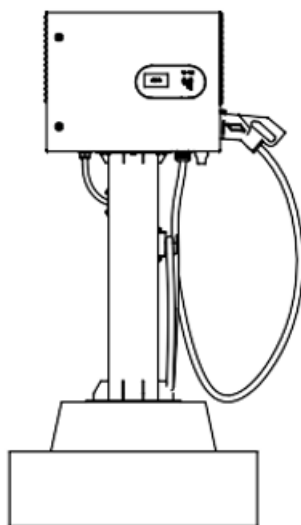
**Step 1:** Align the holes in the column with the concrete foundation nuts, then tighten the screws.



**Step 2:** Place the charging station on the pedestal bracket, as shown, and match the ten holes in the pedestal with the ten holes at the bottom of the charging station.

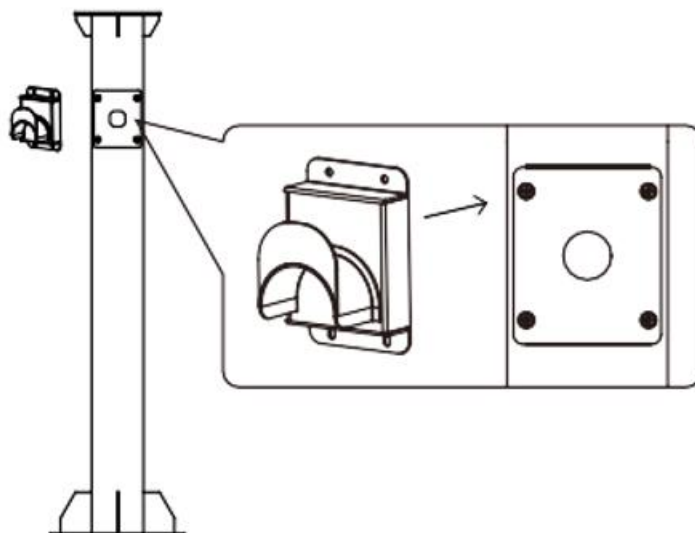


**Step 3:** Insert the screws into the holes and tighten them to secure the charging station securely to the column.

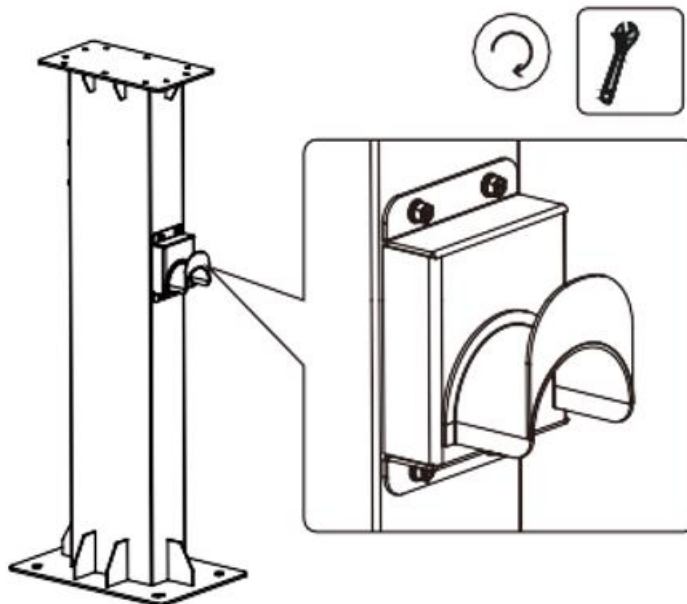


### 4.3.2. Install the cable mount

**Step 1:** Loosen the four screws on the right side of the column and align the holes in the socket holder with the socket support installation holes on the column.

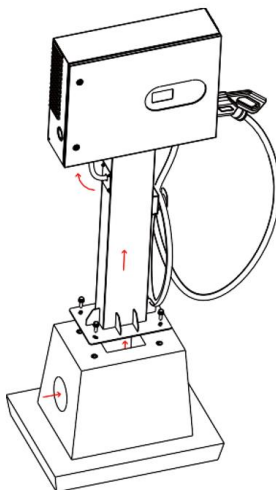


**Step 2:** Tighten the screw clockwise to securely attach the socket mount.



### 4.3.3. The cable route

**Step 1:** The cable will be laid underground, then it will pass through the hole on the left side of the concrete foundation and exit through the hole at the top of the foundation to pass through the column and exit through the hole on the left side of the column.



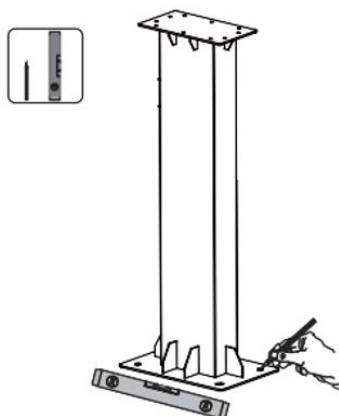
### 4.3.4. Column installation (without concrete foundation)



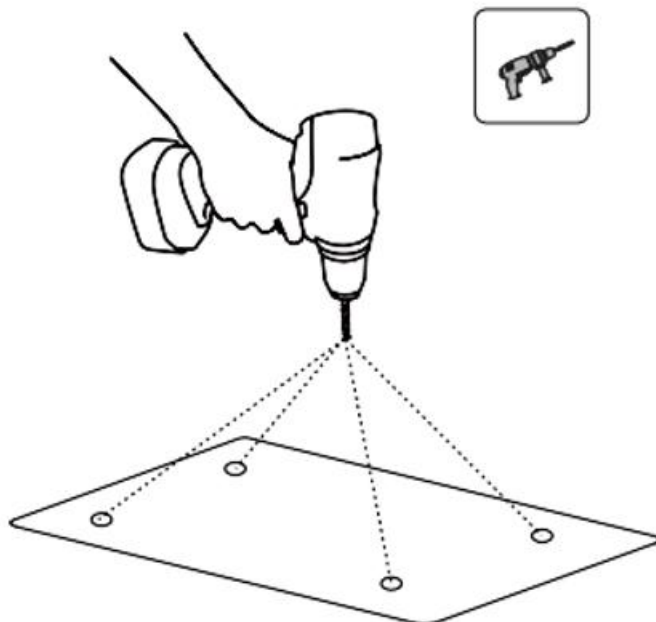
Attention

**1. When choosing column installation, but without a concrete foundation, make sure that the concrete floor is level and 200 mm thick.**

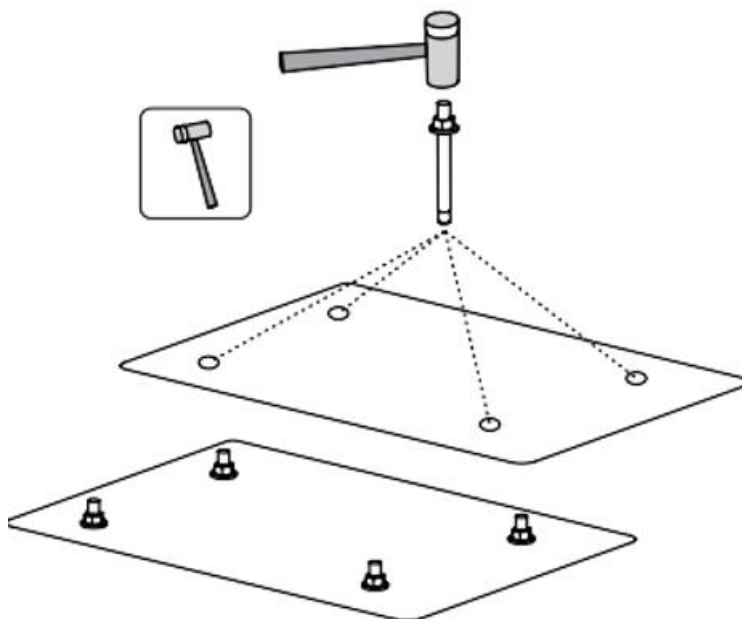
**Step 1:** Place the column on the concrete foundation and make four marks at the holes in the column.



**Step 2:** Use the power drill to drill four holes on the marks made in the previous step.

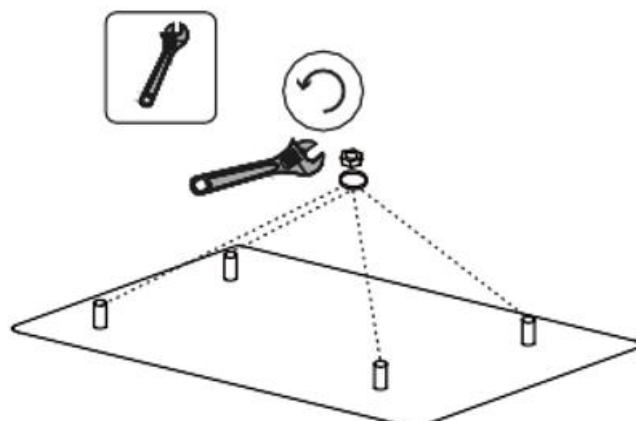


**Step 3:** Push the entire anchor bolt into the holes with a hammer.

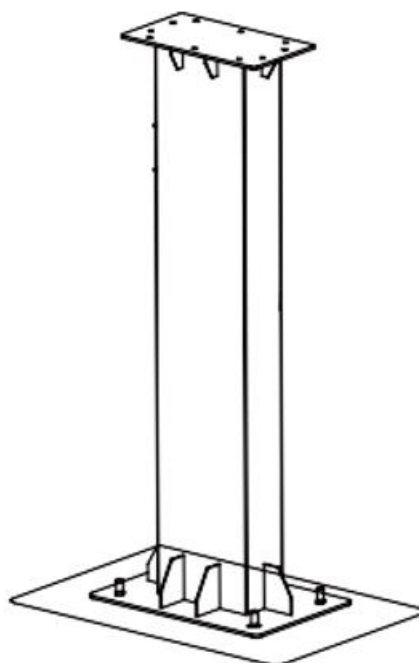


**Step 4:** Loosen the nuts counterclockwise with an adjustable wrench.

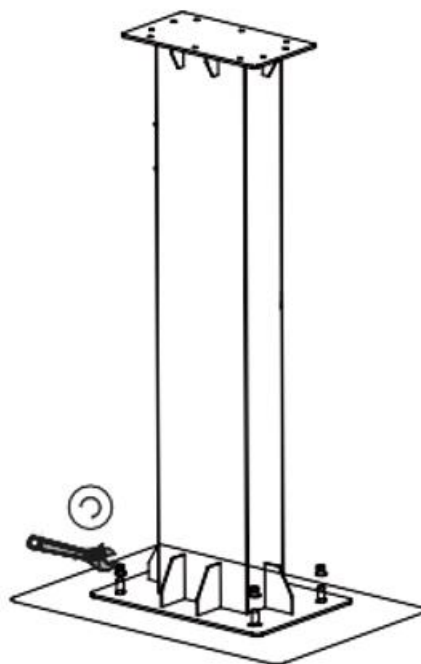




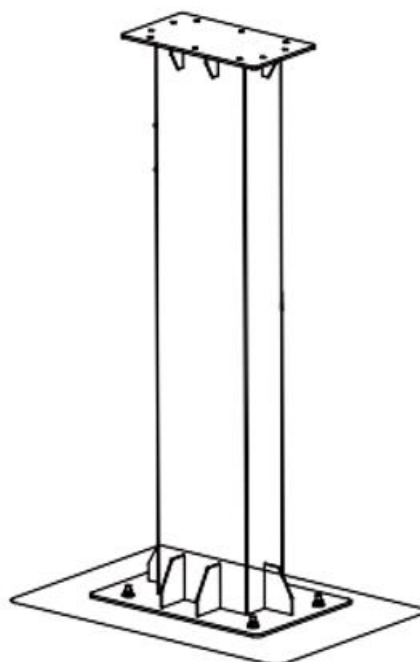
**Step 5:** Insert the four exposed screws into the four holes in the column.



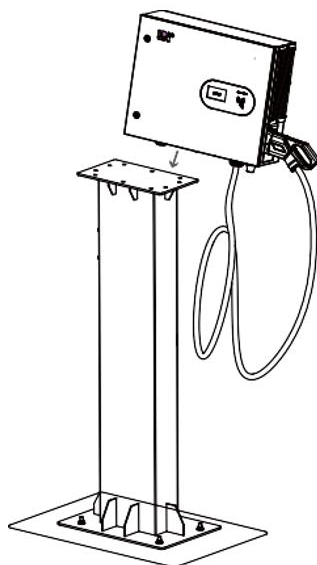
**Step 6:** Insert the nut onto the screw to securely fasten the column.



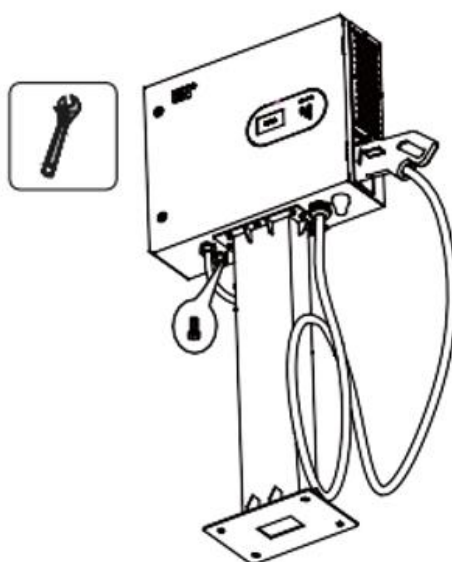
**Step 7:** Column installation completed.



**Step 8:** Align the ten holes in the column with the ten holes on the bottom of the charging station.



**Step 9:** Tighten the ten screws to secure the charging station securely on the column.

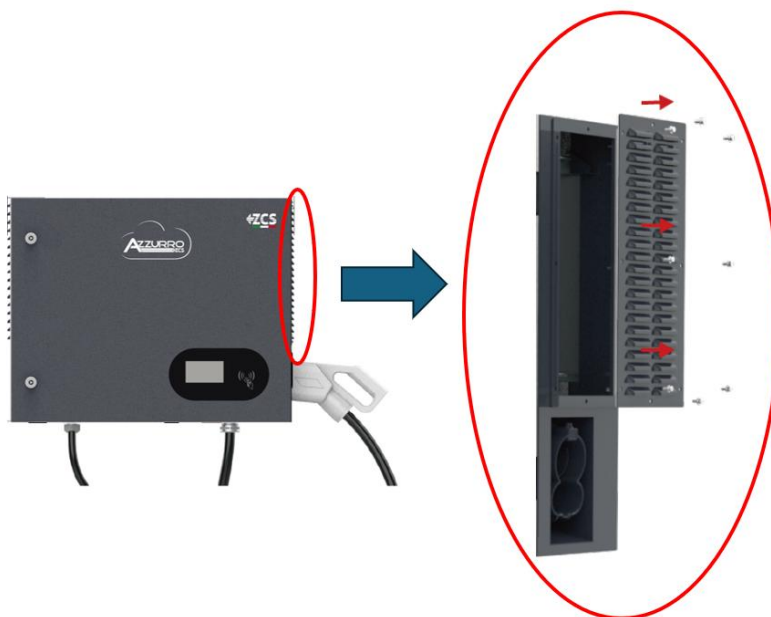


**Attention**

**1. For the installation of the mount, refer to the "Installing the Mount" section in the wall installation.**

## 4.4. Power Module Installation

**Step 1:** Remove the side panel (store the screws properly)



**Step 2:** Insert the power module and tighten 4 x M4 x 12mm screws.



**Step 3:** Replace the side panel.

**Caution:** The LED indicator should be kept at the top.



## 4.5. Wiring

### 4.5.1. Connect the power cord

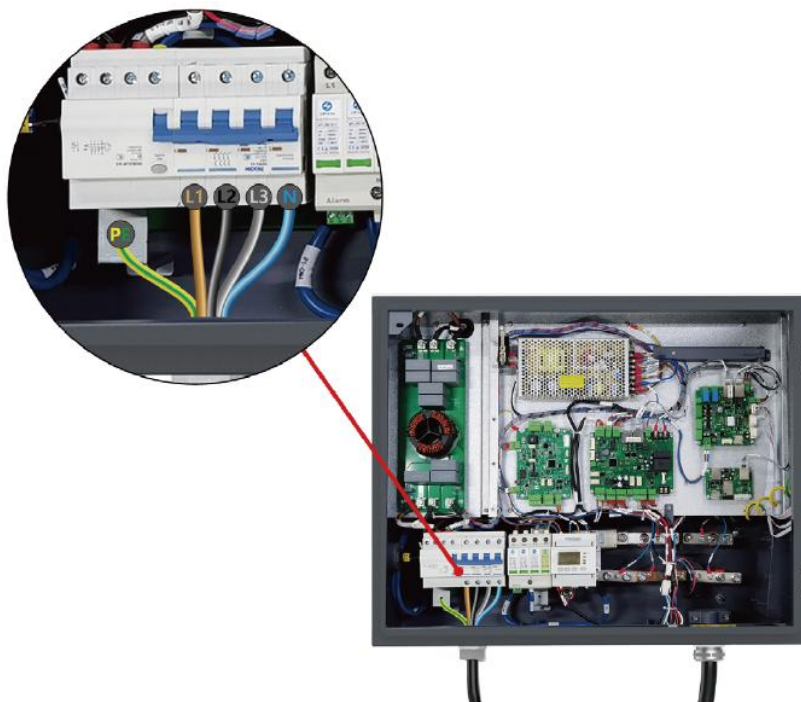
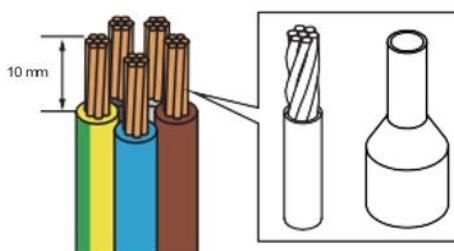


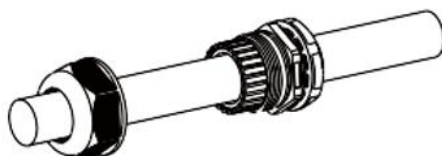
Figure 7 - Wiring

**Step 1:** Remove 90 mm of the cable sheath. Remove 10 mm of the wire sheath. Lay out the exposed copper wires and insert them into the ferrules. Crimp the terminals with the crimping tool.

**Note:** The recommended wire diameter is 16mm<sup>2</sup>



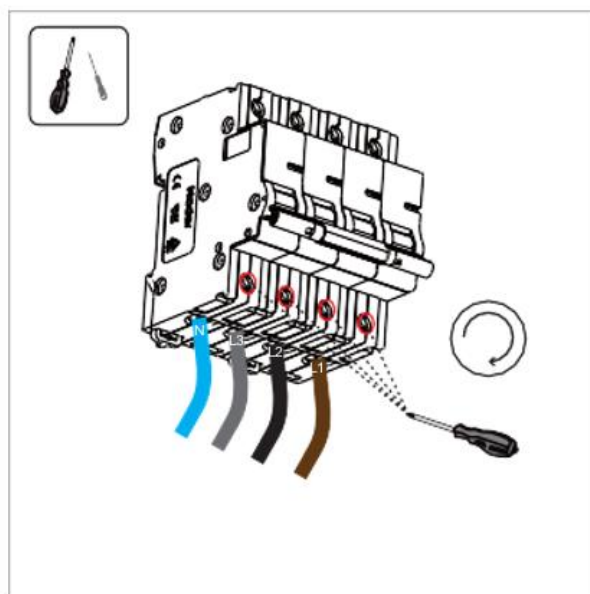
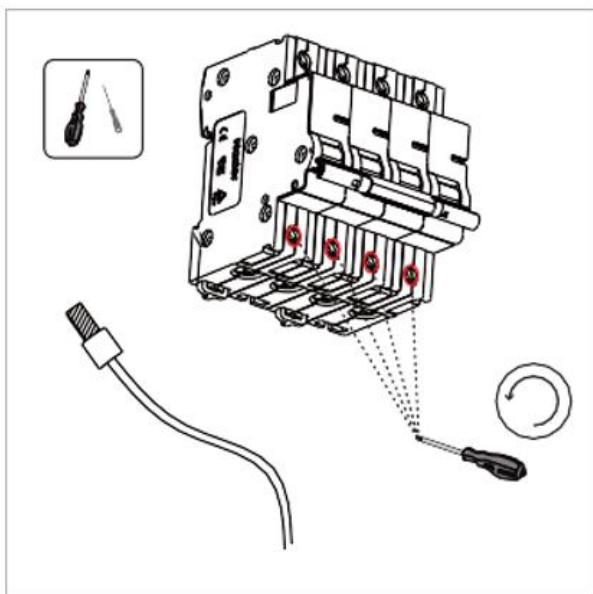
**Step 2:** Use the wrench to loosen the strain relief at the bottom of the cabinet and insert the cable into the strain relief.



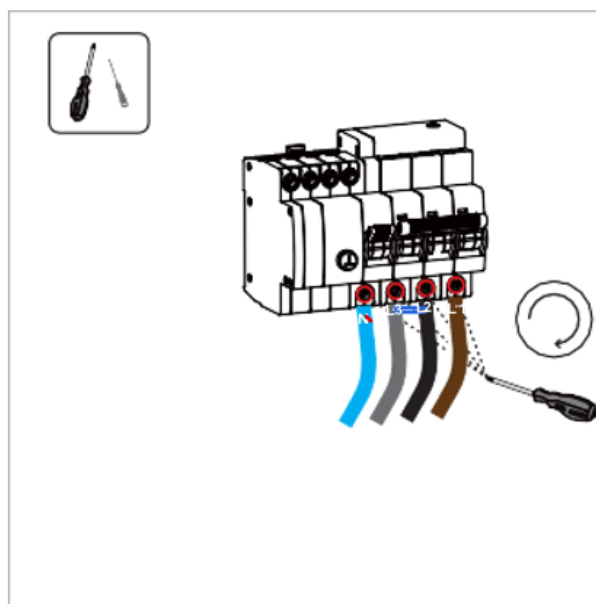
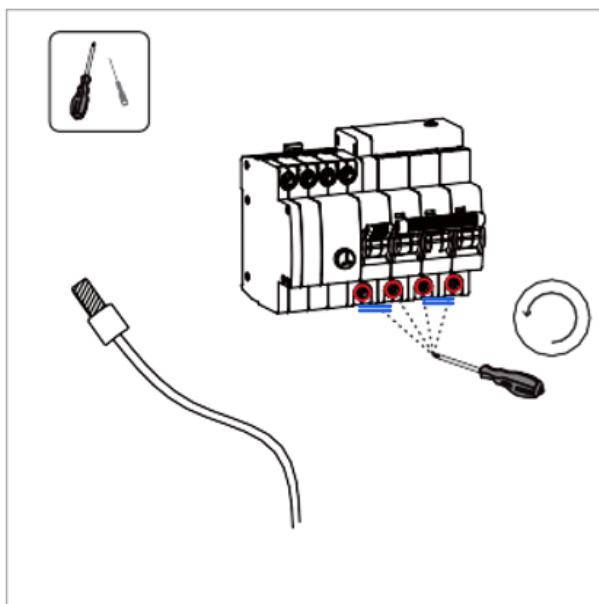
Attention

1. Remember that the circuit breaker is **OPTIONAL**; The diagrams below show the two different wiring options.
2. Loosen the screws on the terminal block as indicated, then insert the crimped ferrule wires into the ports and tighten the screws.

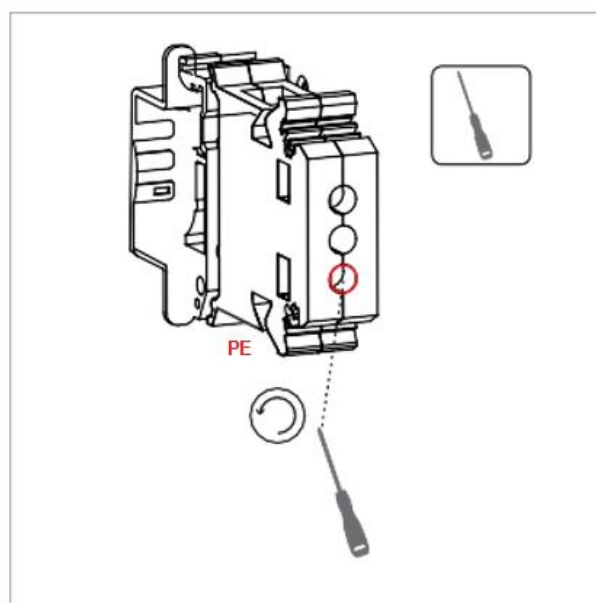
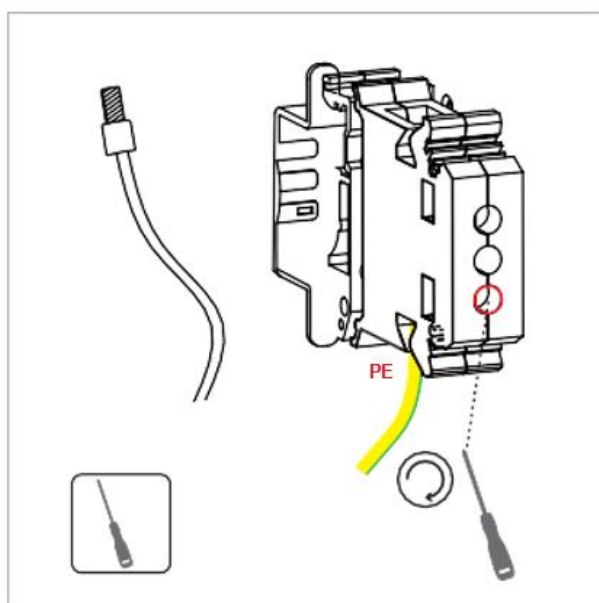
**Step 3:** With circuit breaker



**Step 4: Without circuit breaker**



**Step 5: Connect the PE cable.** Loosen the screws with a slotted screwdriver. Insert the crimped PE cable with ferrule into the port and tighten the screws.

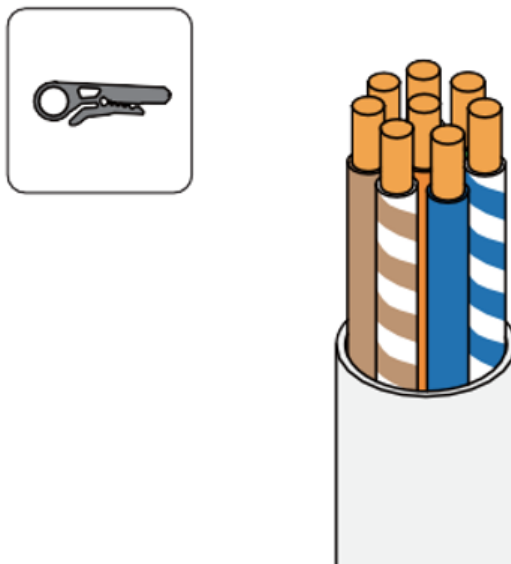




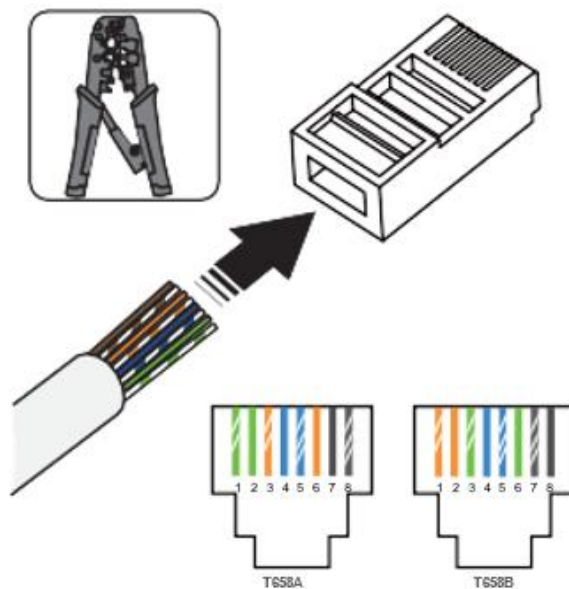
## 4.5.2. Ethernet cable

If Ethernet connection mode is set, then follow the instructions below.

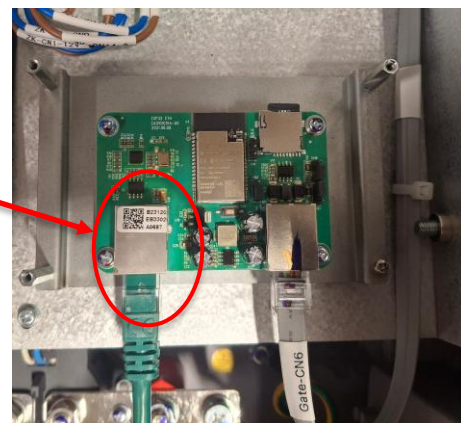
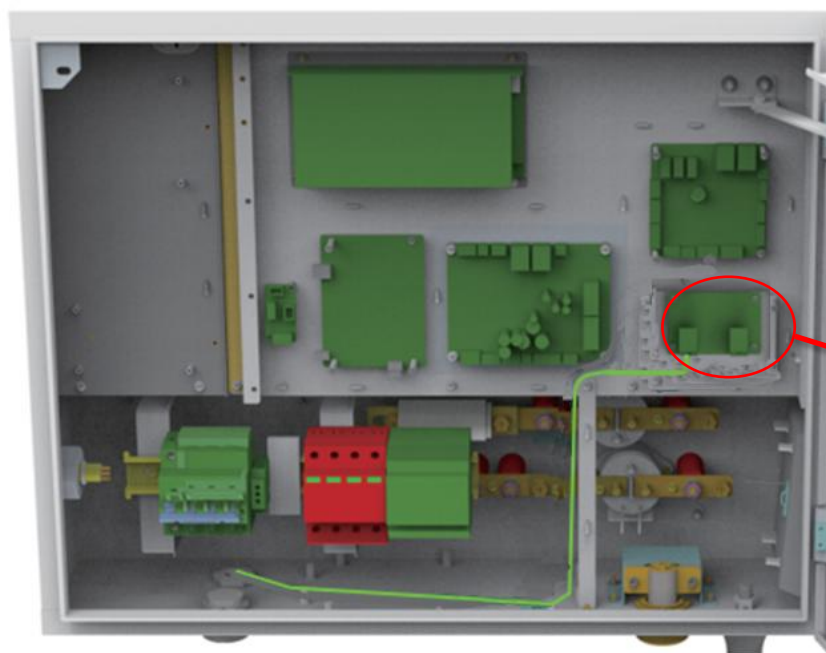
**Step 1:** Remove the cable and wire sheath with the wire stripping pliers.



**Step 2:** Insert the wires into the RJ45 connector and crimp the wires with the crimping tool.



**Step 3:** Connect into the port indicated by the arrow and secure the cables with a cable tie. I also changed the photos below)



— Ethernet cable

## 4.6. External protective equipment

The charging station is equipped with a residual current device (RCD) to detect any current faults. It is also equipped with a detection system for DC components above 6mA.

It is recommended to install a magnetothermic device of suitable capacity on the AC connection cables for installation, uninstallation, maintenance and disconnections due to other reasons.

## 5. Disposal

The packaging materials are environmentally friendly and can be recycled.


Do not dispose of this product with household waste. It must be delivered to the designated collection point for the recycling of electrical and electronic products. For more information, please contact your local office, your household waste disposal service or your local product supplier.

## 6. Commissioning: Configure the network for the charging station

The charging station can be put into operation through the following ways:

1. Through EVcharge APP, with which you simply install the APP on your smartphone and perform the steps for configuration
2. Through the EVcharge portal, with which you must send a written request to the ZCS team indicating the name of the company, the name of the account and the email with which you want to configure the account.

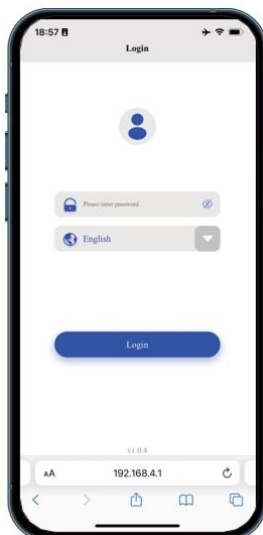
To configure the Wi-Fi or Ethernet of the charging station, you must use AP mode.

	<b>AP mode, which is similar to a local LAN area network, activates internet locally between your phone and the charging station.</b>
<b>Attention</b>	

1. Put your mobile phone in airplane mode and make sure your device's Wi-Fi is turned off.
2. Restart the power supply to the charging station to activate the hotspot.
3. Locate the Wi-Fi hotspot of the charging station (Wi-Fi name: the serial number of the charging station) in the Wi-Fi list of your mobile phone.
4. Enter the password to connect the charging station to your mobile phone: admin123

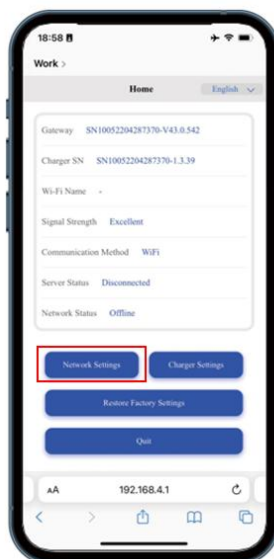
	<b>The charging station hotspot remains available for 15 minutes after the charging station has been restarted.</b>
<b>Attention</b>	

**Step 1: Login.** To access the AP mode LOGIN page, enter the IP address 192.168.4.1 in a browser, followed by the 4-digit network password (PIN number, which can be found labeled on the charging station mechanics) if not indicated please contact support to receive it.



**Step 2:** Click on

Network Settings



**Step 3:** Set up Wi-Fi or Ethernet. After logging in, you will have access to the following interfaces: If you choose the Wi-Fi connection mode, search for the network to which you want to connect the charging point and enter the relevant password if present to make the connection.



< Impostazioni di rete Italiano

WiFi

Azzurrozcs2

.....


wss://ocpp16.evcharge.com:33033/SN10052305255201

TN

Conferma

Controllare che l'indirizzo della piattaforma indicato sotto corrisponda

	<b>Evcharge Cloud Platform Address:</b> <b>wss://ocpp16.evcharge.com:33033 (The following corresponds to the serial number of the charging station)</b>
<b>Attention</b>	

	<b>Once you press on confirm, the charging station will automatically restart, ending communication between the mobile phone and the charging point. Your mobile phone can now automatically connect to other Wi-Fi hotspots, preventing you from accessing the network configuration interface. As a result, before entering the network configuration interface, make sure that your mobile phone is connected to the Wi-Fi hotspot of the charging station.</b>
<b>Attenzione</b>	



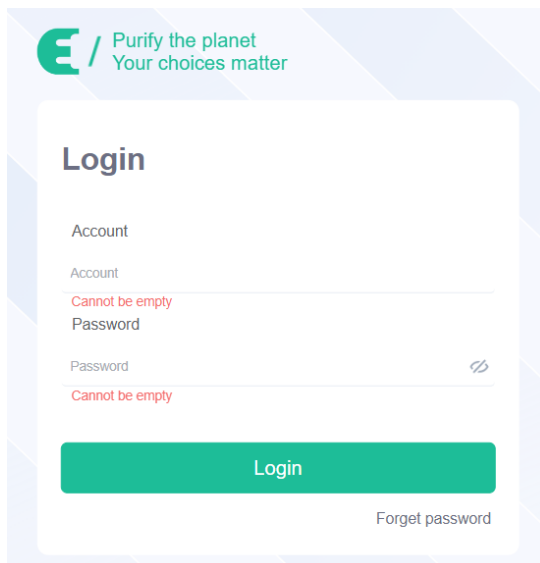
## 6.1. Connect the charging station to the Evcharge portal

You can ask our team through the customer support service, to activate an account on the Evcharge Cloud platform, by indicating to us:

1. the name of the account
2. the name of the company
3. email with which you want to register.

Once your user profile has been created, you will receive your password by e-mail to the e-mail address you have provided to us by [notification@evcharge.com](mailto:notification@evcharge.com).

To access the portal via the search engine, go to <https://cloud.evcharge.com> and log in by entering your credentials.



To use the monitoring portal, refer to the dedicated documentation on the <http://www.zcsazzurro.com/> website.

In the section on charging stations, the document "Evcharge Portal User Manual"

## 6.2. Connect the charging station to a third-party portal

In case you need to configure the wallbox with a third-party portal, follow the procedure:

### **Attiva l'hotspot:**

Turn on the charger's hotspot by restarting the power.

The charger hotspot remains available for 15 minutes after the charger is restarted.



### Connect to the charger hotspot:

Turn on your smartphone's Wi-Fi and connect the charger hotspot. If you can't connect, try using airplane mode.

The name of the Wi-Fi hotspot starts with the SN number of the charger, which is "SN..." .

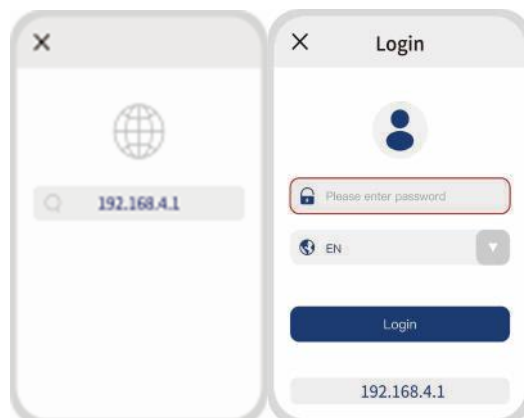
The password is admin123.



### Access

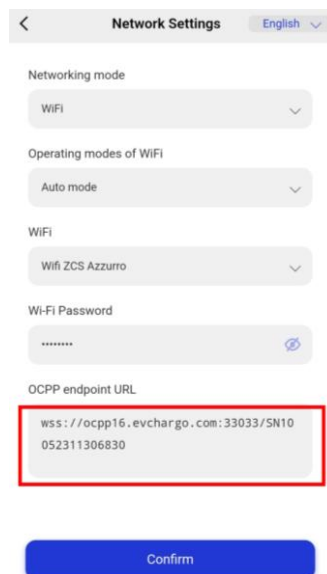
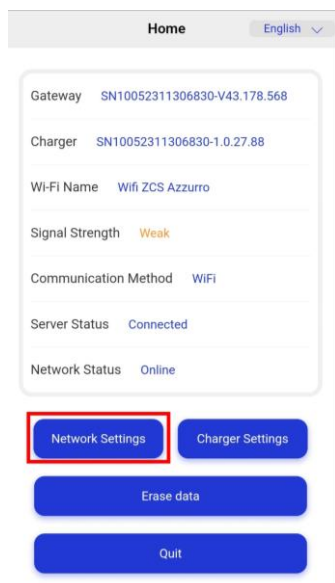
Open the browser on your smartphone and enter 192.168.4.1 in the address bar.

Log in using the four-digit PIN code found on the last page of the manual or inside the box. After logging in, the function menu will be displayed.



Once logged in, click on *Network Setting*. Finally, change the *endpoint* to the one for the third-party portal and press Confirm.





### 6.3. Connect the charging station to the Evcharge APP

If you choose to use the charging station for private use, then it is recommended to choose the configuration through the Evcharge application, so you do not need to contact the ZCS service to make a request. The app is available for Apple and Android devices.

- Download the Evcharge APP for smartphones



[Download App Evcharge](#)

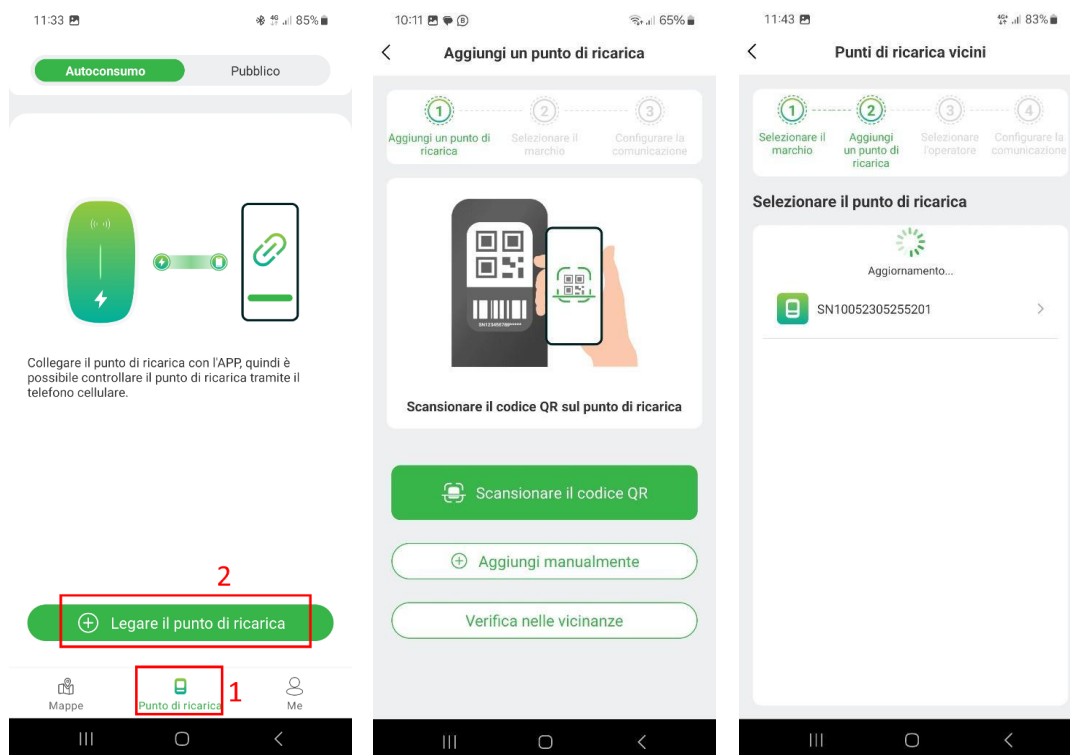
- When registering, check the second box if you own a charging station.



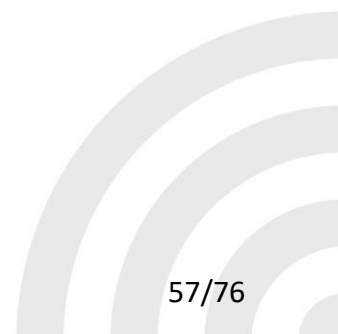


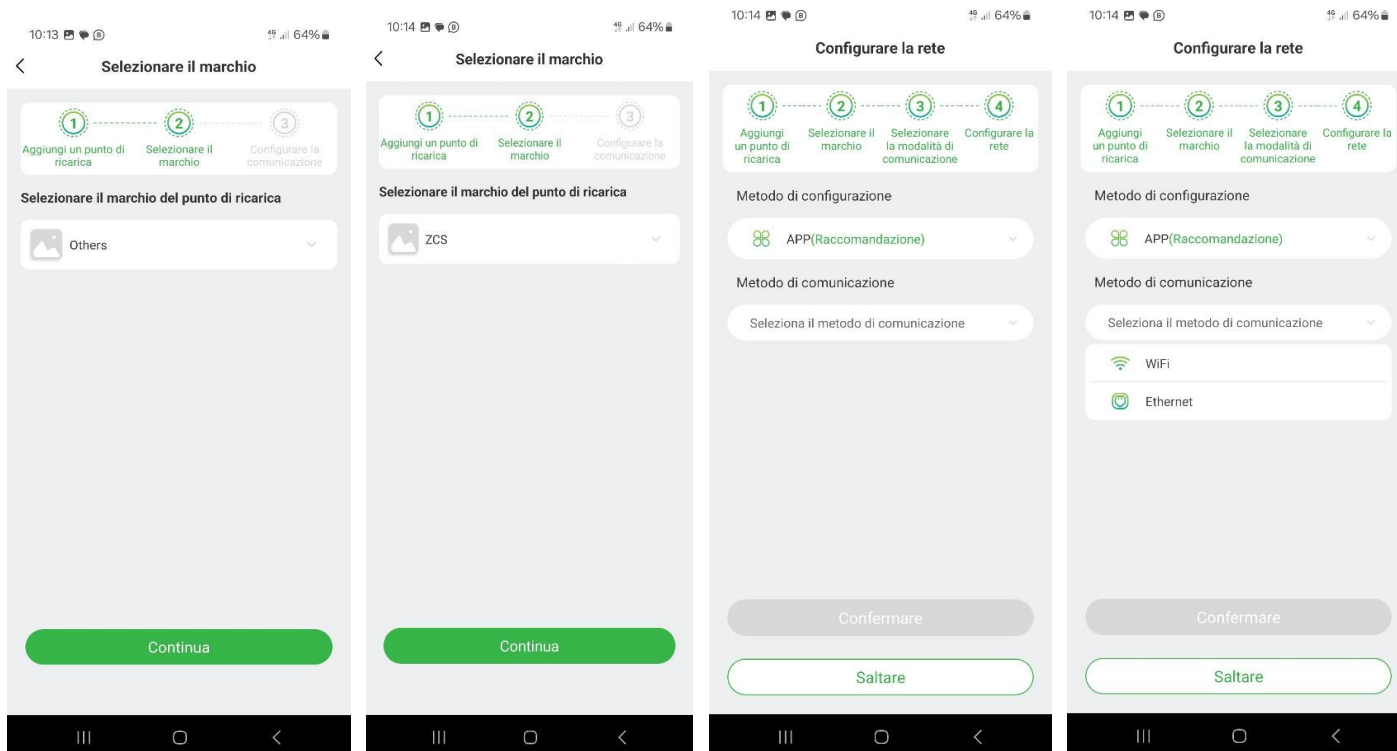


- From the first page after logging in, select charging **point** at the bottom and set it up.
- If you are setting up near the charging station then you can select **on Check nearby**, otherwise you can manually add or scan the QR code on the wallbox label.



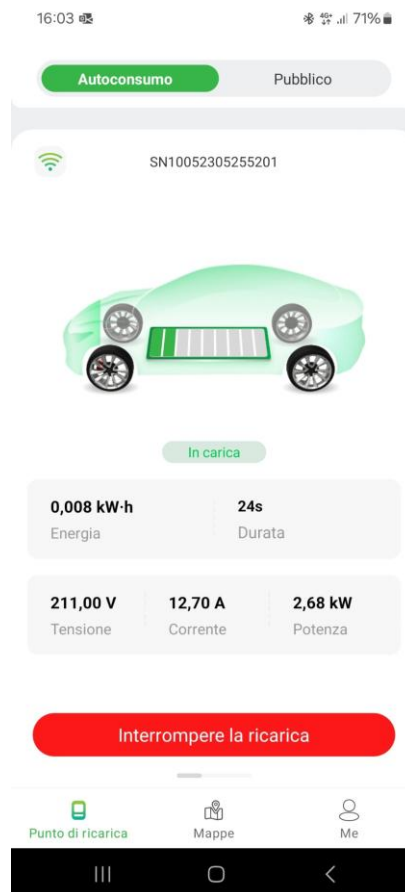
Select **ZCS**





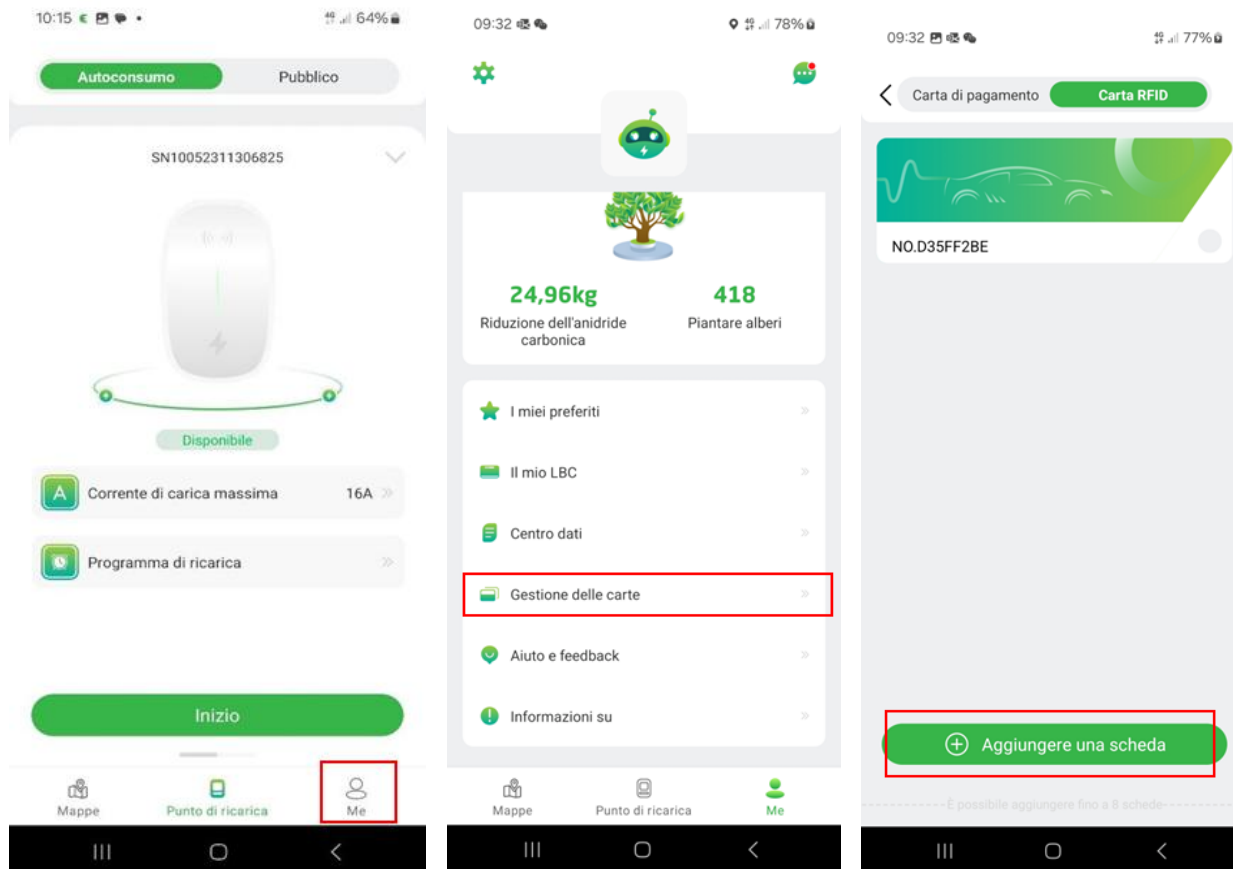
By selecting WiFi you will be asked to choose the network and enter the specific password. If the configuration was successful, you will have to display the charging station on **Available** as in the screenshot below.

To start charging from the APP press on **Start**, to stop charging press on **Stop**.



## 6.4. Configure RFID cards

To add RFID cards press on *Me, Card Management, Add a Card*. Once added, the identification code above will appear.



## 7. Operations

Once the charging station is installed, follow the next steps to test the operation.

### 7.1. Descrizione indicatori

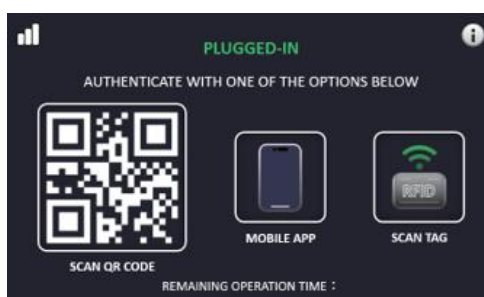
Indicatore	Descrizione
The yellow indicator stays on	The charging connector has been inserted.
The green indicator stays on	Stand-by
The red indicator stays on	Error
Flashing yellow indicator	Alarm (charging connector has been inserted)
Flashing green indicator	Alarm (stand-by)

### 7.2. LCD Information

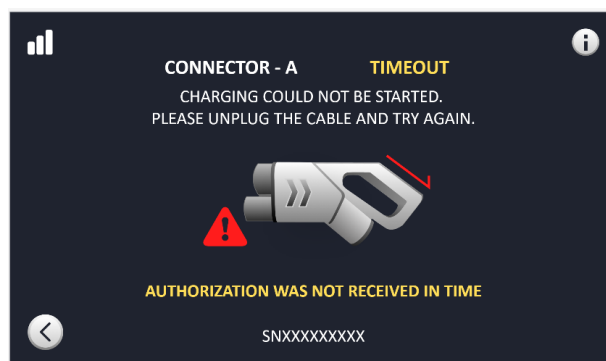
- Standby/Home page at startup



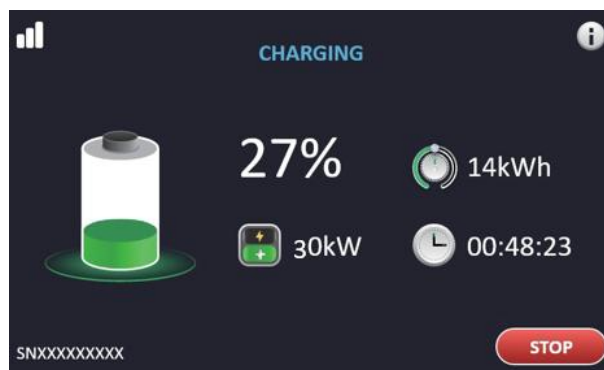
2. Plug the connector into the EV's charging socket and select the start modes.
- With Evcharge App: Use the app to start the charging session.
  - With RFID card: Use the configured RFID card to start the charging session.



Select boot mode before the remaining operating time ends, otherwise the operation will fail and the user will have to remove the connector before inserting it again.

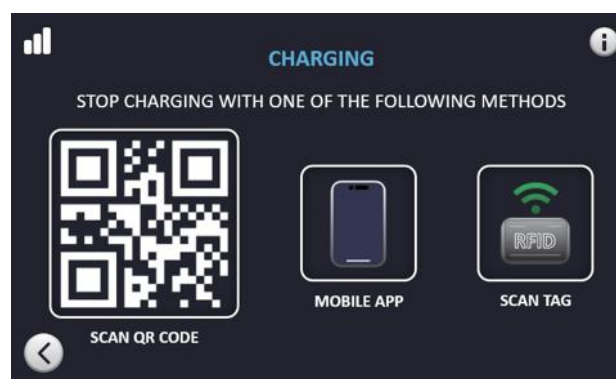


During the charging session, the charging information is displayed.

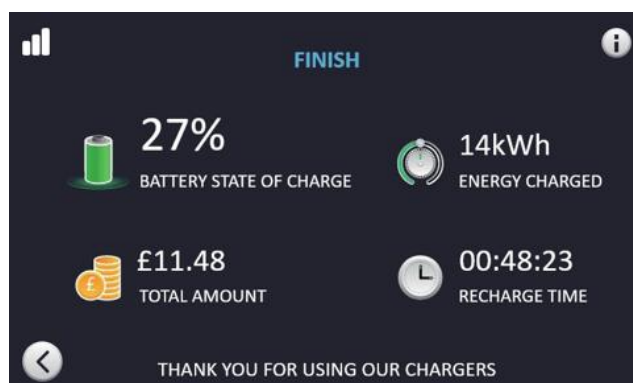


The user can end the charging session in the same way as it was started:

- RFID Card
- APP Evchargeo



Payment information as shown.



### 7.3. Pre-boot checks

The operation of this charging station must be carried out in accordance with the test instructions below. All instructions given below are necessary and must be adhered to by the user of the charging station.

After transportation and installation, check the following:

Controls	Execution
Mechanical visual inspection	Perfect mechanical condition of all installed devices.
Screw connections, tightly tightened	Random or complete verification of tightening torques on terminals and mechanical screw connections.
Earthing system	Check if the grounding takes into account the specific conditions of the site as well as the standards in force.
Lightning protection for power lines	Check whether the power line is equipped with a lightning protection device in accordance with IEC 61851-1 and country-specific standards.
Check on and off AC input side	Use the multimeter to check the voltage and current on the AC input.
Operating Conditions	Consideration of the operating conditions on the installation site (e.g. mechanical, chemical, corrosive stress) in accordance with IEC 61851-1 and in the event of deviation from country-specific standards.
Residual current protection device (if present)	Check whether a residual current circuit breaker is required/has been installed outside the charging station, in accordance with site-specific conditions and applicable standards.
Check the charging cable, charging connector, and the outer surface of the cabinet.	Check the charging cable, charging connector, and outer surface of the cabinet for damage and scratches, etc.
Check the inside of the cabinet.	Make sure there is no residue, spare parts, etc., inside the frame.

## 7.4. Checks before first power-up

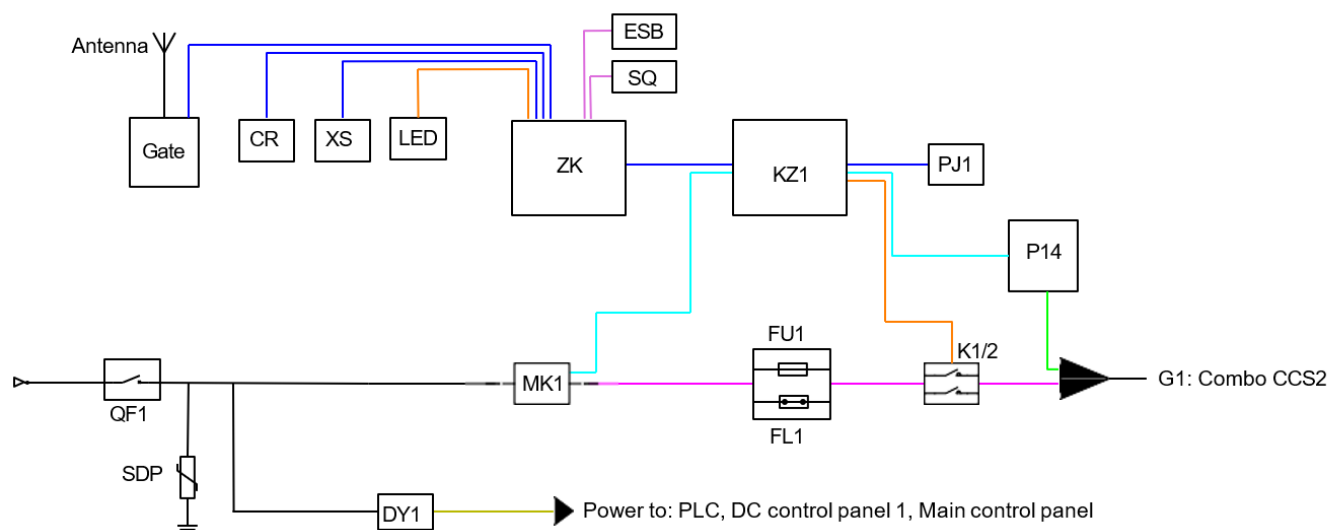
Controls	Outcome	
	Ok	Missing
External visual inspection of the charging station (damage, defects)		
Stability verification		
Inspection of cable connections		
Fuse inspection		
Visual inspection of screw connections		
Is the inside of the charging station clean and free of condensation?		
Verification of air and leak lines		
Verification of buffer filters		
Correct mains voltages?		
Functional inspection of electrical protective devices		
Complete earthing system? Consistent potential equalization connections?		

## 7.5. Checks at the first power on





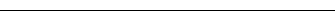
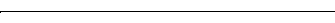
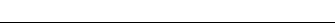


Controls	Outcome	
	Ok	Missing
Check for fan noise (if applicable)		
RFID Reader Functional Verification		
Check the screen operation		
Functional test of the emergency stop button		
Module Indicator Light Verification (Green)		
Checking the charging connector (dry)		



## 8. Annex - Outline of the working principle



<b>QF1</b>	Circuit breaker	<b>ZK</b>	Main Control Panel
<b>SPD</b>	Voltage Limiter	<b>KZ1</b>	DC Control Panel
<b>DY1</b>	Auxiliary switching power supply	<b>P14</b>	PLC
<b>MK1</b>	Power Module	<b>G1</b>	Charging cable
<b>K1/K2</b>	DC contactor	<b>XS</b>	Screen
<b>FU1</b>	Fuse	<b>CR</b>	Card reader
<b>FL1</b>	Derivation	<b>ESB</b>	Emergency stop
<b>PJ1</b>	DC Wattmeter	<b>SQ</b>	Input control
<b>LED</b>	Scheda luce LED		

COLOR	DESCRIPTION
	AC Power Line
	DC (High Voltage) Power Line
	CAN communication line
	Serial Interface Communication 485, 232, 4222
	Control Line
	PWM Line
	Feedback
	PLC Communication Line
	DC Power Line (Undervoltage)

## 9. Indicatore LED

There are 2 LED indicators at the interface of the charging station.

State	Description	LED status
Standby	Power on, no connector inserted	Green light on normally
Ready to charge	Connector inserted, no charge still started	Flashing yellow light at 1S intervals
Incumbent	Charging started	Flashing green light a 1S intervals
Charging stop	Charging stop with connector inserted	Yellow light on normally
Error	An error occurred	Red light on normally

## 10. Technical Datasheet

TECHNICAL DATA		DC030K-E2C22-75
<b>Input</b>		
Power supply	3P+N+PE	
Rated voltage	400V AC	
Rated current	48A	
Frequency	50/60Hz	
<b>Output</b>		
Output voltage	200V-1000V DC	
Maximum current	80A	
Rated power	30kW	
<b>User interface</b>		
Load connector	CCS2	
Cable length	5m	
Housing	Galvanised steel	
LED indicator	Green/Red/Yellow	
LCD display	Colour touch screen 4.3"	
RFID reader	Mifare ISO/IEC14443 A	
Startup mode	RFID card/App/Plug&Play	
<b>Communication</b>		
WiFi	Yes	
Ethernet	Yes	
Connectivity	OCPP 1.6 Json	
Meter	Yes	
<b>Safety</b>		
Emergency button	Yes	
Input protection	IP54	
Impact protection	IK10 (w/o screen)	
Electrical protection	Over-current protection, Residual current protection, Over-voltage protection Over/Under-voltage protection, Over/Under frequency protection. Over-temperature protection	
Certification standards	EN IEC61851-1:2019, IEC 01851-1:2017, EN 61851-23:2014, EN 61851-24:2014	
Certification	Efficiency: 94%	
Warranty	2 years	
<b>Environment</b>		
Installation	Wall/pole mounting (optional)	
Cooling method	Fan cooling	
Noise	60dB	
Working humidity	-30°C~+50°C, 5%-95%	
Working altitude	<2000m	
<b>Packaging</b>		
Product dimensions	707x560x217mm (WxDxH)	
Packaging dimensions	847x762x420mm (WxDxH)	
Net weight	35.3 kg	
Gross weight	40 kg	
Outer pack	Cardboard box	

## 11. Troubleshooting and maintenance

### 11.1. Troubleshooting

This section contains information and procedures on how to resolve any errors and faults that may occur during the operation of the charging station.

If you encounter any problems, do the following:

1. Check the alert messages and error codes on the device's information panel. Record them before you do anything else.
2. If the charging station does not show any error, perform the following checks:
  1. Is the device located in a clean, dry and adequately ventilated place?
  2. Are the cables correctly sized and as short as possible?
  3. Are the connections in good condition?
  4. Are the configuration settings correct for the type of installation?

Information on the event list:

Code	Possible causes	Solutions
E000	Excessive temperature The control board is overheated	Check to remove possible heat sources near the charging station.
E002	Input overvoltage	<ol style="list-style-type: none"> <li>1. Check the input voltage.</li> <li>2. If the voltage exceeds 230Vac for a short time, wait until the mains supply returns to the normal voltage range.</li> </ol>
E002	Input voltage too low	<ol style="list-style-type: none"> <li>1. Verify the input voltage from the backend.</li> <li>2. If the phase voltage is below 230Vac for a short time, wait until the mains supply returns to the normal voltage range.</li> </ol>
E005	Excessive input frequency	<ol style="list-style-type: none"> <li>1. Check the inbound frequency from the backend.</li> <li>2. If the frequency is above 50Hz for a short time, wait until the mains supply returns to the normal voltage range.</li> </ol>

E005	Input frequency too low	1. Check the inbound frequency from the backend.
		2. If the frequency is below 50Hz for a short time, wait until the mains supply returns to the normal voltage range.
E007	DC leakage current is abnormal	
E008	Emergency stop	Check if the emergency button has been pressed, then correct the error and reset the emergency stop button.
E010	The RCD value is abnormal	
E011	The inlet side terminal is overheated	
E014	Relay adhesion	
E015	Grounding error	Check that the grounding wires are properly connected.
E016	Line L1 and line N on the entrance side are connected in reverse	
E017	AC RCD circuit fault	
E022	Meter communication error	
E023	CP voltage error	
E024	Output overvoltage: The required voltage set exceeds the maximum output voltage of the charging station	


E025	The set required current exceeds the maximum output current of the charging station	
E027	DC Connector K1/K2 Error	
E031	DC leakage current is abnormal	
E032	The voltage during the insulation test phase did not meet the requirements.	
E033	The K5K6 vehicle contactor is detected to be closed prior to isolation.	
E038	The charging connector is overtemperature	
E040	The battery voltage is incorrect	

E041	Power module address error	
E043	The output of the power module is short-circuited	
E044	The power module is not enabled, it is not available	
E048	The main control board is overheated	
E053	The output voltage exceeds the maximum allowable voltage of 110% for 200ms.	
E054	Door access control failure	
E055	Card Reader Communication Error	

E056	Screen communication error	
E057	Communication error between the main control board and the control board	
E059	The insulation resistance is too low and charging is not allowed	
E061	Excessive deviation of the required voltage from the voltage of the charging connector (> output required)	
E062	CP signal is abnormal when charging	

**Note:** If the above problems cannot be resolved, please contact your dealer.

## 11.2. Maintenance

	<p><b>Servicing must be performed by qualified personnel. For servicing non-electrical components, disconnect power first</b></p>
<b>Attention</b>	



For the safe operation of the fast charging station, regular maintenance or checks of the safety devices are required. All the points listed below are considered mandatory and must be carried out by the operator according to the intervals indicated.

The following table gives an overview of the maintenance work required. Depending on the individual operating conditions of the fast-charging station, additional maintenance may still be required, so the list cannot be considered exhaustive.

Maintenance	Execution	Interval
Charging cable	Replacing the entire charging cable	Every day
Residual current devices	Residual current circuit breaker function test, Open the service door and press the indicated circuit breaker button on the bottom of the fast charging station.	Once a month
Mains switch, voltage release switch	Check for proper operation	Every six months
Verification of Protective measures	With the charging station turned off, check the resistance between the power supply ground and all externally accessible, non-insulated cabinet components (housing, add-ons, screws)	Every three months
Check for cleanliness and condensation	Check if the inside of the control cabinet is clean and free of traces of condensation. Check the water flow on the cable and cable socket support Charging connector Check the gasket for damage and correct the position.	Every day

Screw and Latch	Random or complete verification of tightening torques on terminals and mechanical screw connections. Check if the fastener is stuck or damaged and if the fixing screws are loose.	Every day
Overtoltage protection	Verify that the surge protector is working properly	Every six months
Ventilation filters	Replacing filters (Depends on the working environment)	It depends on the work environment.
Charging cable	Check if the charging cable is in perfect condition. Make sure that all parts of the cable (cable, connector, pins, cable sleeve, locking mechanism) are free from dirt, fractures, breaks, traces of wear, burns or other damage. Also check that the insulation is intact and that all screws are tight.	Every day
Cleaning the charging station	Clean the outer surface of the charging station regularly.	Depending on the work environment External cleaning and inspection may be required more regularly than other maintenance work.
Emergency Stop Functional Test	Press the emergency stop button and the code "E008" displayed on the screen.	Once a month

## 12. Disassembly and disposal

The packaging materials are environmentally friendly and can be recycled. Therefore, they can be disposed of in special recycling bins in accordance with local waste disposal regulations. However, the charging station may not be disposed of as household waste, but must be treated as special waste. It must be disposed of at authorized facilities to dispose of electrical and electronic products. For more detailed information on the disposal and recycling of this product, please contact your local office, waste disposal service or the retailer where you purchased the charging station.

### 1. Uninstalling

1. Disconnect the charging station from the AC mains
2. Remove the AC terminals
3. Remove any communication links
4. Unscrew the fixing screws and remove them from the metal part or the stand

### 5. Packaging

If possible, pack the charging station in its original packaging.

### 6. Storage

Store the charging station in a dry place where the ambient temperature is between -25°C and +60°C.

### 7. Disposal

At the end of its useful life, dispose of the charging station and packaging materials in locations that can safely handle and recycle electrical devices.



If present, the crossed-out wheeled bin symbol indicates that the product should not be disposed of in household waste at the end of its useful life.

This product must be delivered to the waste collection point in your community recycling room.

For more information, please refer to the body responsible for waste disposal in your country. Inadequate waste disposal can have negative effects on the environment and human health due to potentially hazardous substances.

By cooperating in the correct disposal of this product, you contribute to the reuse, recycling and recovery of this product, as well as to the protection of our environment.

## 13. Guarantee

Zucchetti Centro Sistemi SpA offers a 2-year warranty from the date of installation of the charging station, upon registration on the [https://www.zcsazzurro.com/it/estensione-garanzia\\_website](https://www.zcsazzurro.com/it/estensione-garanzia_website). During the warranty period, Zucchetti Centro Sistemi S.p.A. guarantees the normal operation of the charging station.

If the device is defective or failed during the warranty period, please contact the installer or supplier. If the fault falls under the responsibility of the manufacturer, Zucchetti Centro Sistemi S.p.A. will provide assistance and maintenance free of charge.

### Warranty Exclusions:

- Use of the charging station for any other use other than its intended use.
- Faulty or faulty system design or installation.
- Improper use of the device.
- Incorrect configuration of external protections.
- Unauthorized changes to the device.
- Damage caused by external factors or force majeure (e.g. lightning, power surges, bad weather, fire, earthquakes, tsunamis, etc.)