

WALLBOX PRIME Single-phase

SMART T2C-T2S models



Manual Installation – maintenance – use

V10

Content:

1	Introduction – Safety	Pg 3
2	Mechanical installation	Pg 4
3	Specifications	Pg 6
4	Preliminary operations	Pg 7
3	Component description	Pg 8
4	Electrical installation	Pg 9
5	Connections	Pg 11
6	LED indicators	Pg 13
7	Charging procedure	Pg 14
8	Power adjustment and app	Pg 15
9	Periodic controls	Pg 16

INTRODUCTION

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

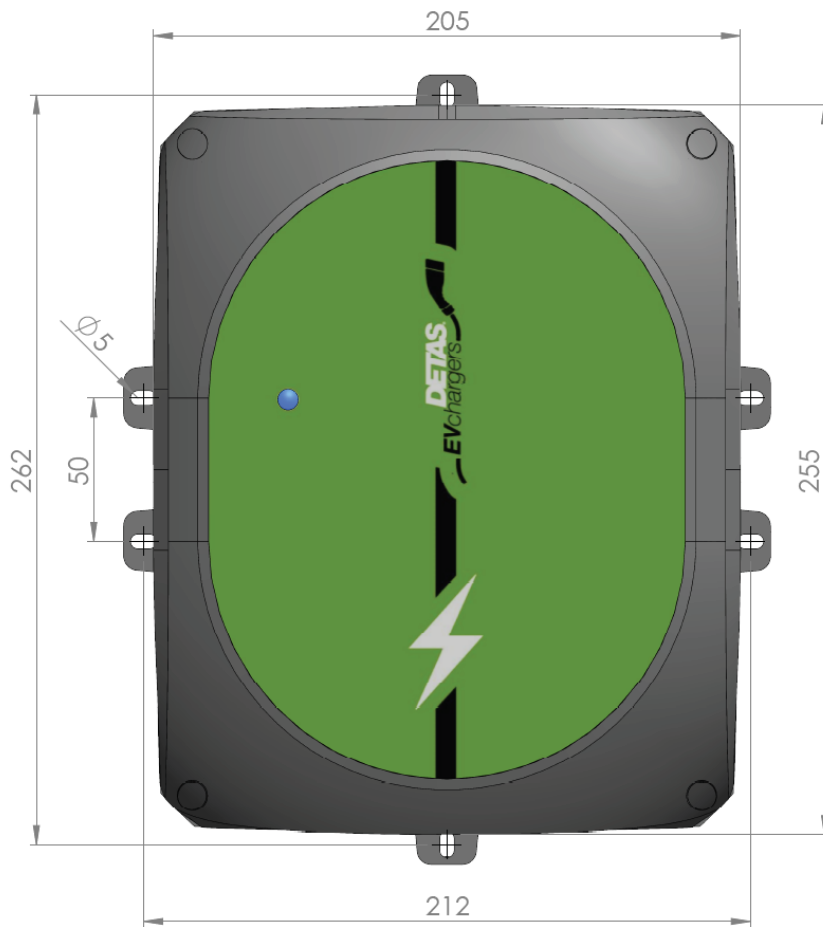
Our Detas EVchargers charging stations use the latest technologies and offer the most advanced service on the EV charging market.

The Wallbox Prime charging system is designed to be easily installed both outside and in private indoor car parks, in order to charge all EV brands on the market in MODE 3 (according to the European standard IEC 61851-1), simply by connecting the connection cable with a type 2 connector.

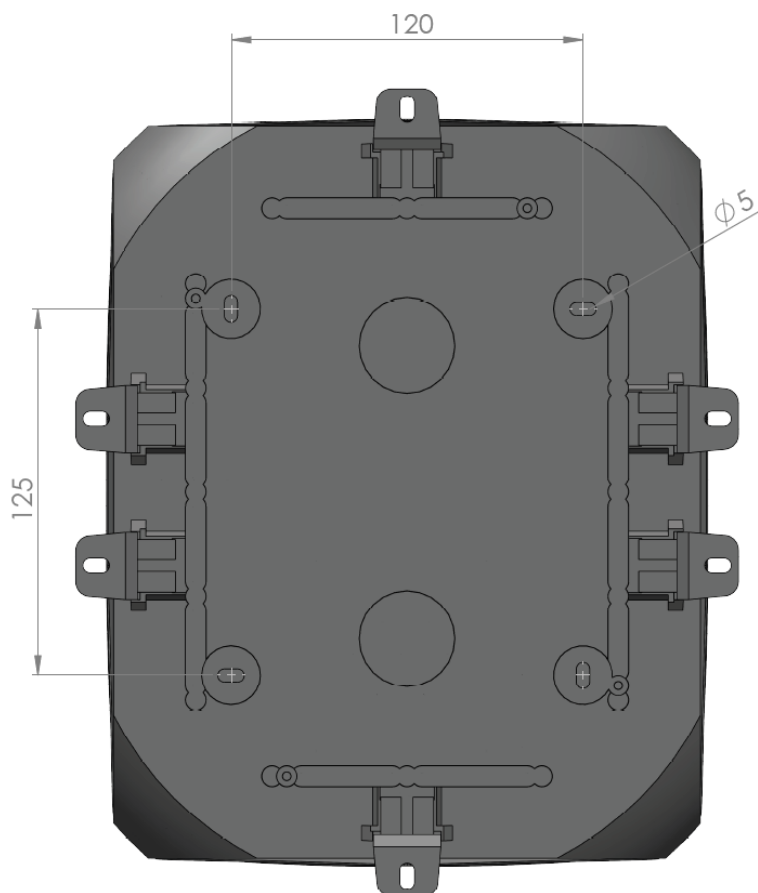
SAFETY

- The wallbox must not be installed in areas where there is the possibility of explosions.
- The wallbox is designed to be installed in both open and closed areas. It must always be installed safely and with appropriate protections
- If the wallbox has been installed outdoors, it is suggested to use a shelter for direct protection from water.
- Do not install the wallbox in areas where it can be damaged by falling objects.
- The wall surface where the wallbox is placed must withstand the mechanical forces to which it is subjected.
- Do not use this wallbox for any purpose other than the vehicle electric charging uses indicated by the IEC 61851 standard.
- Do not make any changes to the unit. In case of modification, EVchargers will refuse any responsibility and the warranty will be void.
- Strictly adhere to electrical safety regulations.
- Do not attempt repairs or manipulations with the wallbox connected to the mains.
- Only trained and qualified personnel have access to the low voltage electrical components present in the appliance.
- Have the wallbox checked annually by specialized technicians only.
- Eliminate any piece showing signs of damage that are dangerous for the person (broken sockets, lids that do not close, etc...).
- Use only Detas EVchargers spare parts.
- Do not use this product if the closure or the EV connector is broken, cracked, open, or shows signs of damage.
- Before proceeding with the installation, make sure that the power supply voltage corresponds to the rated voltage of the appliance and that the quality of the electricity supplied to the wallboxes complies with the EN50160 standard.
- Install the surge protection devices with earth connection in the electrical power supply panel, as required by the installation area according to the EN62305-1 / 4 standard

MECHANICAL INSTALLATION



**Front view
(external mounting)**



**Rear view
(internal mounting)**

MECHANICAL INSTALLATION

6.1) INSTRUMENTS REQUIRED FOR THE INSTALLATION (NOT PROVIDED)

N°1 Flat screwdriver	N°1 Philips screwdriver	N°1 Electric drill	N°1 Electric screwdriver	N°1 wall drill bit D9mm	N°6 Fischer M4
					

6.2) MECHANICAL INSTALLATION PROCEDURE

- ① Open the frontal screws. The correct screwdriver to be used is a small flat one, such that it can enter into the screw by insertion until the bottom of the slot, where the plastic is thicker.
If a large flat screwdriver is used, it will stop at the top of the screw, which can become damaged because there the plastic thickness is smaller.

- ② Open the lid towards the right by paying utmost attention not to tear the connection cables

- ③ Mount the Wallbox on the wall (see wall-mounting dimensions on page 8)



- A Using Fischer M4 / drill-bit diameter 9 mm wall anchors

Warning:

- It is recommended to use a screwdriver to execute the last fixation turns
- Make sure that the electric screwdriver does not damage the cables

- B Using the provided side brackets for a protrusion fixation



Notes:

The EV charging station mainly employs Type 2 sockets with shutter or cable.

The charging station connectors are compliant with the EN 62196 standard.

It is forbidden to lengthen/join the connector wires without authorization from the manufacturer.

No operations are allowed apart from those described in the present manual for solving plug-related problems.

TYPE 2



SPECIFICATIONS

Input voltage: single-phase 230VAC \pm 10% 50/60Hz (L,N,PE)

Output power: Max 7,4 kW (32A)

Mechanical resistance: IK09

Protection degree: IP65

Housing material: PC

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

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

Operating humidity: from 5% to 95% without condensation

Network connection: IoT GSM / WiFi

Signaling: RGB color indicator

Meters: MID certified

Payments enabled: On request

Dimensions: 205 x 255 x 112 mm

Weight: 4 kg

Pedestal for wallbox: On request

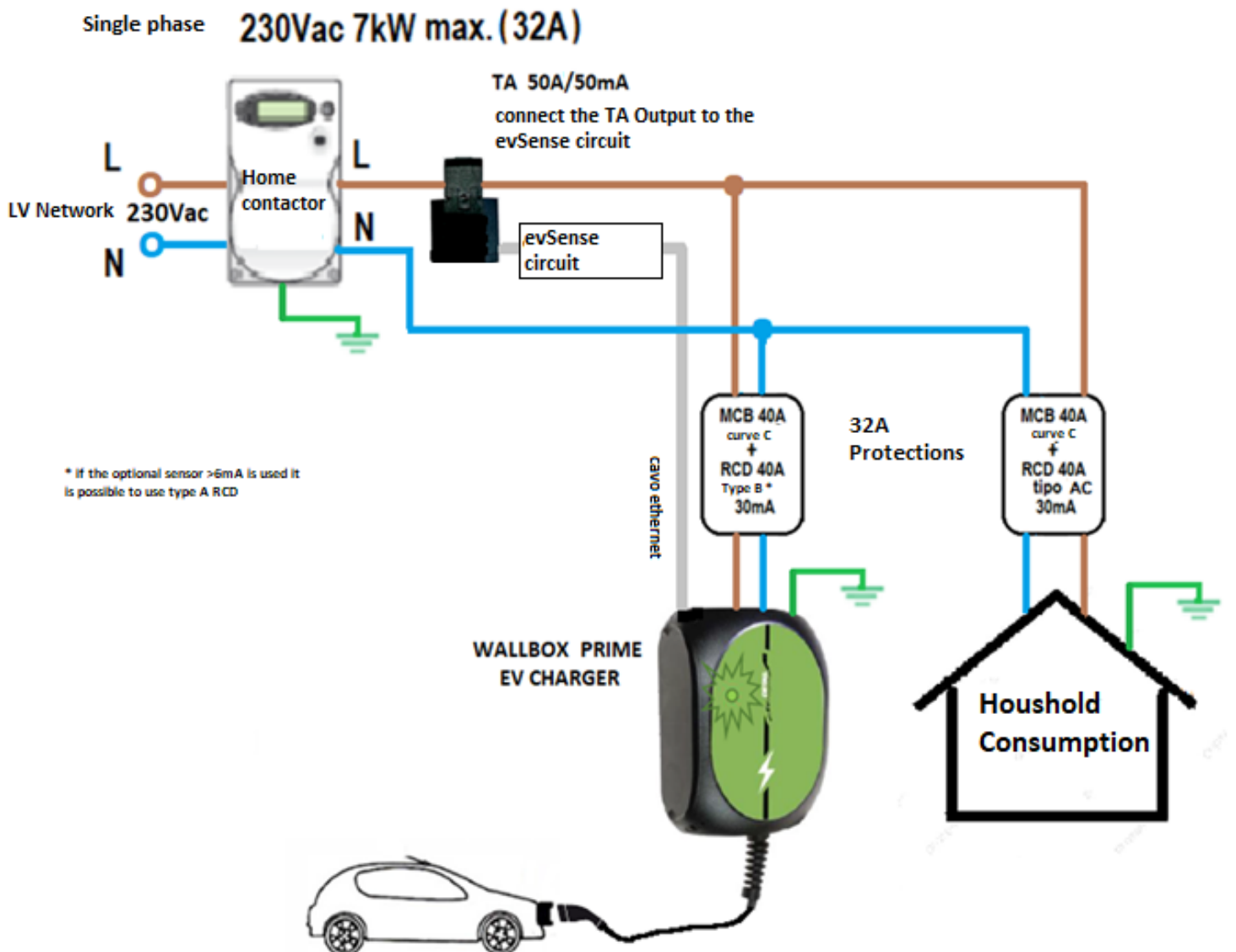


Before proceeding, read the instructions carefully to ensure a correct installation of the charging station.

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

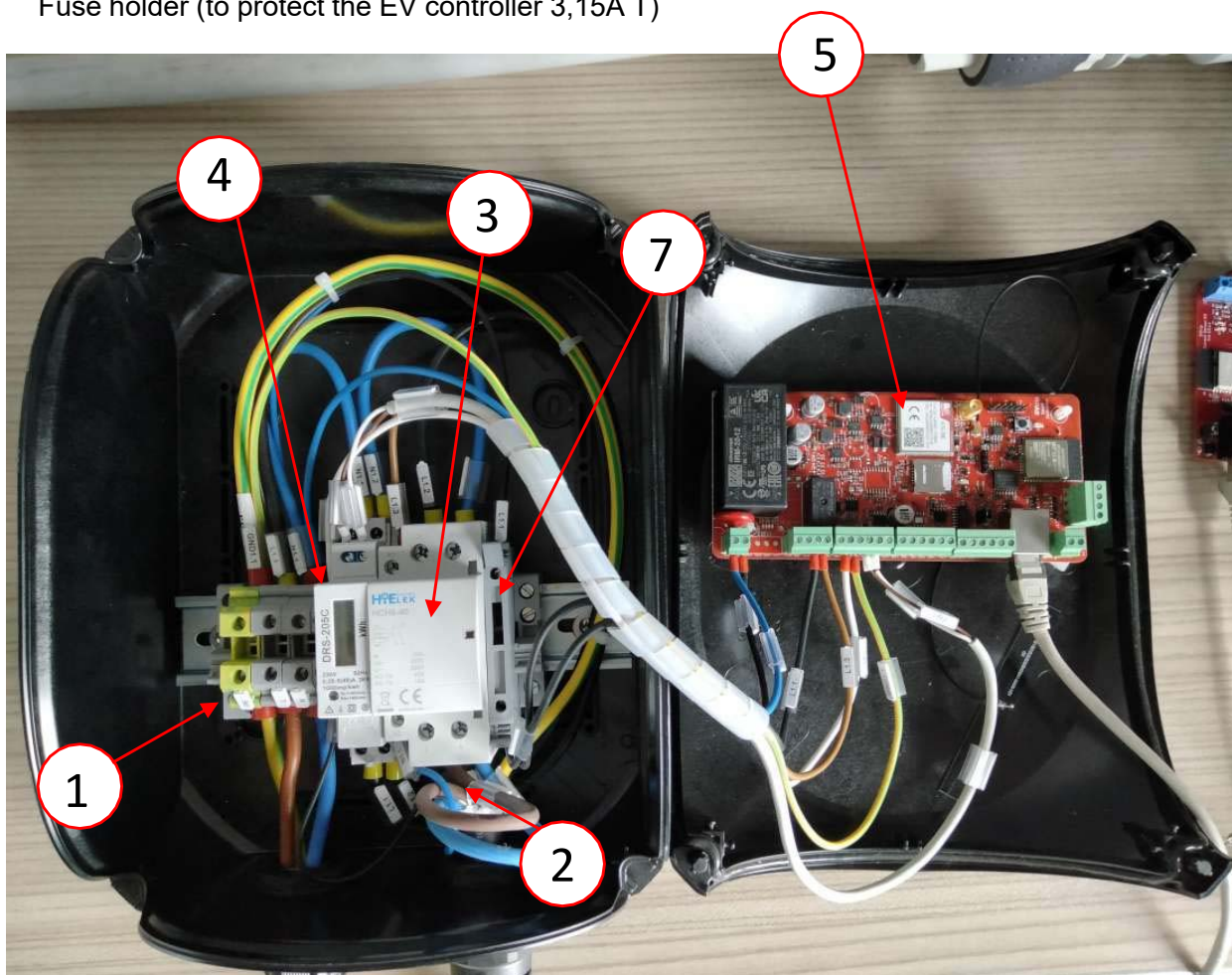
Preliminary operations (Warnings)

1. Before proceeding with the wallbox 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. It is compulsory to follow the schematics below during the installation process:



COMPONENTS DESCRIPTION

- 1 Main voltage cable
- 2 Vehicle connection cable inlet
- 3 Single phase Relay
- 4 MID certified meter
- 5 EV Controller
- 6 eVsense board
- 7 Fuse holder (to protect the EV controller 3,15A T)



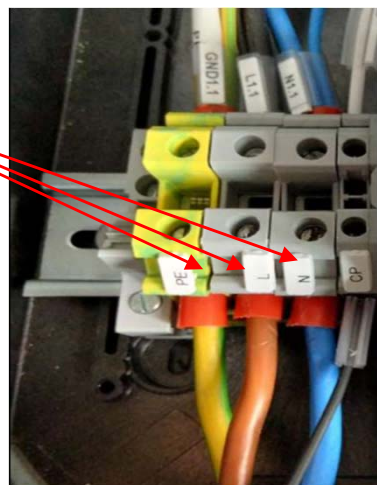
- 8 Current Transformer to control charging power



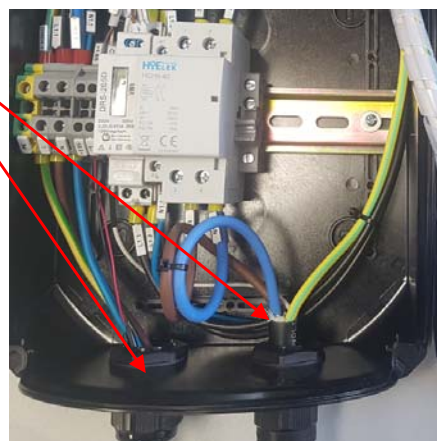
ELECTRICAL INSTALLATION

Installation procedure:

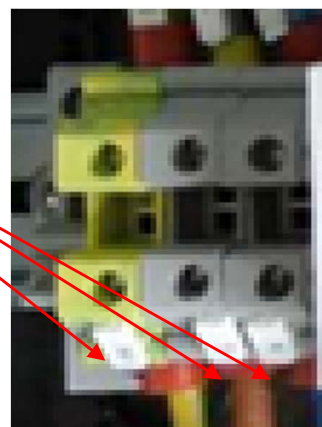
- 1) Verify that all the terminal labels are correctly positioned (as in the image below) and have not fallen off during transportation.



- 2) Insert the **AC** supply cables and the ethernet cable into the free wallbox cable glands.



- 3) Connect the power supply **PE** , **L** , **N** to the respective terminals.



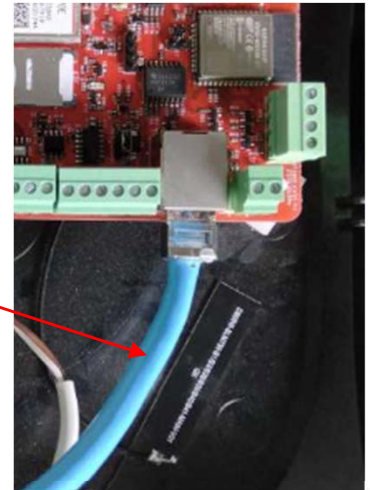
Note: the screw terminal for AC supply cabling is compatible with cables up to 10 mm². Using a cable with single sections of at least 6 mm² is recommended. In case the distance between the junction box and the respective magnetothermic and residual current breakers is significant, it may be necessary to increase the section of the employed cables according to a suitable calculation.

3) Open the provided transformer and put only one wire of the power supply line (L or N) through it, right after the usage meter (see schematics below).



Transformer opening direction

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



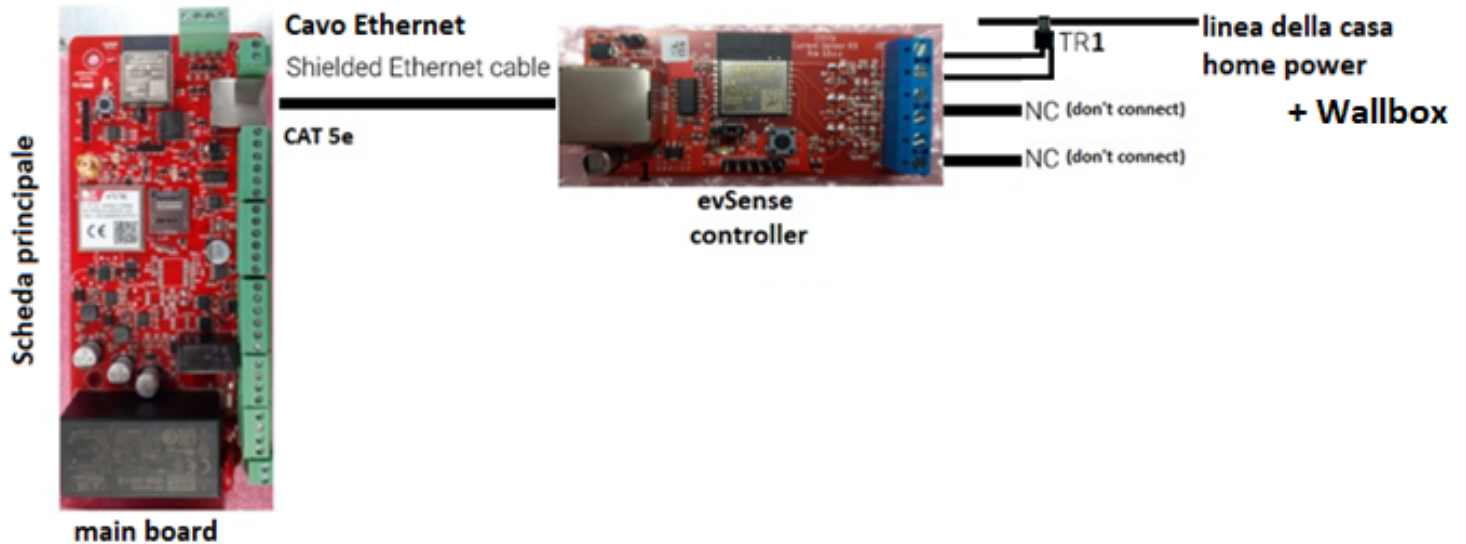
WARNING ! IMPORTANT !



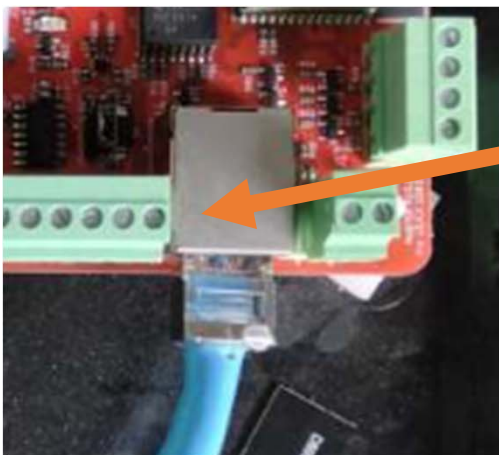
You will find inside the wallbox this label . It is extremely important not to lose it. It will be used to connect the wallbox to the to the app and to the portal.

CONNECTIONS

1. Connect the two cables of TA TR1 to the separate board eVsense.

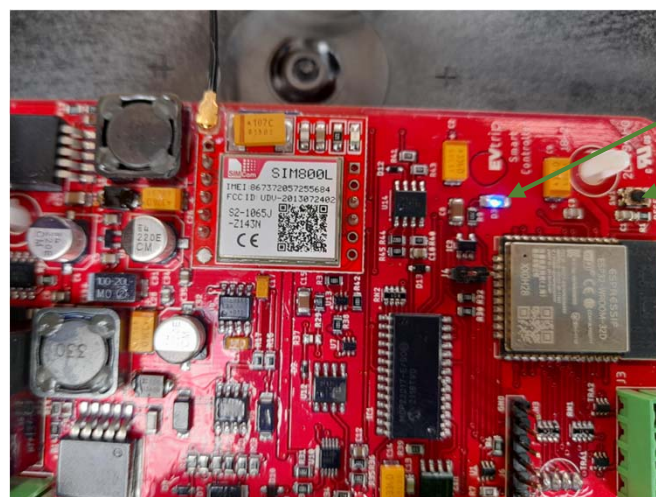


WARNING ! IMPORTANT !



This connector on the main board is not an ethernet connector and it must not be connected to a router or a witch but only to the eVsense board

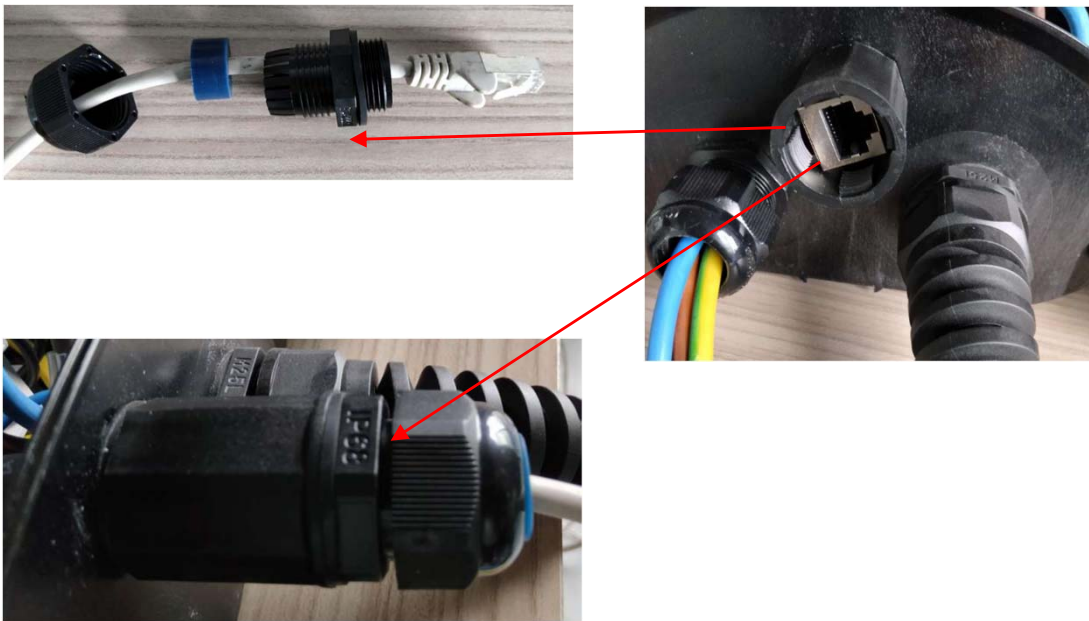
- 2 Connect the eVsense circuit to the charger it is mandatory to use a shielded cable ethernet **cat 5e ftp** even if for short distances (greater than 10 cm) Max suggested length for a correct functionality is 100m (for longer distances pls ask technical support)
3. The switchboard that powers the wallbox should include a C-curve magnetothermic circuit breaker (MCB) for protection against overloads and short circuits and a 30mA B-type residual current breaker (RCD). It is possible to use a type A RCD if the WB is equipped with the accessory for detecting DC leakage currents > 6mA
4. Make sure that the wallbox is installed in a place where there is coverage of a GSM network or alternatively a WI-FI connection (2.4Ghz only). This is an important condition for the correct operation of the product. If the network connection is not available in the installation site, it is necessary to carry out the first ignition under network coverage, then the WB can also be installed in an environment without coverage. In this way, however, remote control and updates will not be possible.
- 5, At the first activation, the installer has to send email to info@evchargers.it as described later to verify and proceed with the wallbox registration, otherwise it will not function.
- 6, Use the App to set the output power in order to not exceed the available KW.
- 7, At the end of the installation, it is highly recommended to test the operation of the current transformer (CT) by using the App to verify that consumption data is correct, or via remote technical support.
- 8, In case the wallbox is not working, disconnect the power supply, wait for 20 seconds, and power it up again.
- 9, If the blue LED on the wallbox board is not blinking, push RESET for 1 second to make it blink again. Otherwise, call +39 0302594120 and request support.



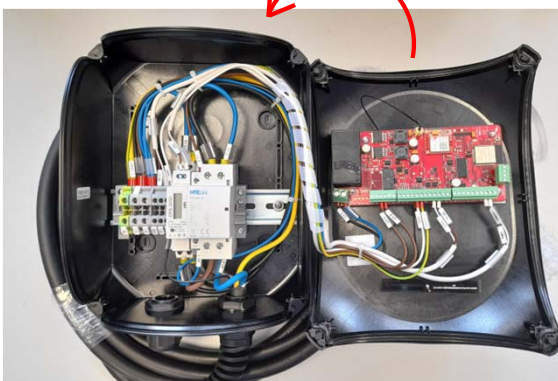
Blue LED

Reset button

10) Connect the ethernet cable using the special cable gland delivered



Close the wallbox lid and carefully fasten the plastic screws.



Note: for the electrical safety device installation to protect the wallbox, a 40A 30mA magnetothermal residual circuit breaker (C-curve for the MCB and B-type for the RCD) is recommended. The corresponding product code in the EVchargers catalog is 245.

LED INDICATORS

RED LED

Offline / Connection ongoing /
Generic error



GREEN LED

Connected, ready for charging



BLUE LED

Charging



CHARGING PROCEDURE

Verify that the LED light indicator is green, this indicates that the wallbox is available and ready to recharge (green / red if there is no connection)



Model with a cable

Connect the Prime Smart Wallbox cable to the vehicle to start charging, charging will start within 15 seconds and the LED will turn blue (blue / red if there is no connection). The termination of the recharge can be done with the APP or through the vehicle



Model with a socket

Connect the cable to the plug of the **Wallbox Prime Smart** and then connect the plug to the vehicle to start charging. The termination of the recharge can be done with the APP or through the vehicle

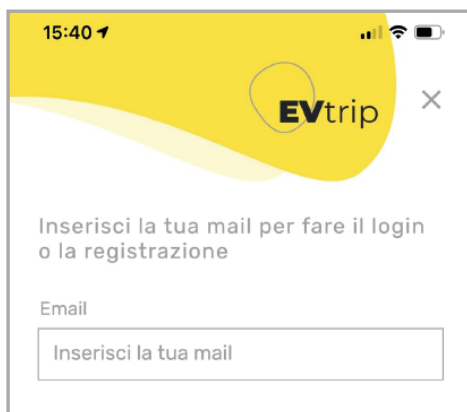


POWER ADJUSTMENT AND APP

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



2. Use your email address to register within the app.

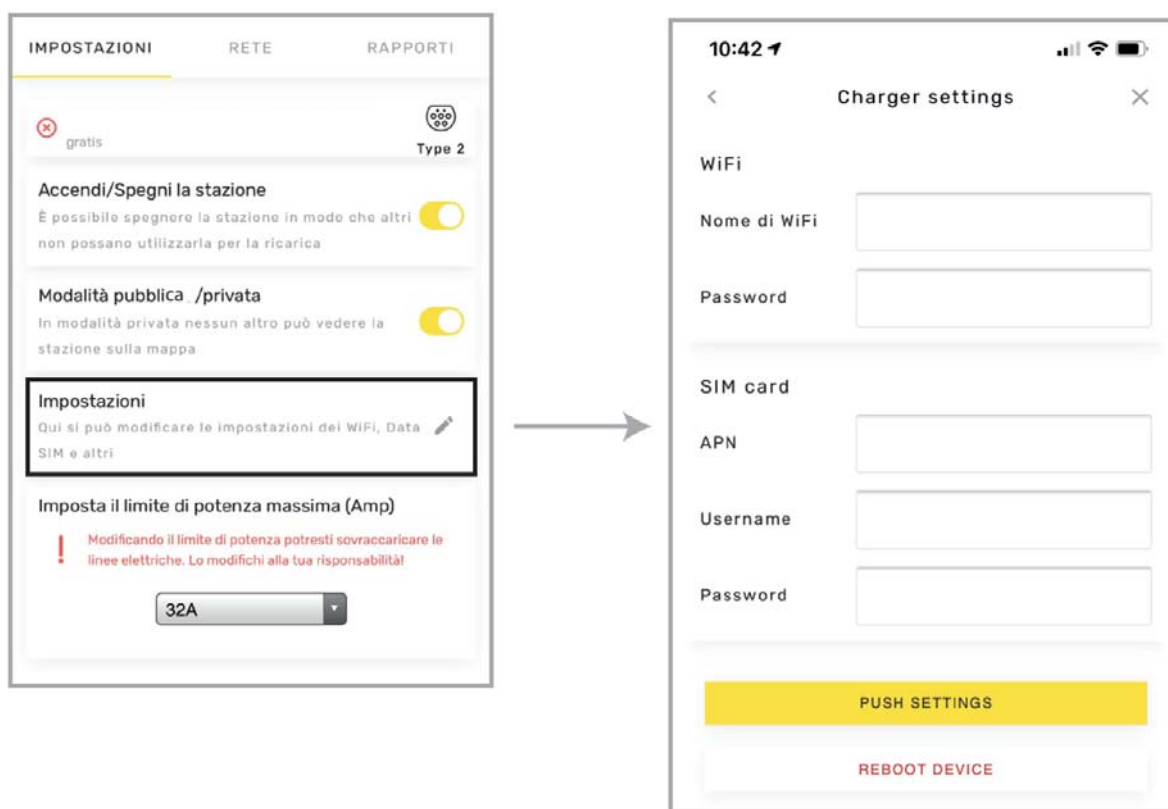


3. Send an email to info@evchargers.it indicating the following details:

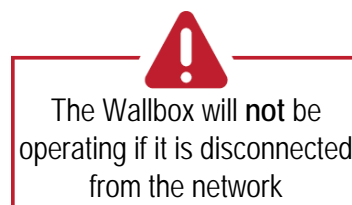
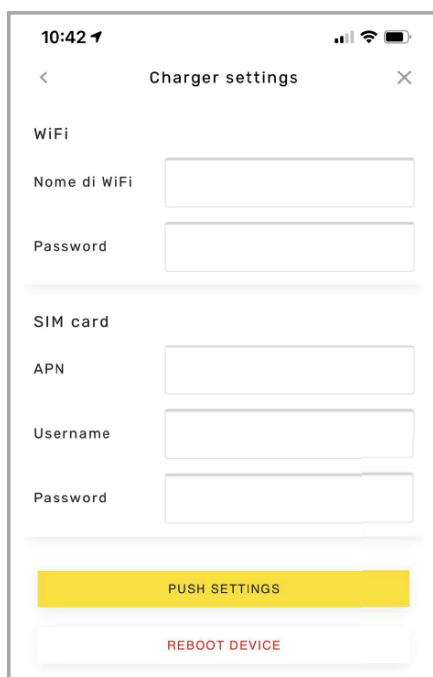
- Name
- GPS coordinates
- BLE Device Name (a unique code located inside the wallbox)

4. Connect the Wallbox 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 Wallbox



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



If there is no GSM or Wifi reception at the installation site, please contact our technical office at no. 0302594120

Notes:

6, It will now be possible to set the output power, **the default value 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

PERIODIC CONTROLS

The PRIME Wallbox 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.**

This document is protected by **Detas Evchargers S.p.a.** copyright

All rights are reserved. **Detas Evchargers S.p.a.** reserves the right to make modifications to the products described in this manual at any time and without notice.

This manual cannot be reproduced, copied, translated, or transmitted in any of its parts, in any shape or content, without the written authorization of the original manufacturer. The information provided in this manual is accurate and reliable. In any case, the original manufacturer does not assume any responsibility for its use, or for the violation of third-party rights which may result from its use.

All the other registered product or brand names are the property of the respective owners.

