

Charging station APACHE 2x22kW



Manual Installation - maintenance - use 2021 v3.1

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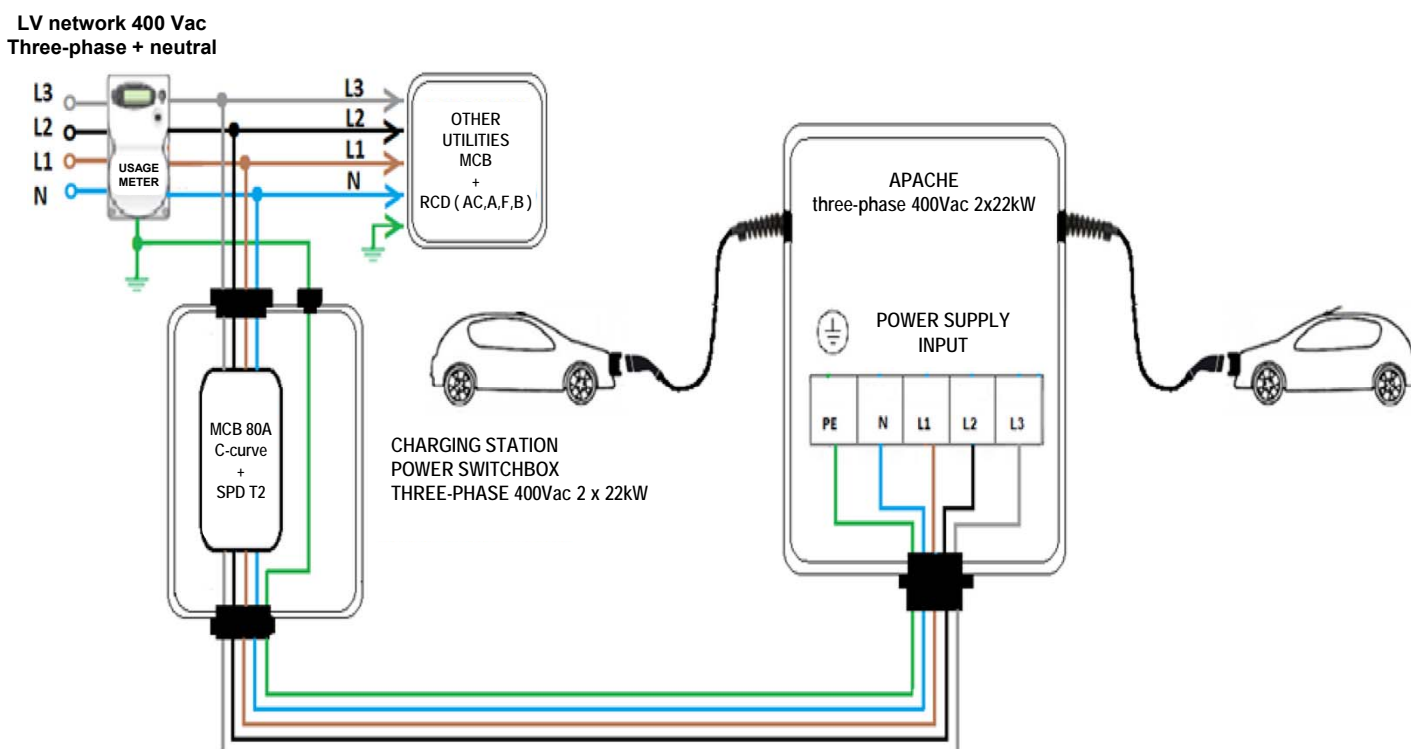


Before proceeding, read the instructions carefully to ensure a correct installation of the charging station.

The Station installation must be performed only by qualified personnel. During the installation and/or maintenance operations, remove input power and use protective gloves and goggles.

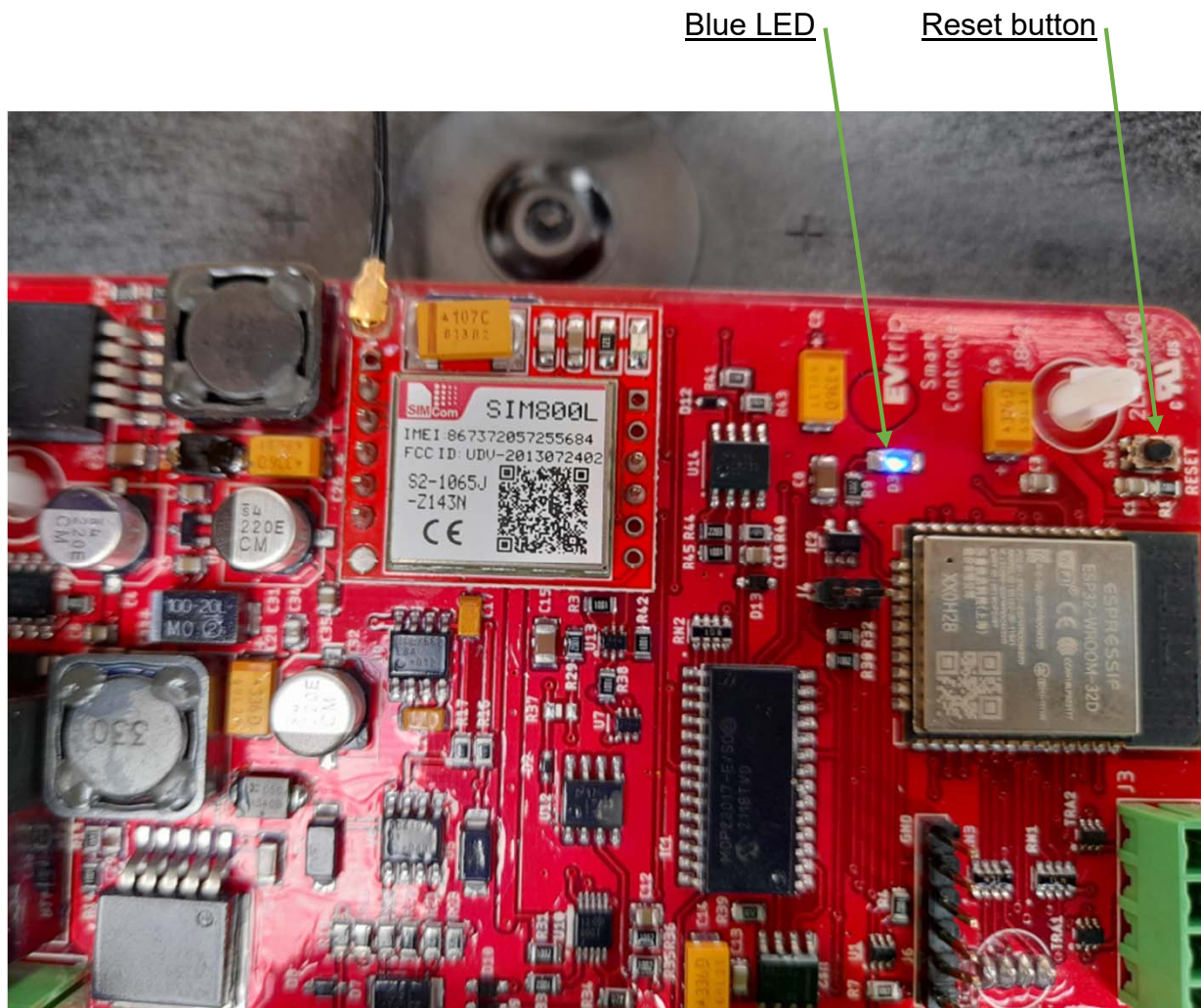
0 Preliminary operations (warnings)

1. Before proceeding with the Station installation, make sure that the power supply voltage corresponds to the nominal one, and that the quality of the supplied electricity is compliant with the EN50160 standard.
2. Install surge protective devices with an earth connection in the main power switchboard as prescribed by the installation zone according to the EN62305-1/4 standard.
3. At the end of the installation, use an appropriate instrument to verify the earth connection's correctness.
4. Make sure that the Station is installed in an area with GSM network coverage or a Wi-Fi connection. It is a necessary condition for a correct product's operation.
5. Full protection via 30mA B-type residual current breakers (RCD) for each output (A and B sides) is integrated within the charging station, so no breaker is necessary in the power switchboard.
6. It is compulsory to follow the schematics below during the installation process.



Note: the station must be connected before the protections of the other appliances.

7. At the first activation, the installer has to call +39 0302594120 to verify and proceed with the Station's registration, otherwise it will not function.
8. In case the Station is not working, disconnect the power supply, wait for 20 seconds, and power it up again.
9. If the blue LED on the Station's board is not blinking, push RESET for 1 second to make it blink again. Otherwise, call +39 0302594120 and request support.
10. To activate the load splitting function, request support at +39 0302594120.



1) INTRODUCTION

This manual contains all the necessary information for the safe use of the **Detas EVchargers Apache** system for electric vehicle charging and will guide you to obtain the best performance and use from the system.




Our **Detas EVchargers Apache** charging stations employ the latest technology and provide the most advanced service on the EV charging market.

The **Apache** charging station is designed to be easily installed both outdoors and in covered private parking lots, in order to charge all the EV brands on the market in MODE 3 (according to the European IEC 61851-1 standard), simply by plugging the connection cable with a type-2 connector.

2) SAFETY INFORMATION


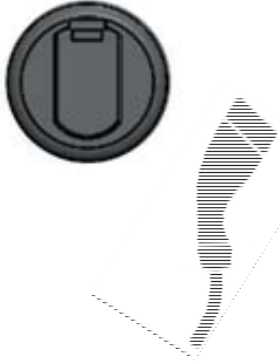





- The charging station must not be installed in areas with a risk of explosions.
- The charging station is designed to be installed both in open and closed areas. It must always be installed safely and with suitable protections.
- In case the charging station is installed outdoors, it is recommended to employ a roof for direct protection from water.
- Do not install the charging station in areas where it can be damaged by falling objects.
- The wall surface where the charging station will be positioned must withstand the mechanical forces to which it is subjected.
- Do not employ this charging station for purposes other than electrical vehicle charging uses indicated in the IEC 61851 standard.
- Do not modify the unit. In case of modifications, **Detas EVchargers** will reject all responsibility and the warranty will become invalid.
- Follow the electrical safety standards rigorously.
- Do not attempt repairs or manipulations with the charging station connected to electricity.
- Only trained and qualified personnel has access to the low-voltage electrical components inside the device.
- Make qualified technicians only check the charging station every year.
- Remove any item with signs of damage that can be dangerous for a human (broken plugs, lids that do not close, etc...).
- Use only **Detas EVchargers** replacement parts.
- Do not use this product if the EV latch or connector is broken, cracked, open, or showing signs of damage.
- Before proceeding with the installation, make sure that the power supply voltage corresponds to the nominal one for the device and that the quality of the electricity supplied to the Station is compliant with the EN50160 standard.
- Install surge protective devices with an earth connection in the main power switchboard, as prescribed by the installation zone according to the EN62305-1/4 standard.

3) NOT INCLUDED INSTRUMENTS REQUIRED FOR THE INSTALLATION

N°1 Flat screwdriver	N°1 Electric drill	N°1 wall drill bit D12mm	N°1 CH12 wrench
			

4) INCLUDED OPTIONAL ACCESSORIES

According to the customized choice, you will find a type2 cable connection or a T2 socket

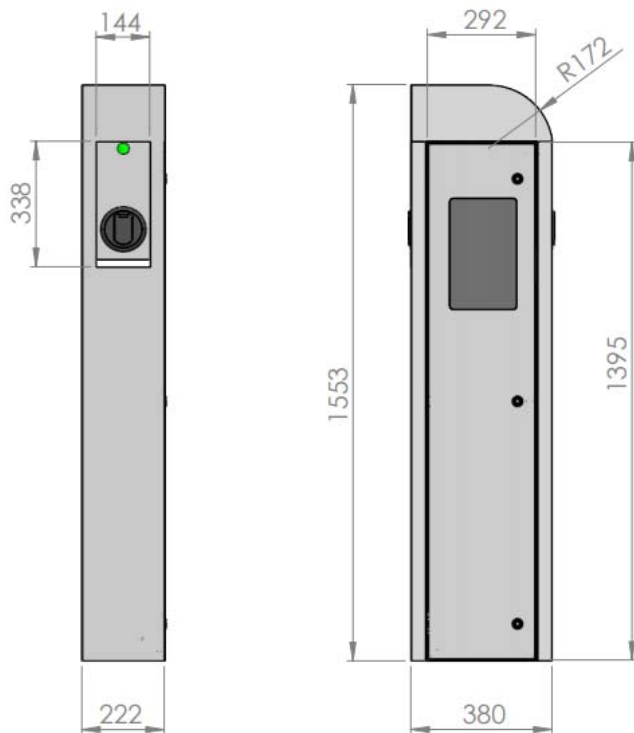
Steel locker	T2 plug with shutter / 5mt cable with type 2	Door key	Floor anchoring fixations			
			Nut	Plate	Washers	Rods
			 M12			
N°1	N°2	N°3	N°4	N°1	N°4	N°4

5) PRODUCT OVERVIEW

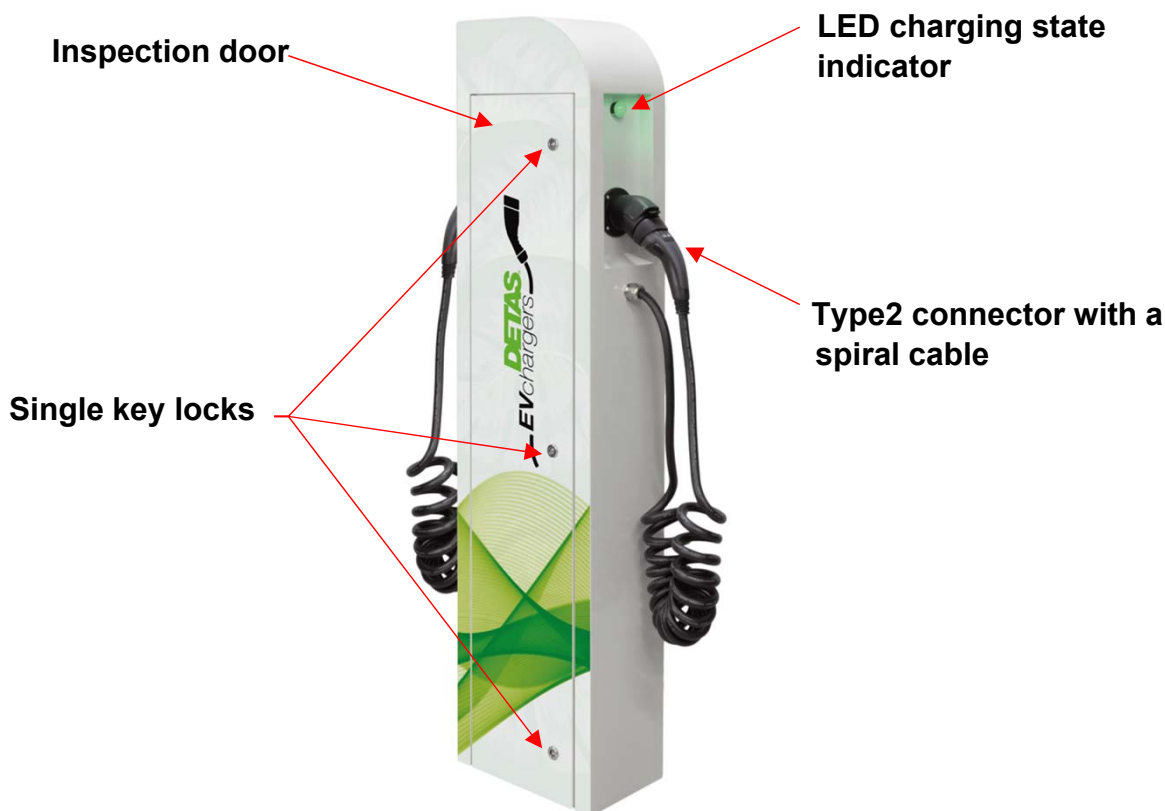
5.1 Features

The APACHE charging station is compatible with mode 3 AC charging standards according to IEC 61851 – It enables charging from a mobile app which includes information regarding measurements, alarms, charging logs, etc. – It includes LED indicators of power supply, charging state and failure, as well as safety SPD for atmospheric surge protection. Each output is protected from overloads via a C-curve magnetothermic circuit breaker and from residual currents via a B-type residual current breaker.

5.2 Outer dimensions



5.3 View

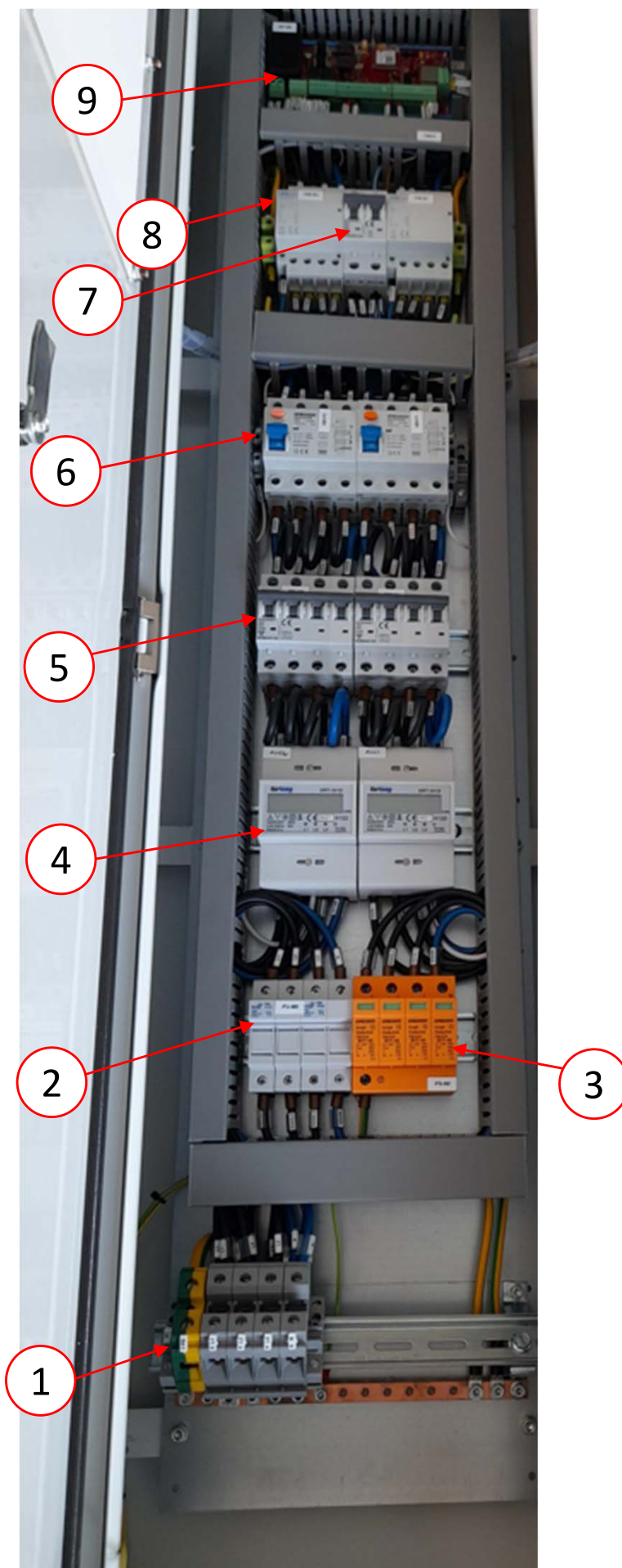


5.4 Components description

1. Power supply terminals
2. Fuse holder
3. SPD
4. Three-phase MID certified meter
5. 4-pole C-curve 40A magnetothermal circuit breaker
6. 4-pole 40A 30mA B-type pure residual current breaker
7. 2-pole 6A C-curve magnetothermal circuit breaker
8. Contactor
9. Control board

Electric protections included within the Station:

1. Fuse holder
2. SPD
3. 2 x 4-pole C-curve 40A magnetothermal circuit breaker
4. 2 x 4-pole 40A 30mA B-type pure residual current breaker
5. 2-pole 6A C-curve magnetothermal circuit breaker



5.4) Specifications

Supply voltage: three-phase with neutral 400VAC \pm 10% 50/60Hz (L1, L2, L3, N, PE)

Mechanical resistance: IK10

Protection degree: IP54

Housing material: zink-plated steel RAL7035

Operating temperature: from -25°C to +45°C

Storage temperature: from -40°C to +60°C

Operating humidity: from 5% to 95% without condensation

Signaling: RGB color indicator

Network connection: GSM / WiFi

Payments enabled: on request

Front lock: key

Charging control: Mode 3 according to IEC 6181

Dimensions: 380 x 1553 x 222 mm

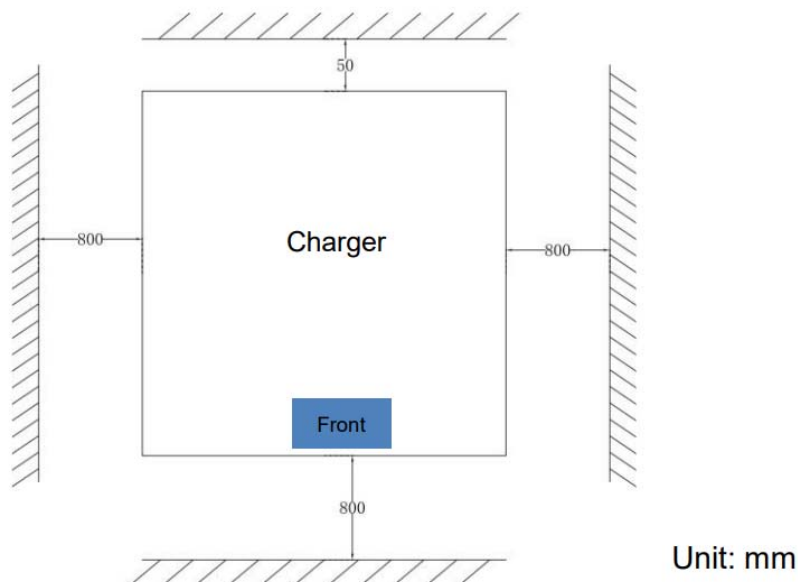
Weight: 30 kg

6) MECHANICAL INSTALLATION

Note:

- Verify that the floor is level.
- Leave a suitable ventilation distance on each side of the charging station structure (6.1).
- Avoid placements with direct sunlight or hot air exposure.
- Make sure that the operating temperature is normal and the altitude is not above 2000 m.
- Keep the environment clean and dry. Avoid humidity, flammable gases and liquids, as well as corrosive substances.
- The charging station can be fixed to the floor (see 6.1) or it can rest on a custom-made, previously built plinth (see 6.2).

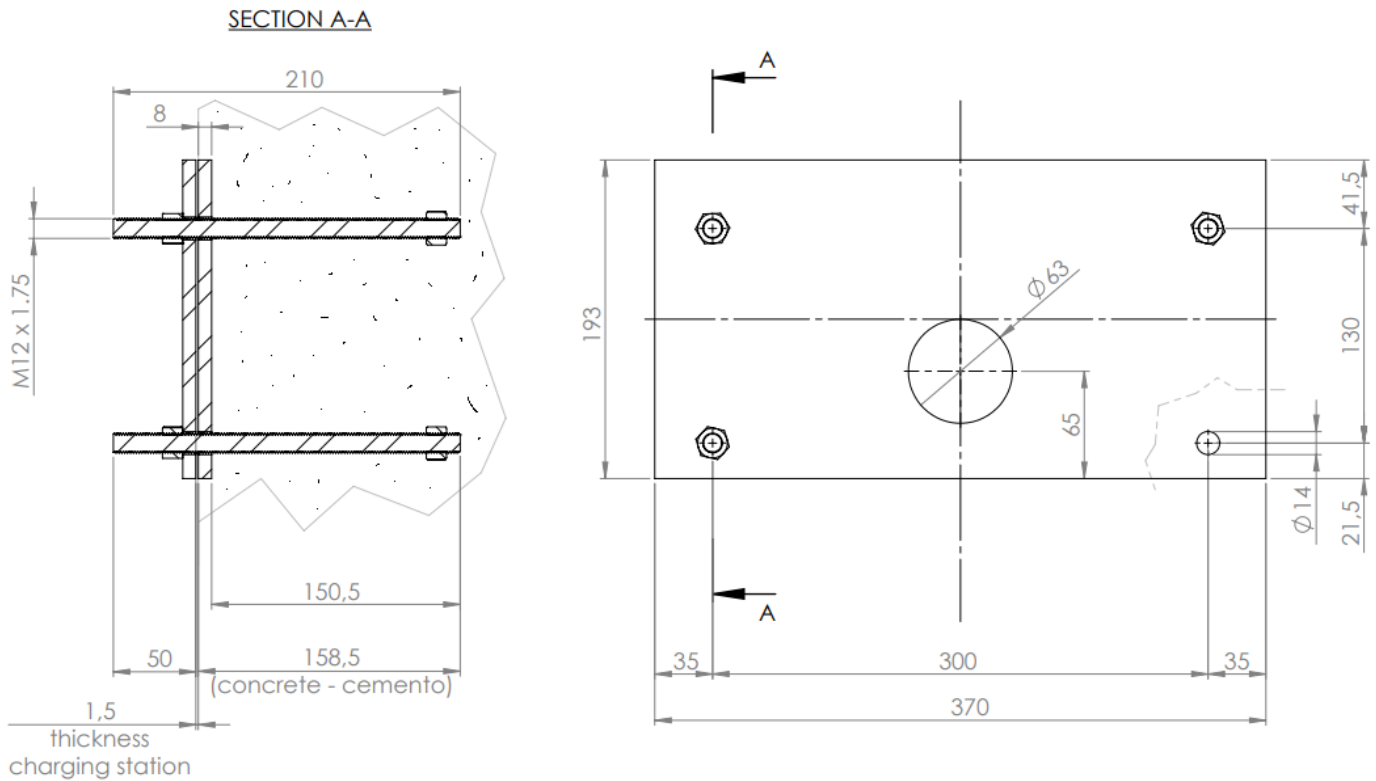
6.1 Positioning



6.2 Floor installation method

Steps:

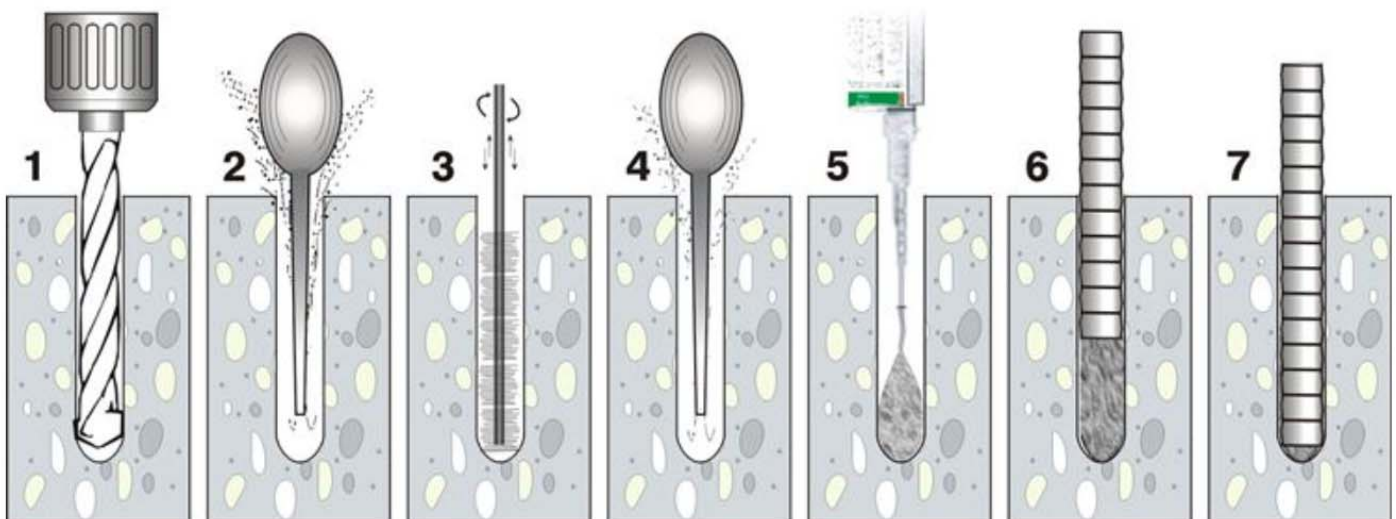
1) Refer to the drilling dimensions in the drawing below or use the plate for the charging station's internal fixation as a reference to mark the drilling holes.



Notes:

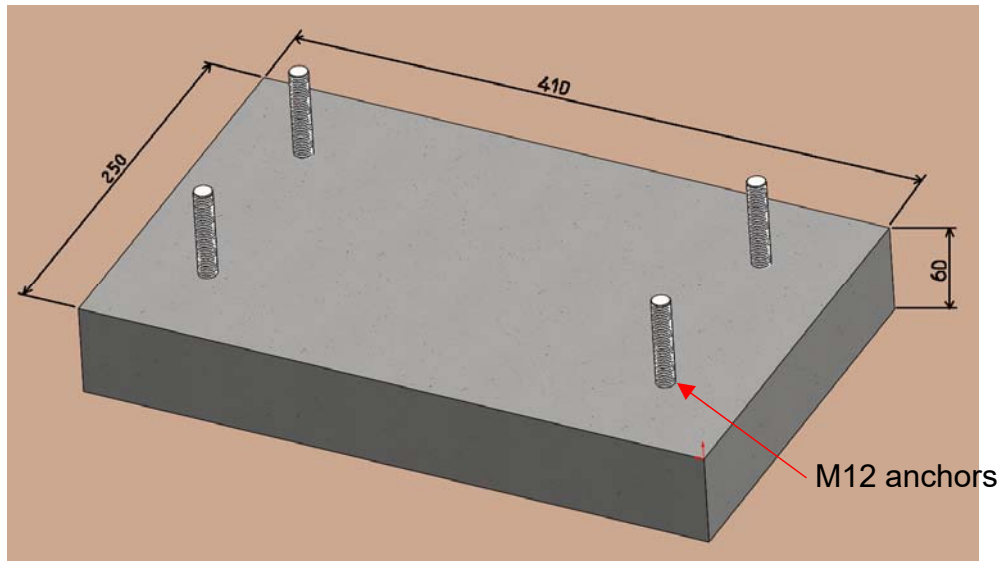
drill holes must be made accurately and precisely to guarantee a correct coupling

2) After accurately drilling the holes, insert the provided M12 anchors and secure them with a chemical anchoring agent following the steps below:



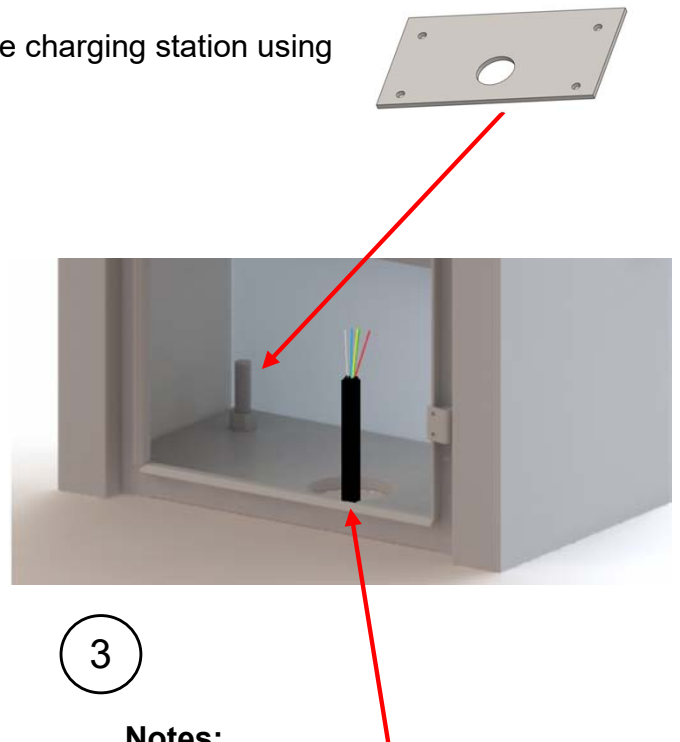
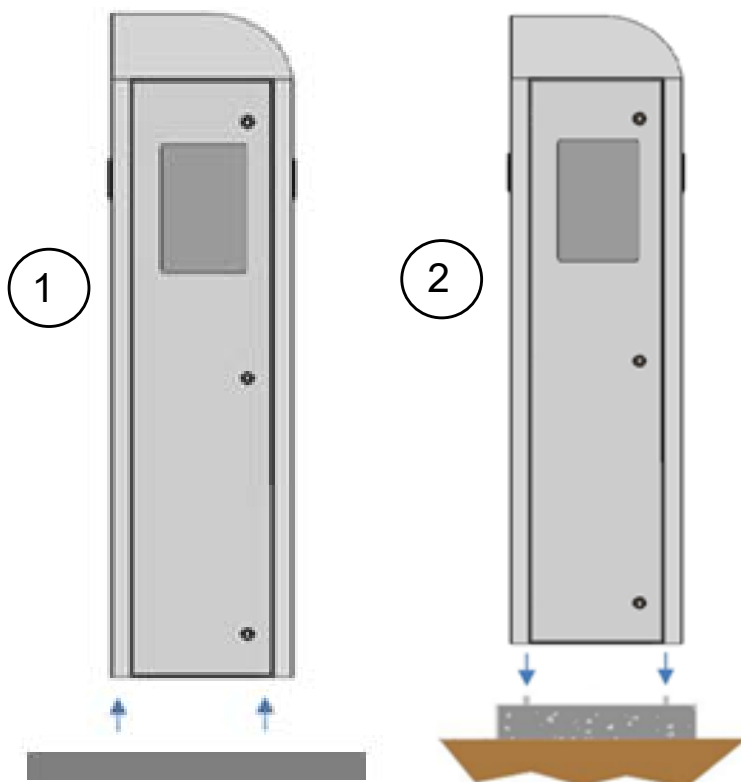
6.3 Concrete plinth installation method

Build a concrete plinth according to the dimensions below:



6.3 Positioning of the charging station

- 1) Lift the charging station
- 2) Place the charging station on the concrete plinth or on the ground (concrete floor) in its final position by centering the holes at the bottom of the station.
- 3) Fasten the provided plate at the bottom **inside** the charging station using M12 nuts.





Notes:

- The crimped input tube for power supply cables must enter into the charging station from its bottom.

7) SYSTEM'S ELECTRICAL CONNECTION

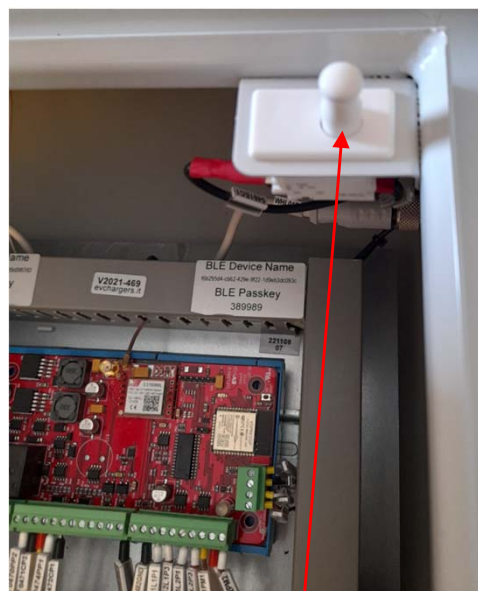
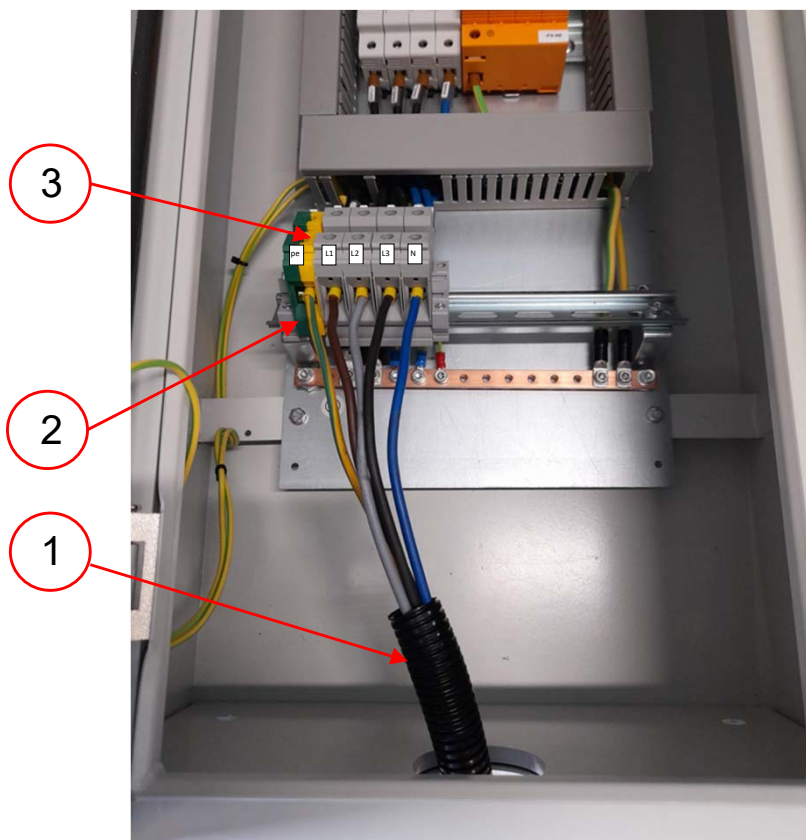
7.1 Power Supply Cabling

 During cabling operations, make sure that AC power supply is interrupted from the main switch (MCCB or fuse) and that no voltage is applied.

 All the connection/installation operations must be performed by qualified electrical personnel. Verify that all the electrical components are in good conditions.

Steps:

- 1) Put the AC power supply cable (inserted within the crimped tube) through the bottom of the charging station from the dedicated entrance hole in the concrete support.
- 2) The terminal block for AC power supply cabling – three phases + neutral + PE – is compatible with cables up to 35 mm².
- 3) Verify that all the safety labels are correctly positioned.
- 4) Close the the charging station's door. The charging station has a safety switch that will interrupt any charging session when the door is opened. While the door remains open, charging is suspended and the LED indicator turns red.



4

8) SYSTEM TURN-ON

Steps:

1) Enable the three-phase magnetothermic circuit breakers

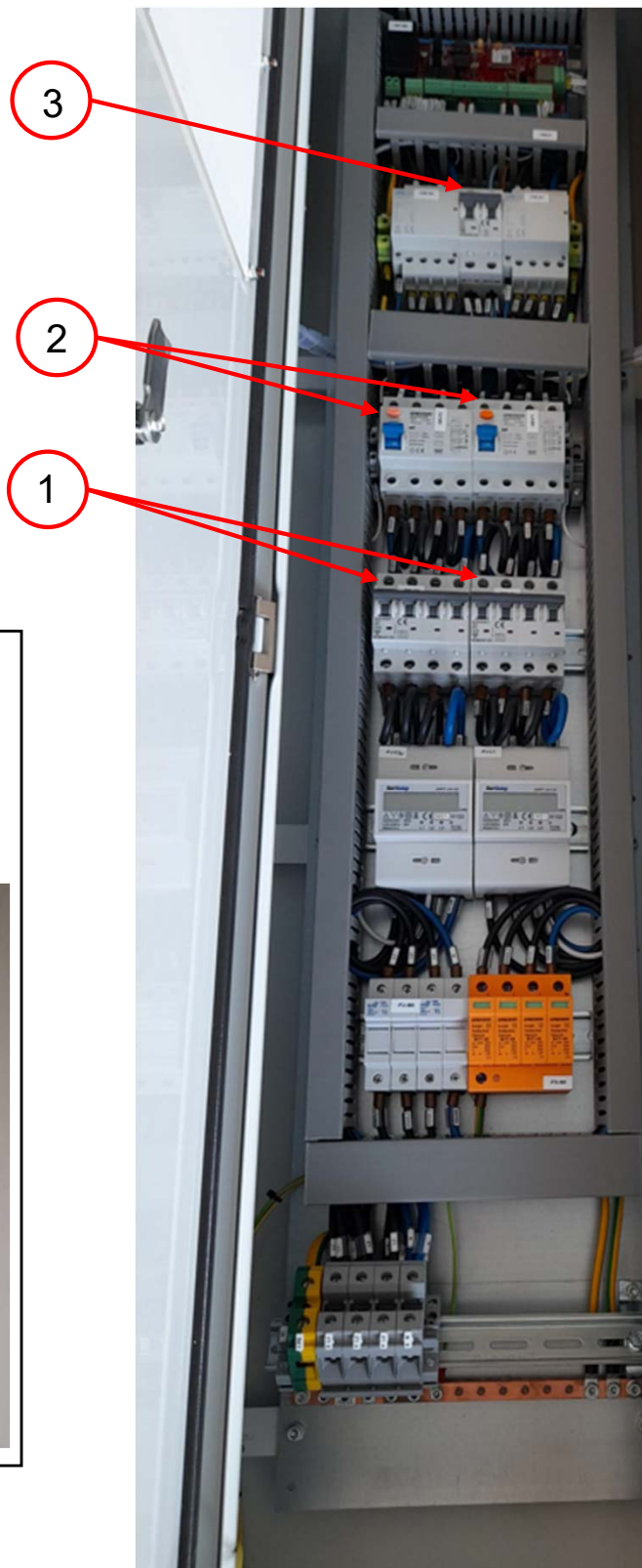
1

2) Enable the indicated RCDs

2

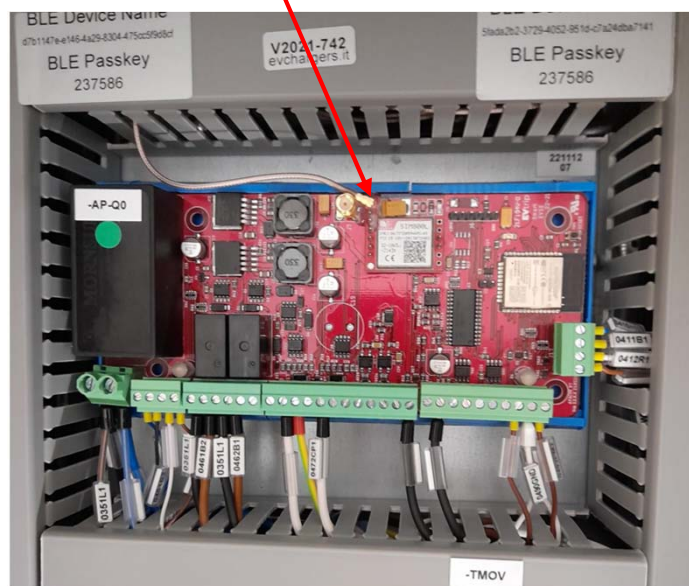
3) Enable the single-phase magnetothermic circuit breaker

3



Note:

Verify that the antenna is correctly inserted into the appropriate connector and that it has not detached during transportation



9) CHARGING INTRODUCTION

9.1 Features

The Apache station can be configured with spiral cables and connectors or sockets with or without a shutter, up to 2x22kW.

The standard version is manufactured with type 2 cables and connectors, or type 2 shutter sockets. The charging station's connectors comply with the EN 62196 standard.

According to the client's request, various models can be provided, such as plug & charge versions or versions with control electronics.

High quality materials ensure a long lifespan and withstand the most harsh environments.

The wide frontal side is suitable for graphical design customization with client's labels.

On request, the station can be provided with OCPP1.6 control.

TYPE 2



MAX 63A 400V



9.2 Charging state LED

The luminous operation of the charging state indicator helps the user executing charging operations day and night. The indicator lights up with three colors: red, blue, green.

Indications:

- 1) A red light represents a malfunction or alarm status. If no connection is available, this light turns on, while it does not appear when the charging station is operating normally.
- 2) A green light means that the charging station is in standby, correctly connected to internet via GSM or WiFi, and ready for connection to an electric vehicle.
- 3) A blue light indicates that the charging station is correctly connected to the electric vehicle and is currently charging it.



LED state indicator

10) CHARGING PROCEDURE

(10.1)

Verify that the LED indicator is green, meaning that the unit is available and ready for charging



(10.2)

Model with a cable

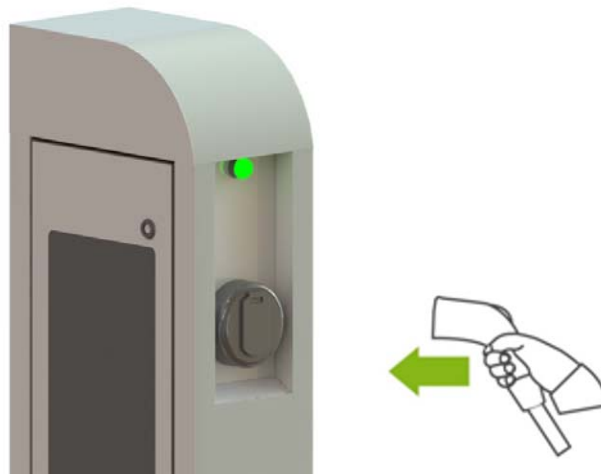
Connect the cable to the vehicle to start charging



(10.3)

Model with a socket

Connect the cable to the socket and then connect the cable to the vehicle to start charging



11) APPLICATION SETUP

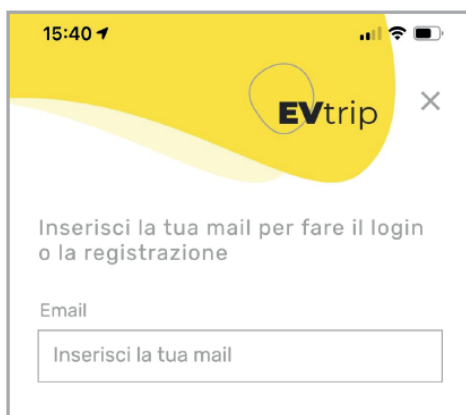
(11.1)

Download the **EvTrip** App from Play Store or Apple Store on your smartphone, or directly scan the following QR code:



(11.2)

Use your email address to register within the app.



(11.3)

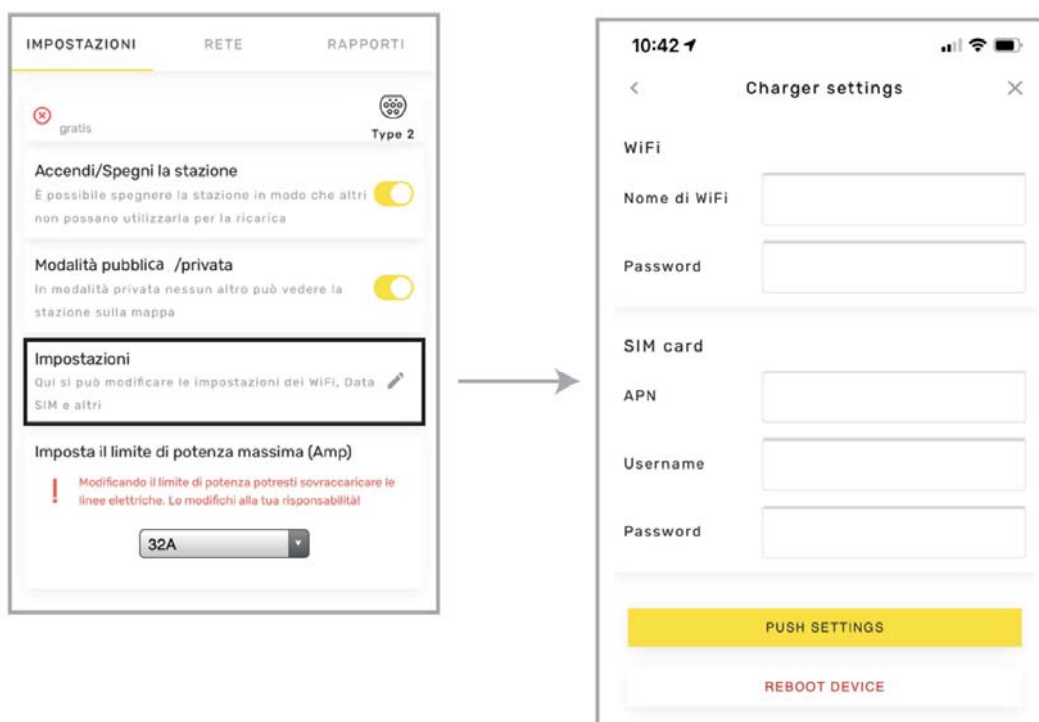
Send an email to info@evchargers.it indicating the following details:

- Name
- GPS coordinates
- BLE Device Name (a unique code located inside the charging station)

(11.4)

Connect the Station to the smartphone via bluetooth in order to manage its settings.

Note: During the pairing, it will be necessary to enter the “**BLE Passkey**” on the smartphone. This code is located on a label inside the Station.



(11,5)

Connect the charging station to the network using a WiFi connection or a data SIM card, if available.



Notes:

It will now be possible to set the output power, **the default value of which is 25A**

- The LED can be green or green/red (if no connection is available)
- Wait for 30 seconds
- Connect the cable to the car, the charging process will begin within 15 seconds and the LED will turn blue or blue/red (if offline)
- Stop the charging from the car or from the app

12) PERIODIC CONTROLS

The APACHE charging station has to be periodically verified by performing routine checks and maintenance operations.

In particular, daily maintenance contents and operations forbidden to unauthorized personnel are:

- It is forbidden to access the charger files or turn on/off the power supply for the non-professionals/not-in-charge personnel.
- Do not use floating cables, connecting cables or bridges.
- Verify the operating state of the charging station monthly regarding RCCB, switches, charge connectors, modules, etc.
- Use a dry cloth to wipe the connector dirt monthly, leaving the plug dry and clean.
- **Verify the tightening of all the cable connectors for all the internal components yearly.**

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Version 3.1 – September 2021