EV Charging Station

WEMOB-STATION- MOBILE

User Manual

User Manual

WEMOB-STATION-MOBILE

Language: English

Document: 10010893146

Revision: 02

Modelo: MOBILE

Data: 10/2025

The information below describes the revisions made to this manual.

Version	Revision	Description
-	R00	First edition
-	R01	General Review
-	R02	General Review

Table of Contents

1 SAFETY INSTRUCTIONS

This manual contains the necessary information for the correct installation and operation of the WEMOB-STATION electric vehicle charging station.

It was prepared to be used by people with proper technical training or qualifications to operate this kind of equipment.

1.1 SAFETY WARNINGS IN THE MANUAL

The following safety warnings are used in this manual:

DANGER!
Not following the procedures recommended in this warning may lead to death, serious injuries and considerable material damages.

ATTENTION!
Failure to observe the procedures recommended in this warning may lead to material damages.

NOTE!
The information provided in this note is important for the correct understanding and proper operation of the equipment.

1.2 PRELIMINARY RECOMMENDATIONS

DANGER!

- Only people with proper qualification and familiarized with charging stations are allowed to perform the installation, start-up and maintenance of this equipment;
- Such personnel must follow the all the safety instructions contained in this installation and operation manual and/or defined by local regulations;
- Failure to comply with the safety instructions may result in death, serious injury and/or equipment damage;
- A damaged charging station must be removed from service and repaired. For more information, refer to Section 1.4 TECHNICAL SUPPORT on page 8.
- Always disconnect the general power supply before touching any electrical part in connection with the electric vehicle charging station;
- Do not allow children or people with reduced physical, mental or sensory capabilities to operate the charging station.

NOTE!

- For the purposes of this manual, qualified personnel are those trained and able to:

1. Install, ground, power up and operate EV charging station in accordance with this manual and the legal safety procedures in force;
2. Wear/use protective equipment according to the standards in force;
3. Provide first aid;

- If the charging station will not be used for a long period, it is recommended to keep it switched on to prevent condensation inside.

ATTENTION!
- The electronic boards have electrostatic discharge sensitive components. Do not touch the components or connectors directly;
- Be careful not to damage the charging station circuit boards or components.

NOTE!
- Read this manual thoroughly before installing or operating this equipment.
- WEMOB® is a trademark of WEG S/A.

1.3 CARE WITH THE CHARGING CABLE

Follow the instructions below to avoid damage to the charging cable:

- Unwind the entire charging cable before starting to use it;
- Do not drop the end of the cable (plug);
- Never connect the charging cable to an extension cord or adapter;
- Never disconnect the charging cable, either from the station or from the electric vehicle, just by pulling it. It must be disconnected by pulling it by the plug;
- Make sure the charging cable is in an area free of obstacles, it is not bent, pinched or jammed;
- Make sure the charging cable will not touch heat sources, pointed or sharp objects;
- A deteriorated charging cable can cause a short circuit, fire, or electric shock;
- Do not use this product if the charging cable is worn, the insulation is damaged or dirty or shows any other signs of damage;
- Make sure the charging cable will not cross pedestrian and/or vehicle traffic routes, where it may be stepped on or subjected to mechanical stresses, which may cause pedestrian to trips, and damage to cables and to the charging station;
- Do not pull the charging cable with excessive force;
- Never touch the charging cable/plug with wet hands;
- Protect the charging cable from the weather. Do not immerse the cable in water or other liquids;
- Protect the electric vehicle connecting plug against the ingress of liquids or foreign bodies. Do not make any changes or adaptations to the plug;
- After use, insert the charging plug into its socket located on top of the station.

NOTE!
Throughout the manual, the term "charging cable" is used to designate the set consisting of electrical cables and the plug to connect to the electric vehicle.

1.3 TECHINICAL SUPPORT

If you need to contact WEG, please use the channels listed below:

Talk to **WEG**

WEG Website

DANGER!
A damaged charging station must be removed from service and repaired.

2 GENERAL INFORMATION

2.1 ABOUT THE MANUAL

This manual contains directions for installing and commissioning the WEMOB-STATION EV charging station and describes its main features.

2.2 TERMS AND DEFINITIONS USED IN THE MANUAL:

A: Ampere, electric current level unit of measurement.

APN: Access Point Name.

ºC: Temperature unit in degrees Celsius.

AC: Alternating Current.

DC: Direct Current.

CCS: Combined Charging System.

CHAdeMO: Abbreviation for Charge de Move, trade name for a fast charging method for electric vehicles.

PPE: Personal Protective Equipment.

FCK: Feature Compression Know.

FOTA: Firmware Over The Air.

GB/T: National recommended standard, from Chinese "国标推荐".

IMD: Insulation Monitoring Device.

kg: Kilogram, mass unit of measurement.

kVA: KiloVolt-Ampere = 1000 (10_3) VA.

LGPL: Lesser General Public License.

m: Meter, length unit of measurement.

mm: Millimeter = 0.001 m.

cm: Centimeter = 0.01 m.

in: Inch, length unit of measurement**.**

MPa: Pressure unit of measurement in mega Pascal.

Nm: Newton meter, torque unit of measurement.

OCPP: Open Charge Point Protocol – standard and open protocol for communication between charging stations and a central system.

PE: Protective earth.

RCCB: Residual Current Circuit Breaker.

RFID: Radio Frequency Identification.

V: Volt, voltage unit of measurement.

VA: Volt Ampere, apparent power unit of measurement.

EV: Electric Vehicle.

2.3 ABOUT THE CHARGING STATION

The WEMOB-STATION electric vehicle charging station is a high-performance product that provides fast charging of electric vehicles at alternating current (AC) or direct current (DC), individually or simultaneously, controlling, monitoring and protecting the equipment and users.

It has two direct current (DC) combo connectors standard CCS (Combined Charging System) Type 2 or GB/T, according to the purchased model.

With a modern design, the WEMOB-STATION charging station can be installed in sheltered places; it is the complete solution for the fast charging of electric vehicles at service stations and highways.

It features a 10.1" color display that provides a user-friendly interface with instructions and detailed information to start and stop a charge, including information about the charge in progress, charging time, battery charge level etc., allowing you to operate the charging station in an easy and intuitive way.

The WEMOB-STATION charging station has connectivity via wireless data network (Wi-Fi), wired Ethernet (RJ45) and smartphone (LTE), RFID (Radio Frequency Identification), LED indicators and audible signal to indicate the station status and/or monitor the charging process.

2.4 OVERVIEW

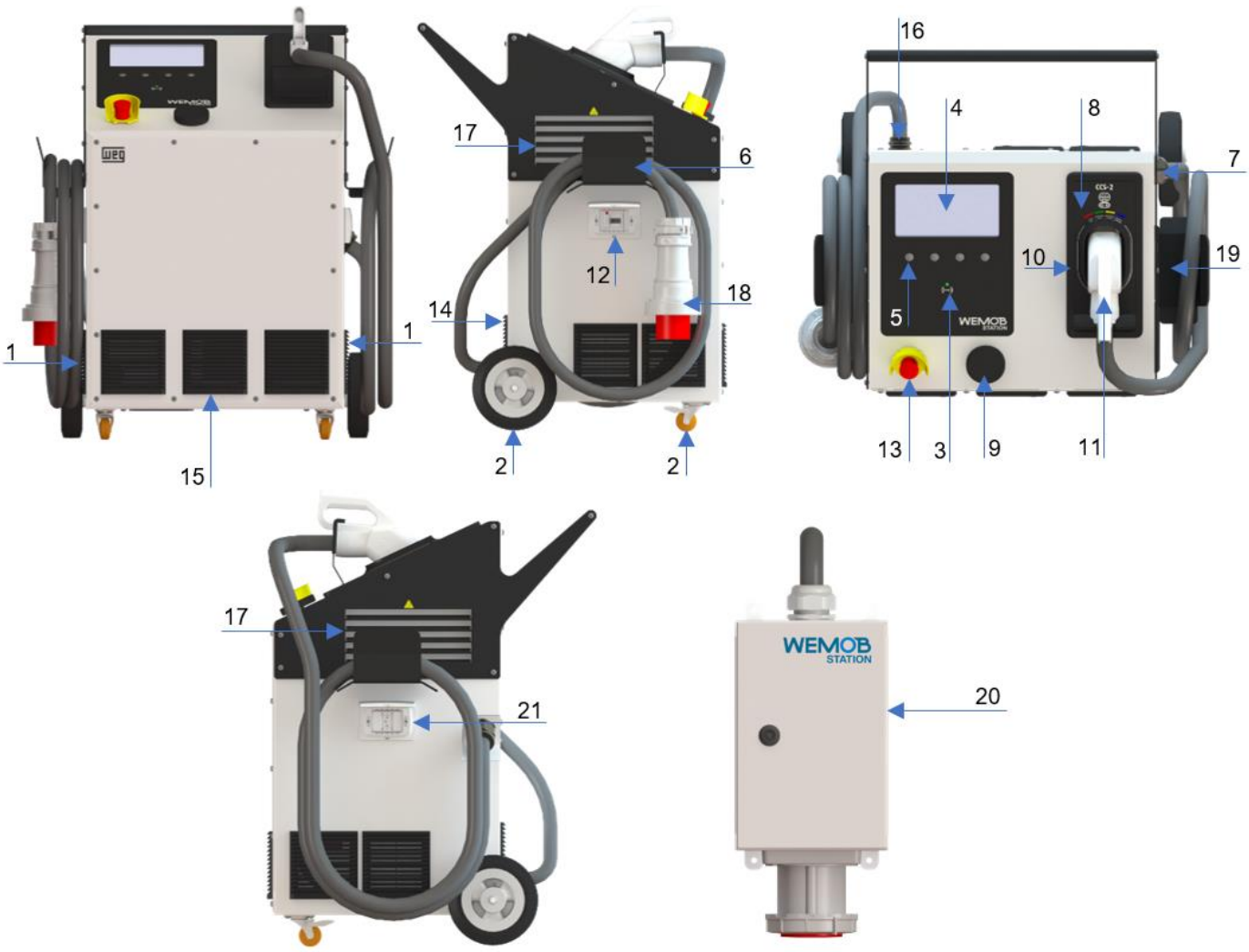


Table 1: WEMOB-STATION-MOBILE Charging Station Overview

1 - Side air inlet	8 - Charging status LEDs	15 - Front air inlet
2 - Casters	9 - Wi-Fi/Cellular antenna	16 - Charging station power cable
3 - RFID Reader/LED	10 - Socket to keep the charging plug	17 - Side air outlet
4 - 10.1" display	11 - Charging plug	18 - Power plug
5 - Selection buttons	12 - General circuit breaker operating mechanism	19 - Bracket to keep the charging cable
6 - Bracket to keep the power cable	13 - Emergency pushbutton	20 - Power box
7 - Charging cable exit	14 - Rear air inlet	21 - Auxiliary Outlet

2.5 IDENTIFICATION LABEL

The identification label of the WEMOB-STATION is positioned outside the back wall. This label contains important information about the station.

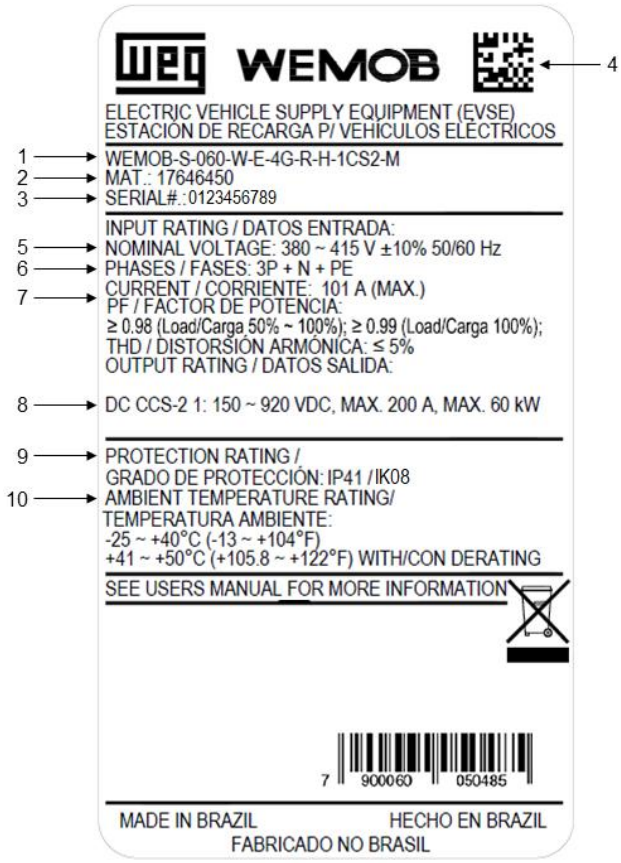


Figure 1: WEMOB-STATION-MOBILE identification label

Table 2: WEMOB-STATION-MOBILE identification label

1 - Product model	6 - Number of phases
2 - Stock item	7 - Maximum input current
3 - Serial number	8 - Voltage, current and maximum power of the connector
4 - Manufacturing date	9 - Protection rating
5 - Rated supply voltage and frequency	10 - Ambient temperature range

2.6 CONSTRUCTION

The WEMOB-STATION charging stations are made with steel sheets painted and processed (cut, drilled, bent, chemically treated, painted and finished) by WEG or accredited manufacturers, ensuring quality in every step of the manufacturing process. The unpainted parts of the station are galvanized or otherwise treated to ensure corrosion resistance.

It can be installed indoors or outdoors, having IP41 and IK08 protection rating.

The charging station is cooled by forced convection. The air enters through the grilles on the sides and rear of the station, circulates inside the station and passes through the heatsinks located in each of the power modules (AC/DC converters). The hot air exits through the upper side of the station, where the exhaust fans are.

The shutter filters can be cleaned or replaced from the outside.

ATTENTION!
The air outlets can reach temperatures close to 80°C.

2.7 CONNECTORS

The WEMOB-STATION charging station is equipped with a standard charging cable of 4.6 m or 9.6 m with a Combo CCS-2 or GB/T plug, depending on the purchased model. It is suitable for the station's maximum output current, being 80 A for the 30 kW charging station and 200 A for the 60 kW charging station, capable of serving a variety of electric vehicles (EVs):

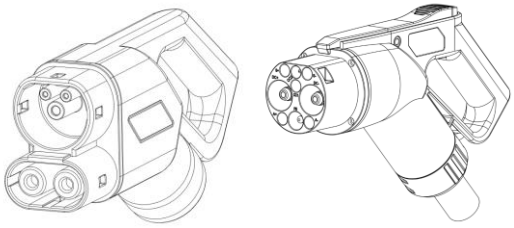


Figure 2: Connector models of the WEMOB-STATION-MOBILE: CCS-2, and GB/T, respectively

To release the connector from the socket located on top of the station, perform the sequence of movements shown below.

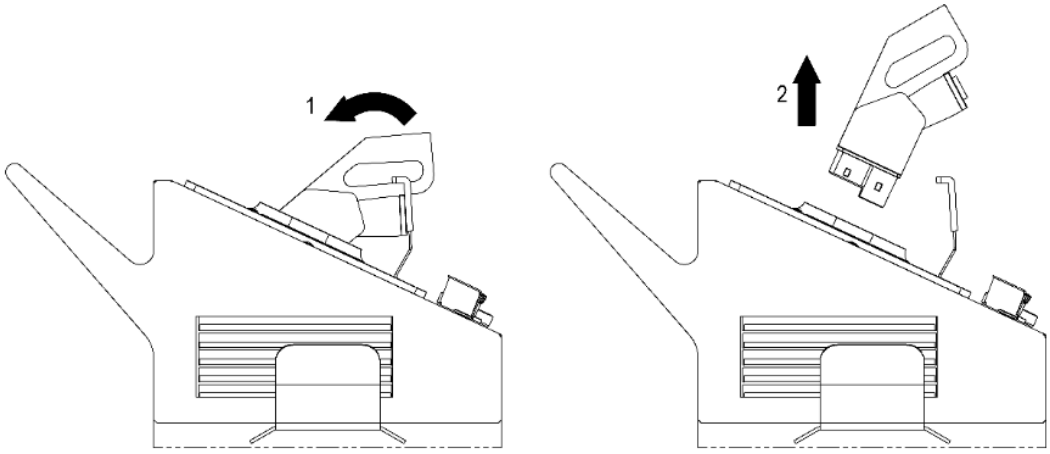


Figure 3: Procedure for removing the connector (plug) from the socket

NOTE!
When the electric vehicle is completely charged, insert the connector into the socket located on top of the station. Do not leave the charging cable on the floor.

2.8 LED INDICATOR AND AUDIBLE ALARMS

Over the socket for keeping the charging plug is a set of LED indicators that provide visual information about the operating status of the charging station. It consists of four (04) LEDs, which can light up or flash together or individually, in various colors. In addition, beeps can be emitted to inform the status.

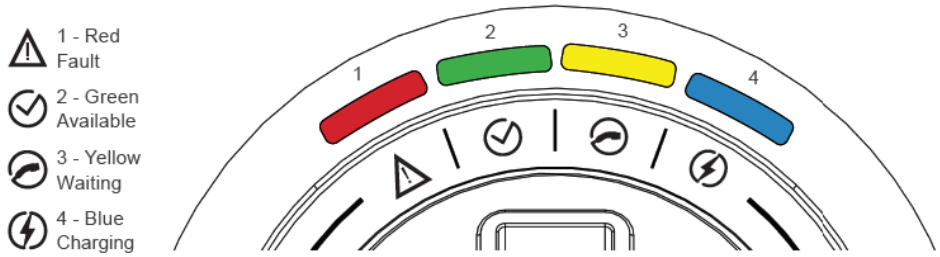


Figure 4: LED indicators

Table 3: Status indication

LED Color	Status	Description
All LEDs flashing	STARTING	Charging station in self-test
All LEDs off	OFF	Charging station without power supply
Solid green	AVAILABLE	Station ready for use
Flashing green	AUTHORIZED	User authorized for charging (only if the station requires authentication)
Solid yellow	WAITING	Electric vehicle connected and in recognition process
Flashing yellow		Charging ended (complete or not)
Solid blue	CHARGING	Charging in progress
Flashing red	FAULT	Station in fault or error state

NOTE!
In case of error, in addition to the indication LED, the charging station will emit a long beep.

DANGER!
Do not force the vehicle to disconnect by pulling on the charging cable. Previously stop recharging through your vehicle and only after releasing, remove the plug. Some electric vehicles allow you to start the engine with the charging cable attached. Be sure to disconnect the cable before moving the vehicle.

2.9 RECEIVING AND STORAGE

The WEMOB-STATION charging station is supplied in crated packaging.

Upon receipt, check that:

- The identification label matches the purchased model;
- Damages occurred during transportation. If any problem is found, contact the carrier immediately;
- If the WEMOB-STATION is not installed soon, keep it in the package closed and store it in a clean and dry location with temperature between -25 ºC and +45 ºC.

After receipt:

- Do not store it in direct sunlight, rain, extreme cold, excessive humidity or sea air;
- Store it in a clean and protected place with the air relative humidity not above 80%;
- During the storage period, the conditions mentioned above must be met; however, when the components are stored for more than one year, measures must be taken to dehumidify the storage place;
- When using equipment after a long period of storage, check that the equipment is free from scratches, dirt, rust and so on.

NOTE!
The performance and reliability of the WEMOB-STATION charging station may be impaired if it is stored in an environment outside the aforementioned conditions.

3 INSTALLING AND CONNECTING

This chapter describes the mechanical and electrical installation procedures for the WEMOB-STATION charging station. The directions and suggestions must be observed in order to ensure the safety of people and equipment and its proper operation.

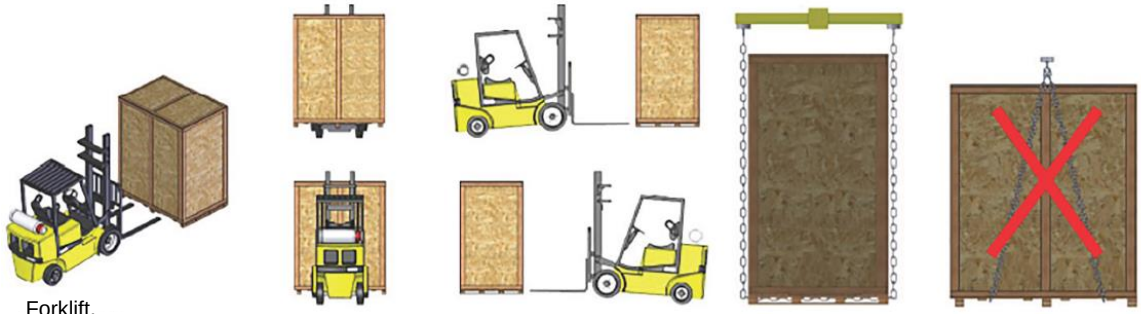
3.1 RECOMMENDED HANDLING PROCEDURE

It is recommended to completely remove the packaging only after positioning the WEMOB-STATION charging station in the final place of operation. Before lifting or moving the charging station, read the instructions below to learn about the available points for mechanical connection of lifting equipment, transportation and weak points.

3.1.1 Handling

If using a crane or hoist, make sure that the movements are slow and smooth so that the WEMOB-STATION will not suffer excessive swing or vibrations.

When using hydraulic carts, forklifts, rollers or other handling equipment, distribute the mechanical support points of such equipment from one end of the WEMOB-STATION to the other, avoiding applying pressure on fragile areas. If the packaging has already been removed, make sure that all WEMOB-STATION doors are closed.



- Forklift.
- Hoist with lifting beam.

Merely illustrative image

Figure 5: Procedure for handling with forklift or hoist

ATTENTION!
The use of chain under the box for lifting and handling is prohibited.

3.1.2 Opening the Package

Use suitable tools to unpack the WEMOB-STATION, always taking care not to damage the equipment.

While opening the package, check if there are damages to the product. Do not install the WEMOB-STATION in case you suspect any damage.

Remove any particles from the package (plastic, wood, styrofoam, metal, nails, screws, nuts etc.) that may have remained in the charging station.

ATTENTION!
- Use personal protective equipment (PPE).

If any component has problems (damage), it is recommended:
- Stop opening the package immediately;
- Contact the carrier and formally record the problem encountered;
- Photograph the damaged parts and/or components.

3.2 MECHANICAL INSTALLATION

The WEMOB-STATION is designed for indoor use. Therefore, it is necessary to ensure some specifications to protect the device in its installation site.

NOTE!
Be careful not to damage the circuit boards or components during installation.

3.2.1 Environmental Conditions

The following criteria must be observed when selecting the appropriate installation place:

- To ensure safe charging, use the brake on the casters so the charging station will not move during charging;
- The mounting surface must be stable and resistant enough to withstand the charging station mass;
- Do not use the charging station on inclined surfaces, under objects or suspended furniture that could fall and damage it;
- Do not use the charging station near pedestrian and/or vehicle traffic routes, where power cables would cross these routes;
- Provide a minimum space of 0.3 meters around the entire station to allow the circulation of users;
- When installing the WEMOB-STATION in a place with direct sunlight, the output power may reduce due to the heating caused by the sunlight.

To ensure proper operating conditions and a longer service life of the station, the following requirements must be observed:

- Avoid direct exposure to sunlight, rain, snow, extreme cold, excessive humidity or sea air, electrical storms or other adverse weather conditions;
- Do not operate the station close to appliances that emit heat;
- Do not install the station close to walls or other equipment without respecting the minimum clearance distances;
- Do not spill water or other liquids over the equipment;
- Avoid exposure to flammable, explosive or corrosive gases or vapors;
- Do not expose it to excessive vibration;
- Do not expose it to dust, metallic particles or oil mist;
- Do not expose it to water jets, such as high pressure washer, garden hose etc.

To ensure proper operating conditions and a longer service life of the power box, the following requirements must be observed:

- Never expose the power box to direct sunlight, rain, snow, extreme cold, excessive humidity or sea air, electrical storms or other adverse weather conditions;
- Do not install the power box near devices that emit heat;

- Do not install the power box close to walls or other equipment without respecting the minimum clearance distances;
- Do not spill water or other liquids over the equipment;
- Avoid exposure to flammable, explosive or corrosive gases or vapors;
- Do not expose it to excessive vibration;
- Do not expose it to dust, metallic particles or oil mist;
- Never expose it to strong water jets, such as pressure washers, garden hoses etc.

Environmental conditions for operation:

- Temperature: -25 °C to 40 °C - rated conditions. From 41 ºC to 50 ºC - with derating;
- Air relative humidity: 5% to 95% non-condensing;
- Install the station in an environment with air circulation;
- Maximum altitude: 2000 m above sea level - rated conditions. For applications at higher altitudes, contact WEG;
- Condensation must not cause conductivity in the pollution.

3.2.2 Cleaning and Maintenance

DANGER!
Before starting cleaning and/or servicing the charging station and power box, make sure that the circuit breaker upstream is turned off, as well as disconnect the power plug from the outlet.

To ensure proper operating conditions and a longer service life of the station, the following requirements must be observed:

- Periodically clean the exterior of the station and power box, cables and charging plugs. It is recommended at least once a month;
- Clean it with the station turned off;
- Never perform the cleaning while the electric vehicle is being charged;
- To perform the cleaning, use a soft, dry cloth only;
- Do not use abrasive cloths, sponges and detergents;
- Do not spill water or other liquids over the equipment;
- Do not use solvents or chemicals;
- If the charging station is very dirty, use a cloth slightly dampened with water to remove dust and accumulated dirt;
- Always keep the air inlets clean and free of any material that may prevent air circulation;
- Clean the air filters every 6 months;
- Replace the air inlet and outlet filters every 12 months;

- Optionally, apply automotive wax only to metal parts for extra protection.

The following points need to be checked regularly:

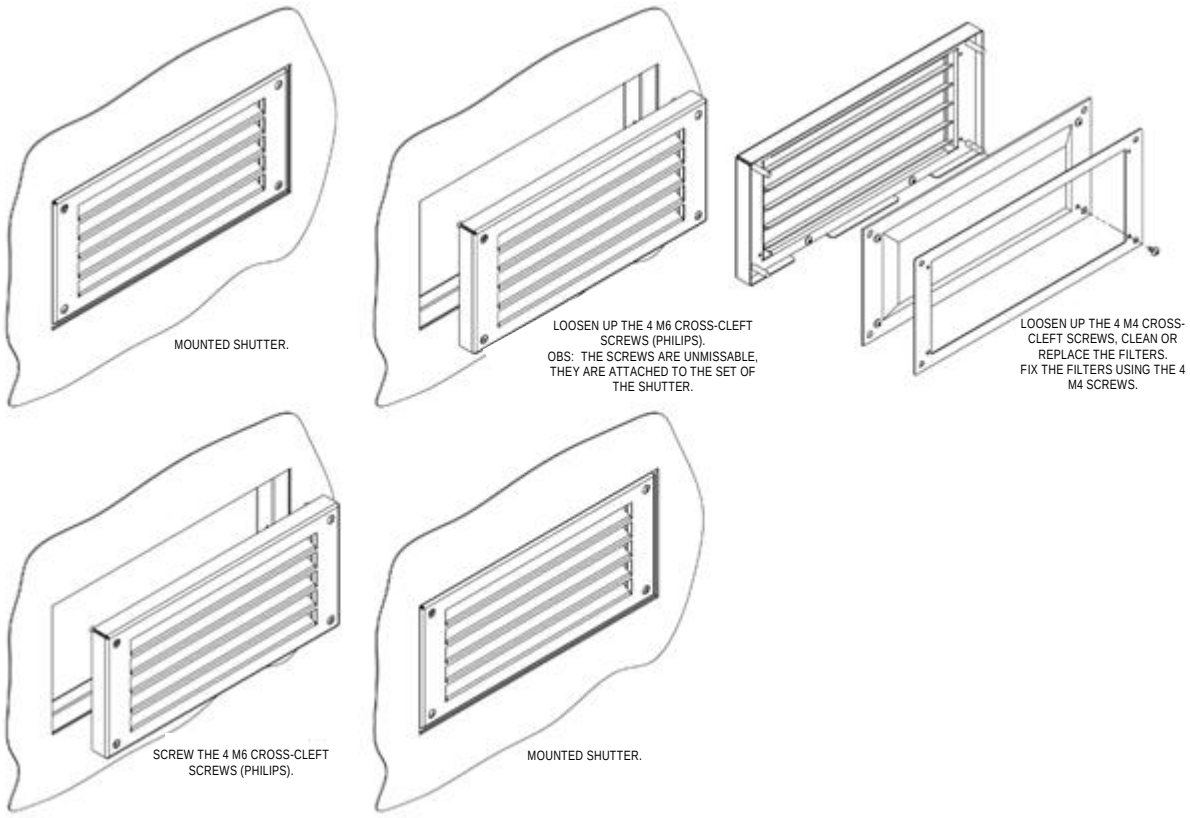
- Condition of the protection and switching devices, especially regarding the wear caused by arc and loosening of the contacts;
- Charging cables and connectors: check the connector and cable for cracks, check if the cable jacket is in perfect condition and that no internal wires of the cable are visible;
- Condition of the conductors and theirs connections, especially the protective ones;
- Display: check for signs of damage or cracks, fissures in the protective acrylic or stains on the display;
- Metal cabinet: check the cabinet for dents that compromise the protection rating, oxidation points (rust), paint flaws etc;
- Emergency stop button: check for signs of cracks, fissures, and if the locking/release mechanism is working;
- Fan status;
- Resistance of the ground electrodes that feed the charging station.

If any of the following cases occur, the station must be immediately de-energized and taken out of service:

- If the station was hit by electrical discharge (lightning);
- If the station was damaged by accident or other direct impact;
- If the station was damaged by fire;
- If the place where the station is located was flooded;
- If there is a failure in the seal that compromises the protection rating.

DANGER!
A damaged charging station must be removed from service and repaired. For more information, refer to Section 1.4 TECHNICAL SUPPORT on page 8.

NOTE!
- In heavily polluted environments, it may be necessary to perform the cleaning and change the air filters more often.
- If the performance of the charging station drops, the air filters must be replaced.



DANGER!

- Do not leave sensitive components and flammable materials near the air outlets, as they may reach temperatures of up to 80 °C.
- A damaged charging station must be removed from service and repaired. For more information, refer to Section 1.4 TECHNICAL SUPPORT on page 8.

Figure 6: Replacement of air filters

3.2.3 Corrective Maintenance

Every fault or abnormality observed in the electrical equipment in operation must be communicated to qualified personnel for the proper repair.

That must be done especially when the protection devices actuate without any known reason.

When the protection circuit breaker trips, identify and solve the cause before turning the equipment back on.

DANGER!
A damaged charging station must be removed from service and repaired. For more information, refer to Section 1.4 TECHNICAL SUPPORT on page 8.

3.2.4 Positioning

Provide a minimum clearance of 0.3 meters (0.3 m) around the entire station to allow good air circulation and better heat dissipation, in addition to the circulation of users.

In order to prevent overheating, the ventilation openings must not be blocked.

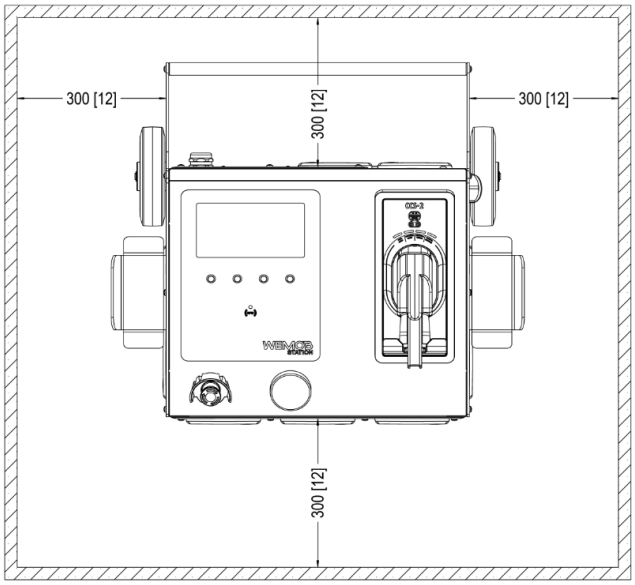


Figure 7: Minimum recommended clearance in mm and inches - mm [“]

A minimum clearance of 75 millimeters (75 mm) must be provided on the sides of the power box and 1250 millimeters (1250 mm) from the ground.

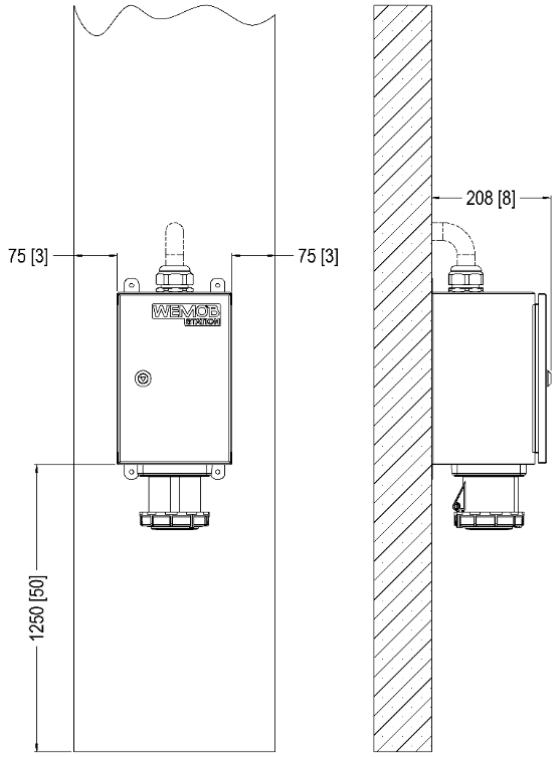


Figure 8: Minimum recommended clearance in mm and inches - mm [“]

ATTENTION!
The position of the WEMOB-STATION must allow the necessary ventilation flow for its operation.

3.2.5 Handling

Provide a minimum clearance of 0.3 meters around the entire station to allow good air circulation and better heat dissipation, in addition to the circulation of users.

If it is necessary to transport the charging station in places with highly uneven floors, to facilitate movement, it is possible to tilt the charging station slightly backwards and move it using only the two rear wheels.

When tilting the charging station, use the pedal as a foot support to tilt it:

Figure 9: Rear view

1- Pedal

2- Ventilation grilles

ATTENTION!
- Do not put your feet on the grilles to tilt the charging station;
- Do not tilt the charging station too much to avoid the risk of tipping it over.

3.3 ELECTRICAL INSTALLATION

The following information is a guide to the proper installation. Also comply with the applicable local regulations for electrical installations.

ATTENTION!
- When flexible cables are used for the power and ground connections, it is necessary to use suitable terminals at the cable ends;
- All electrical connections must be well tightened so that there is no risk of sparking, excessive heating or voltage drop in the circuits;
- It is recommended to use copper conductors;
- Ensure that during installation and use, the charging station is constantly and properly connected to a protective earth (PE);
- Do not share the grounding wiring with other equipment that operate with high currents (e.g., welding machines, high power motors, etc.).

DANGER!
- The WEMOB-STATION demands high current and consequently high power for its operation. Make sure that the demand requirements will be met by the electrical infrastructure of the facilities;
- Guards and installations must comply with national, state and local electrical installation rules and regulations;
- Make sure the supply line is disconnected before starting the connections;
- The supply line voltage must be compatible with the WEMOB-STATION voltage range;
- The charging station must be connected to a protective earth (PE).

3.3.1 Grounding Requirements

The charging station must be connected to a protective earth (PE).

Do not use the neutral for grounding, but a specific conductor. The grounding resistance must be lower than 100 Ω or lower than the maximum value defined in the applicable electrical installation standards, and the voltage between neutral and earth, lower than 10 V.

ATTENTION!

- Ensure that during installation and use, the charging station is constantly and properly connected to a protective earth (PE).
- Do not share the grounding wiring with other equipment that operate with high currents (e.g., welding machines, high power motors, etc.).

3.3.2 Connecting the Power Supply

A box for the AC power supply is provided separately next to the charging station.

Figure 10: Box for the AC power supply

Box for the AC power supply – 30 kW: the installation must be performed with a 5-wire 16 mm² multicore cable with EPR or silicone insulation, with three cores for the phases, one core for the neutral, and one core for the ground. The multicore cable must have an external diameter of 18 to 24 mm to guarantee the sealing of the power box through the cable gland.

Box for the AC power supply – 60 kW: the installation must be performed with a 5-wire 25 mm² multicore cable with silicone insulation, with three cores for the phases, one core for the neutral, and one core for the ground. The multicore cable must have an external diameter of 22 to 32 mm to guarantee the sealing of the power box through the cable gland.

The AC power supply must be connected according to the table and electrical diagram below:

Table 4: Power Box Connection

AC power supply	Power box
Phase R	K3:2
Phase S	K3:4
Phase T	K3:6
Neutral	X1:N (bottom side)
Ground	Ground Pin

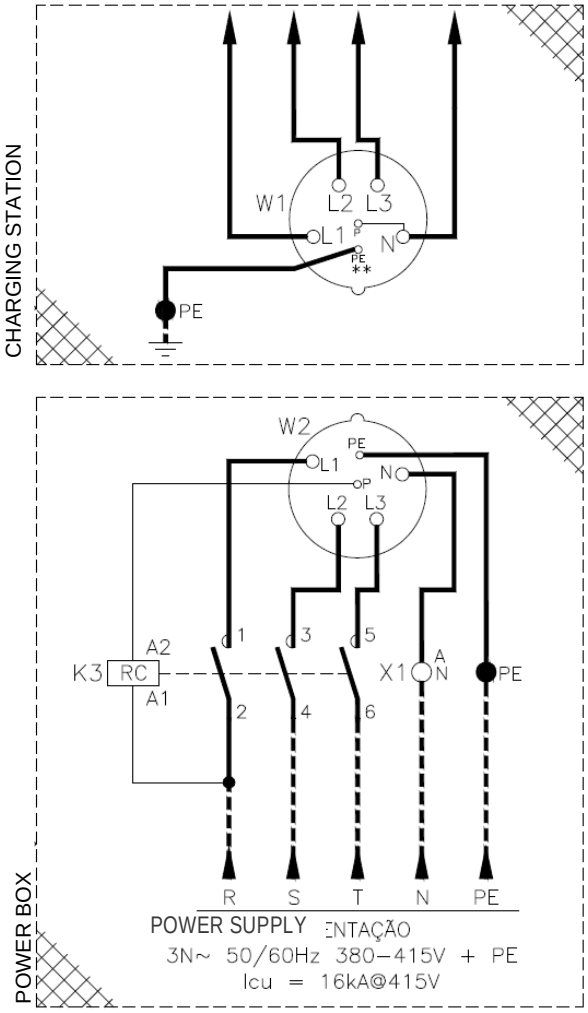


Figure 11: Power box diagram

The charging station is supplied with a plug and 10-meter cable; therefore, the power box must be installed so that the location of use of the station is within this distance.

For the power supply circuit to work, it is necessary to check if there is a connection between W1:N and W1:P. If not, use a 2.5 mm² cable, since only with this connection and with the plug properly inserted in the outlet the contactor will close and supply power to the charging station.

3.3.3 Protection Device

ATTENTION!
The WEMOB-STATION must be connected to an exclusive four-pole protection circuit breaker for the charging station power circuit with residual current protection 30 mA sensitivity (AC) type A.)

Determine the rated operating current of the circuit breaker upstream from the WEMOB-STATION charging station according to the data provided by the manufacturer, the maximum input current of the station, the short circuit levels of the installation and the station, the gauge and length of the power cables.

Also take into account the derating of the circuit-breaker rated current as a function of the ambient temperature in which the circuit-breaker is installed (in the distribution panel or circuit-breaker board), in addition to the selectivity of the protections.

3.3.4 Preparing for Energization

Before energizing the WEMOB-STATION, check that:

- All the power, grounding and control connections are correct and secure;
- The resistance between the ground (PE) of the station and the ground (PE) of the low voltage switchgear complies with local regulations;
- All tools, materials used in the installation or foreign objects that are not part of the product have been removed from inside the WEMOB-STATION;
- With the aid of a voltmeter (AC), check the line and phase voltage values. Voltages between terminals R, S and T of Q1 circuit breaker must be within the station permissible operating range (as indicated on the product label). Also check that the voltages between phases (RST) and neutral (N) are within the station permissible operating range, phase voltage 220 - 240 V AC ± 10 %).

4 ONE-LINE DIAGRAM

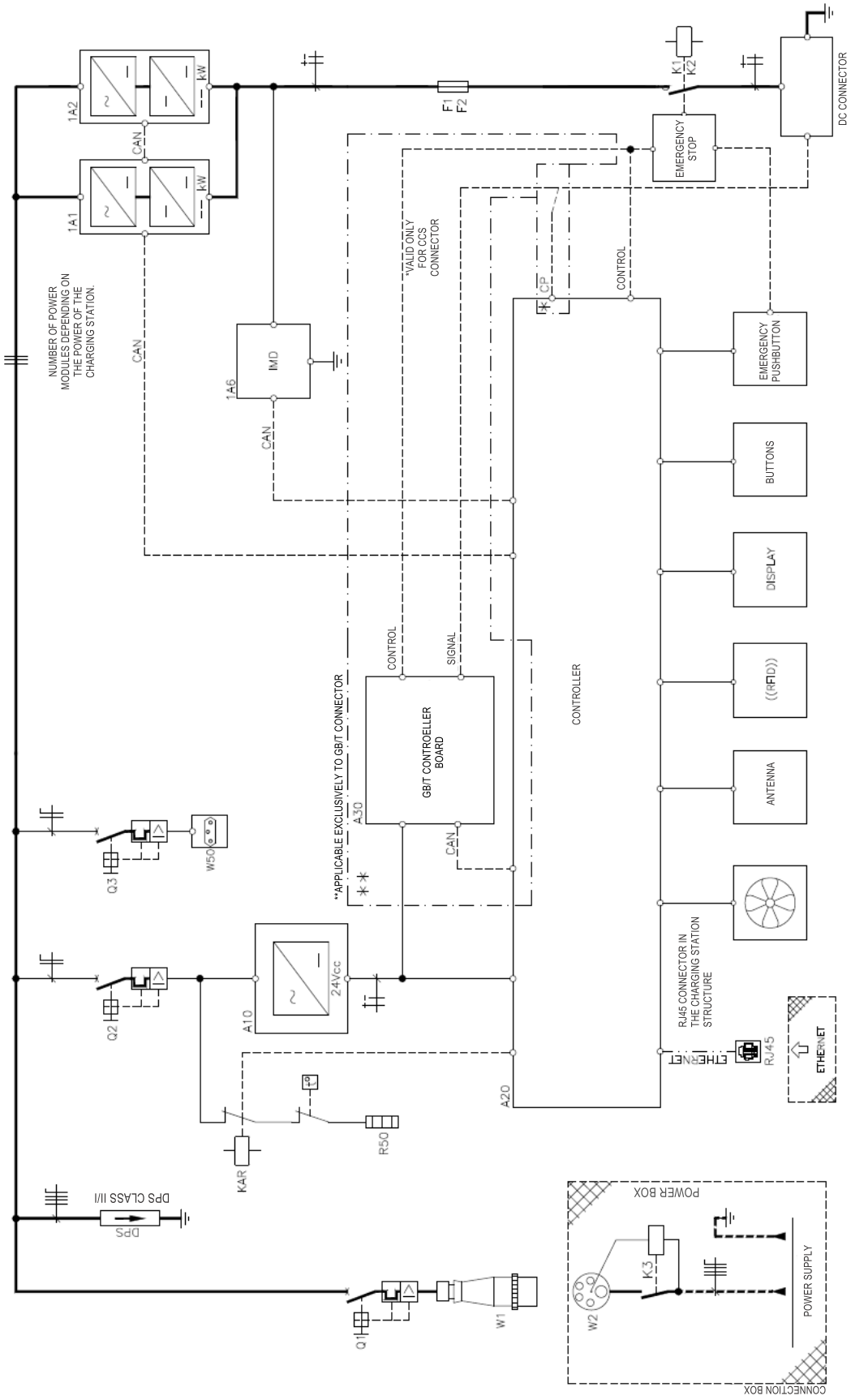


Figure 12: One-line diagram

Table 5: Characteristics of the one-line diagram components

Description (Component Tag)		Model (Station Power)	
		30 kW	60 kW
Molded-case Circuit Breaker (Q1)	Model	DWB160B63-3DX	DWB160B125-3DX
	Current	63 A	125 A
	Maximum Short-Circuit Breaking Capacity (Icu)	18kA (380 V)	
		16kA (415 V)	
Circuit Breaker (Q2)	Model	MDWH-C10	
	Current	10 A	
Circuit Breaker (Q3)	Model	MDWH-C6	
	Current	6 A	
NH aR Fuse (F1;F2)	Model	FNH00-100K-A	FNH1-315K-A
	Current	100 A	315 A

5 EMERGENCY STOP PUSHBUTTON

The WEMOB-STATION charging station has an emergency stop pushbutton on the front. In emergency situations the button must be pressed! When pressed, the charging in progress will be immediately interrupted, and the power output safely de-energized, protecting the user and the station itself. The display will remain on to report the fault and show instructions to the user.

The display will remain on to report the fault and show instructions to the user.

NOTE!

- DO NOT PRESS THE EMERGENCY STOP PUSHBUTTON UNLESS THERE IS AN EMERGENCY!
- The emergency stop button must not be used as an option to end a charging procedure or to stop another user from charging;
- The same fault message is shown on the display if the emergency stop button is pressed.

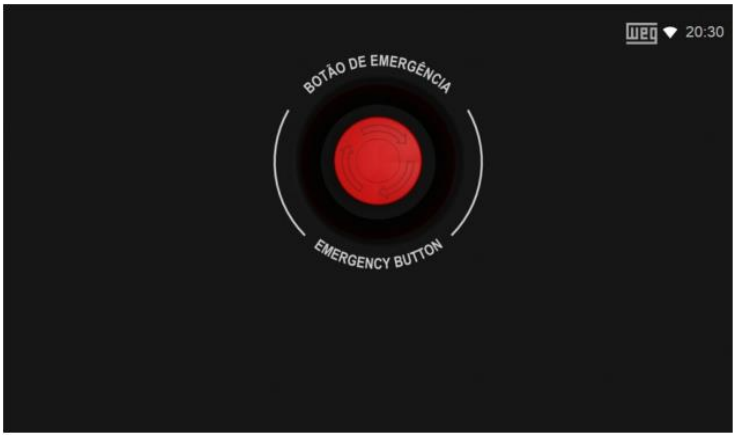


Figure 13: Screen signaling that the emergency button was pressed

Figure 14: Reset system

If there is an emergency, press the emergency stop pushbutton, remove the charging plug from the electric vehicle and inform the charging station manager immediately.

Once the emergency condition is eliminated or it is observed that the button was accidentally or intentionally pressed, unlock the button by twisting it clockwise.

After the emergency pushbutton is reset, the station will restart and perform a complete self-test process. Once no problem at startup is found, the station returns to normal operating state.

6 CONNECTIVITY

The charging stations can have connectivity via wireless data network (Wi-Fi), wired network (RJ45), cellular and RFID (Radio Frequency Identification).

NOTE!
Make sure the charging station model purchased has these functionalities. If necessary, compare the model described on the product identification label with the "smart code" informed in the WEMOB line catalog, available for download on the website: **www.weg.net.**

Smart remote management is carried out through the global protocol Open Charge Point Protocol – OCPP 1.6J, which allows charging stations to be connected with users and operators, through portals in the cloud.

The OCPP 1.6J communication protocol enables connection to management platforms. The protocol used in the WEMOB-STATION is open, enabling the connection to the WEMOB Management Platform or third-parties.

Through the WEMOB Management Platform it is possible to collect data and manage the charging stations remotely. The platform consists of the WEMOB Station Fleet Management, which enables registration, user management, usage management and charging for the use of charging stations, for electric vehicles.

User identification (authentication) is done through RFID cards or the WEMOB EV Drivers application. With the app, the user can access the location of the stations on the map, get real-time status of connectors (free, busy, in maintenance), statistics and usage history.

The WEMOB STATION is also compatible with third-party management platforms.

NOTE!
Access to recharging stations other than domestic ones through the app is an optional item, included in the WEMOB® Management Platform service contract. For more information, please contact your regional sales representative.

To download the WEMOB EV Drivers app, go to the Google Play app store or the App Store of your smartphone menu. Type WEMOB EV Drivers in the search field or scan the QR Code below for download.

DISPONÍVEL NO Google Play

Baixar na App Store

6.1 COMMISSIONING

The charging station is commissioned through the WEMOB EV Drivers app or web pages implemented in the station firmware. For the option of WEB pages, the station generates an "access point", which is a Wi-Fi network named WEG-EVSE-xxx, so that another device (smartphone, tablet, computer, notebook etc.) can access the station settings.

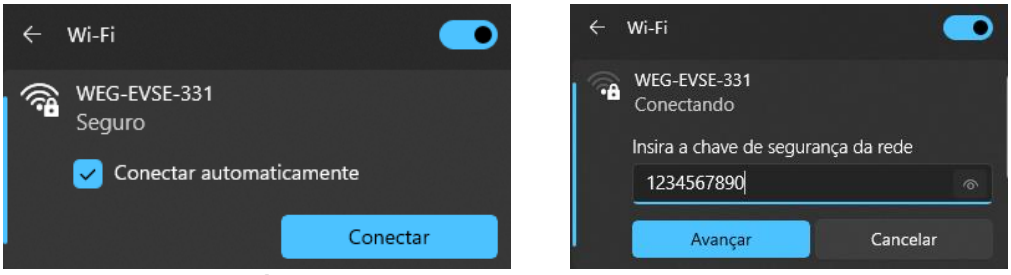
NOTE!

- The real name of the WEG-EVSE-xxx network is individual and varies by device, where xxx represents an alphanumeric combination;
- The “access point” generated by the charging station remains active for ten (10) minutes after the station is powered up. After this time, it is necessary to restart the station;
- Some devices may not be compatible with the "access point" generated by the station; if this occurs, use another device (another brand or model).
- Once the commissioning is completed, the "access point" is automatically turned off.
- After the station is commissioned once, even if the station is restarted or powered off, the information filled in during commissioning will be retained, so the "access point" will not be activated again in these cases. The "access point" will only be activated again allowing the editing of commissioning information if a factory reset of the product as described in Section 6.6 FACTORY RESET on page 42.

To commission the charging station, follow the instructions below:

1. Power up the charging station;

2. Within up to 10 minutes after energization, connect your computer or mobile device to the WEG-EVSE-xxx WiFi network. If you are using a computer or notebook with Windows® operating system, left-click on the network icon (or) in the lower right corner of the taskbar. The representation of these icons varies according to the installed version of Windows®. The utility will display all available wireless networks in your area. Click on the network identified by the SSID (identification name) WEG-EVSE-xxx and then click "Connect".



a) **b)**

Figure 15: (a) WEG-EVSE-xxx Wi-Fi Network (b) Example of network security key

In the next window, enter the access password. For charging stations with firmware version 2.6.0 or higher, the password is numeric and unique for each charging station and consists of 10 numbers (e.g., 1234567890), which are printed on the label of the product, in the product, under "SERIAL". For stations with firmware versions earlier than 2.6.0, the access point password is the same for all units: Password: password.

NOTE!

- If you want to perform the configuration using a mobile device (smartphone, tablet, etc.), we recommend deactivating the mobile data network (3G/4G etc.). To perform this procedure, it is recommended to be at a maximum distance of 1.5 m from the charging station;
- If you are using a computer or notebook, disconnect the Ethernet network cable if one is connected, and then turn on the Wi-Fi network card.

Open the internet browser (we recommend using the latest versions of Google Chrome®, Mozilla Firefox®, or Microsoft Edge®) and access the address http://setup.com or http://10.10.10.1.

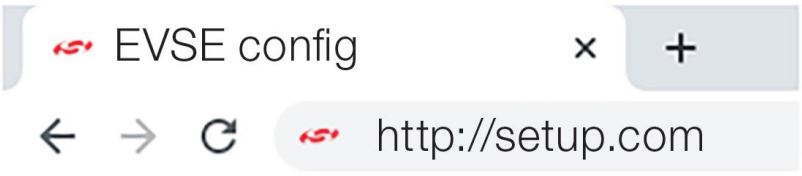


Figure 16: Access via web browser

3. Fill in the fields on the commissioning page according to the instructions below:

Information: this field is informational only and contains the serial number of the station and the firmware version. No action is required.

Connectivity: in this field, you can select one of the available connectivity options. The options are:

- Wi-Fi: uses the wireless network interface.

- Cellular: uses mobile data network (3G/4G).

- Ethernet: uses wired Ethernet network.

- Offline: disables all connectivity of the charging station. Following this, instructions will be provided on how to fill in the fields for each type of connectivity.

NOTE!
Only one connectivity can be active on the charging station, meaning that when choosing, for example, Wi-Fi connectivity, even if the station has Ethernet and Cellular connectivity available, these will be automatically disabled while Wi-Fi is the active connectivity.

Offline: disables all network interfaces.

Does not use OCPP functions and the date and time of the station are configured through the Date/Time field.

Figure 18: Configuration to set the station offline

Wi-Fi: when selected, it will enable the Wi-Fi network interface. The selection of the Wi-Fi network will be made on the next web page after clicking the "Send" button.

Figure 19: Selection to enable Wi-Fi connection

Ethernet: when selected, it will enable the wired network interface via Ethernet (RJ45).

DHCP enabled: the station obtains an IP address automatically.

DHCP disabled: the settings must be defined manually.

IP address: the IP address is assigned manually by the user.

Subnet Mask: default network mask 255.255.255.0

Gateway: usually the IP address of the router.

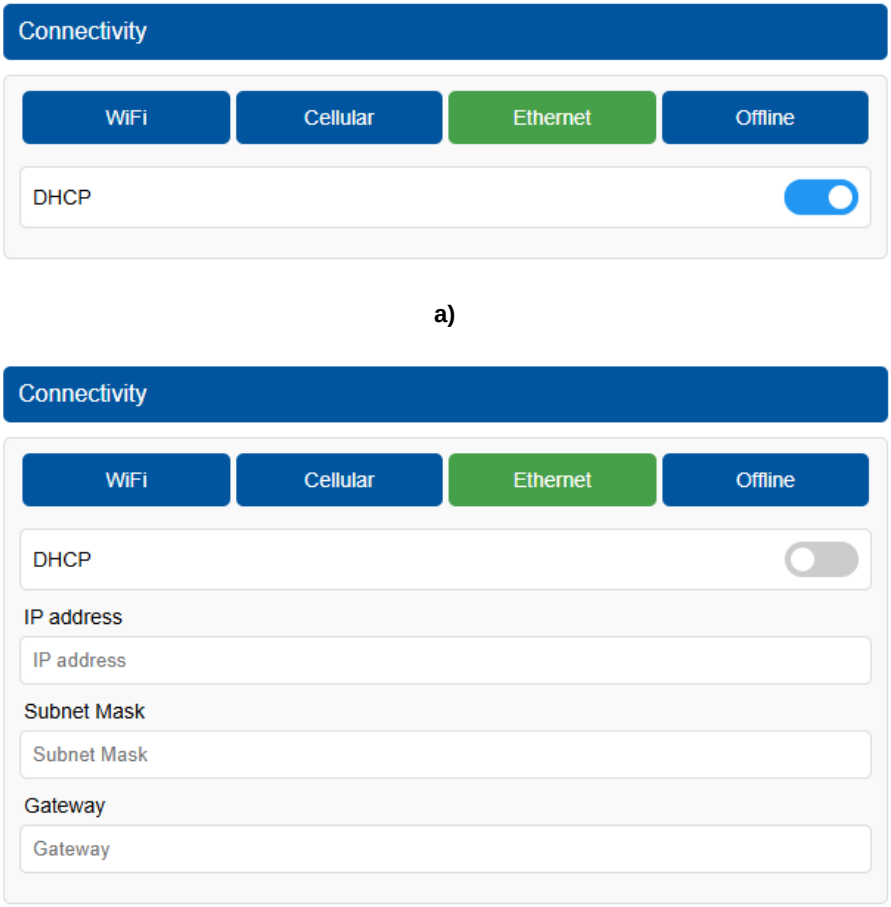


Figure 20: (a) Selection to enable Ethernet connection via DHCP (b) Selection to enable Ethernet connection via static IP

Cellular: when selected, it will enable the mobile data network interface (3G/4G).

Next, you can configure the APN (Access Point Name), the user (User), and the password (Pass) of the cellular interface.

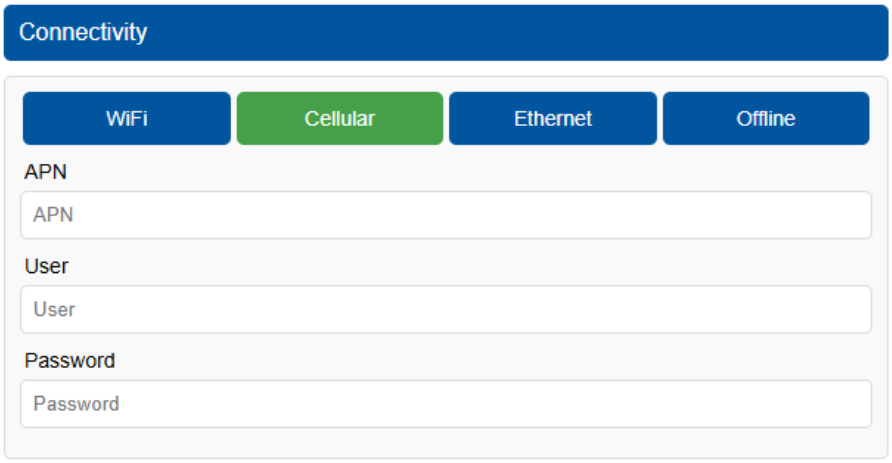


Figura 21: Selection to enable Cellular connection

NOTE!
Check with your cellular operator for APN, username and password settings;

OCPP:

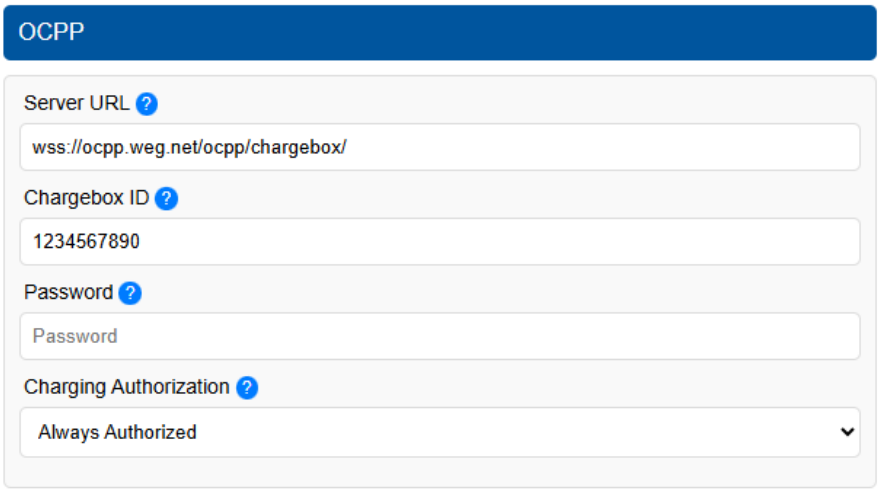


Figure 22: OCPP server settings

Server URL: text field for the address of the WEG or third-party OCPP server. Example WEG Server: wss:// ocpp.weg.net/ocpp/chargebox

NOTE!
- It is possible to select the security level of the WebSocket protocol by using ws:// or wss:// at the beginning of the URL filled in the Server URL field. ws:// is the non-secure version of the protocol and should be used only in trusted networks or for local testing.
- Use wss:// whenever security is essential, as this protocol uses TLS (Transport Layer Security) encryption to protect against interceptions.

Charge Box ID: text field for identifying the station on the OCPP server.

NOTE!
- This field is already filled in at the factory, and it is not recommended to edit it, as it is a unique identifier. Editing this field may pose risks to data security, which is not covered by the product warranty
- Spaces and special characters are not allowed;
- Can be used: _ (underscore) and - (hyphen);
- There is a distinction between uppercase and lowercase letters.

Password: fill in with the password of the OCPP server to which the station is pointing.

NOTE!
- To avoid incompatibility with some servers, passwords of 16 characters or more are accepted. Passwords shorter than this length will not be used.
- In some cases, the server may not require a password.

Charging Authorization: it defines whether the charging station requires authentication to start charging.

Three (03) authorization modes are available:

Always Authorized: allows recharges without authentication. Select this option if you want to allow free access to recharges.

Authorized by Local List: user identification (authentication) is done through RFID cards registered in the "Local List". This list is managed by the station and does not integrate with the OCPP server.

Authorized by OCPP Server: authorization is provided by the OCPP server. In this authorization mode, users and their RFID cards must be registered on the OCPP platform.

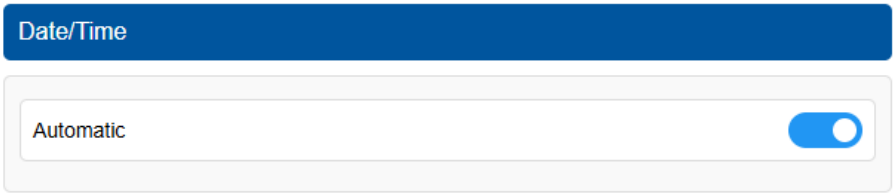
NOTE!

- The Always Authorized and Authorized by Local List options can operate offline without connection to data networks or OCPP server;
- Refer to the WEMOB EV Drivers and WEMOB Station Fleet Management guide for more information about the platform.

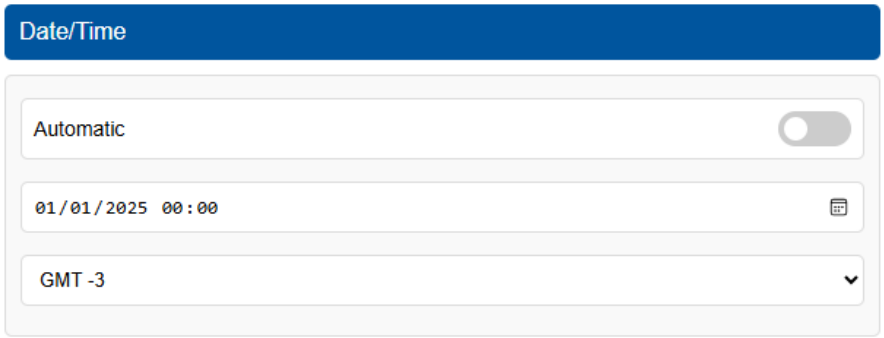
Date/Time: enabled by default.

Enabled: the date and time fields are automatically filled based on the data from the device commissioning the station (cell phone, laptop etc.).

Disabled: allows the user to manually select the date and time.



a)



b)

Figure 23: (a) Automatic Date and Time (b) Manually Entered Date and Time

Configuration:

System Health:

- Enabled: WEG Group may periodically release firmware updates to improve the performance and security of the equipment. By enabling this option, you allow WEG Group to collect information from this charging station that can help in fault detection and enable remote firmware updates. Check the terms of use and data privacy available on the commissioning page for more details.

- Disabled: disables this feature.

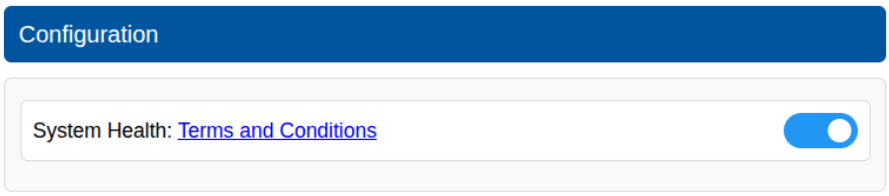


Figure 24: System Health configuration of the charging station

Press the "Send" button, and a message will be displayed informing the completion of this configuration step: "User configuration completed successfully!". By pressing "OK," the user will be directed to the Wi-Fi network configuration page

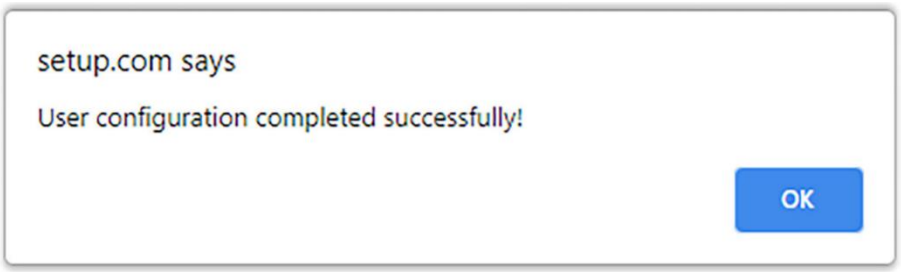


Figure 25: Configuration Setup Completed

4. On the Wi-Fi network configuration page, select the network you want to connect the station to, in this example, the Wi-Fi network RUT955_4D73. Enter the network password in "Password"; it is not necessary to select "Reconnect to device". If needed, in "Advanced Settings" you can configure the network IP address. "DHCP": the station obtains an IP address automatically, "Static": IP address manually assigned by the user. These fields should be filled out as presented in the previous item "Ethernet".

To finish, click "Connect". If the connection is successful, a message will be displayed informing the completion of the setup: "Setup is complete".

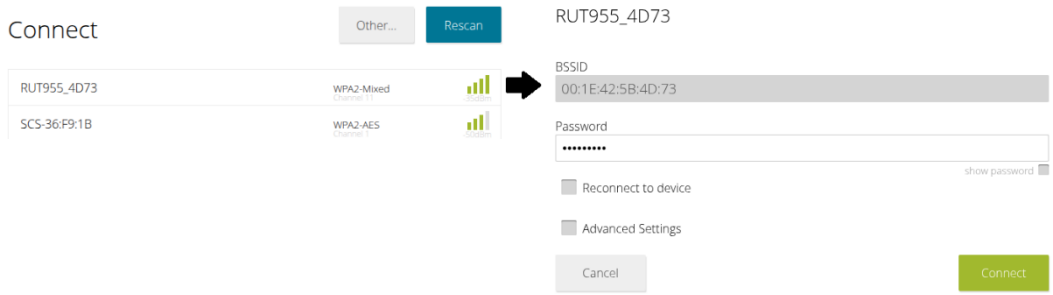


Figure 26: Wi-Fi network configuration page via web browser

NOTE!

- On some access points the password verification may fail, and the message "Failed to verify network password" will be displayed. If you are sure that the entered password is correct, just click on "Save & Continue";
- The option "Reconnect to device" can remain unselected.
- Whenever the name or password of the Wi-Fi network of your main router is changed, it will be necessary to reconfigure the charging station. For this, it is necessary to reset the station and configure it again.

5. In case of an error, restart the station and repeat the configuration procedure.

It is possible to change the Wi-Fi connection and connect the station to another network in two ways: through the current IP of the station or by resetting the station Wi-Fi settings. Repeat procedures 4 and 5. In procedure 4, use the current IP address of the charging station. For this, it is necessary to know the IP address of the station, for example: 192.168.100.55.

NOTE!
For managed networks, make sure that ports 53, 80 and 443 are allowed in the router configuration of the charging station, as it uses these ports to communicate with the WEG OCPP Server. For operation with other servers, please contact your CPO.

6.2 WI-FI NETWORK

The charging station needs to be installed in a location with a good level of Wi-Fi signal. If necessary, install repeaters or a wireless "access point" (the router connects to another router via cable, and the second device acts as a repeater). You can check the Wi-Fi network signal strength using a smartphone or another device, checking if you have full bars on the device. The higher the level, the better the Wi-Fi network signal. They will indicate if the Wi-Fi signal is good in the chosen environment. The charging station has an external antenna to better capture the Wi-Fi network signal.

If it is the first configuration of the station on the Wi-Fi network, the station generates an "access point", a Wi-Fi network identified as WEG-EVSE-xxx, so that another device (smartphone, tablet, computer etc.) can access the station Wi-Fi network settings.

NOTE!
- The charging station only connects to IEEE 802.11 b/g/n, 2.4 GHz Wi-Fi networks with WPA2/ WPA Personal security protocols, which are networks that only require access without the need for a username and password.
- If the registered Wi-Fi network is not available during power-up or charging station operation, it will automatically reconnect once the Wi-Fi network is available again.

6.3 ETHERNET

NOTE!
- Some models of charging stations have an RJ45 connector at the bottom for connection to the Ethernet network. Check if the purchased station model has this conector;
- The charging stations are not prepared to work in networks that require user and password authentication (proxy).

The RJ45 connector follows the Fast Ethernet 100BASE-TX standard, using two (02) pairs of cables for data transmission and reception. Connect the cable from the router to the charging station at the RJ45 port. Use standard Ethernet cable, 100 Base-TX (Fast Ethernet), CAT 5e or higher, with a maximum length of 100 m. To avoid interference in communication, the power cables must be separated, as far as possible, from the ethernet communication cable. Pass the RJ45 ethernet cable through the duct located at the base of the station through the metal structure to the RJ45 connector available on the electronic control board.

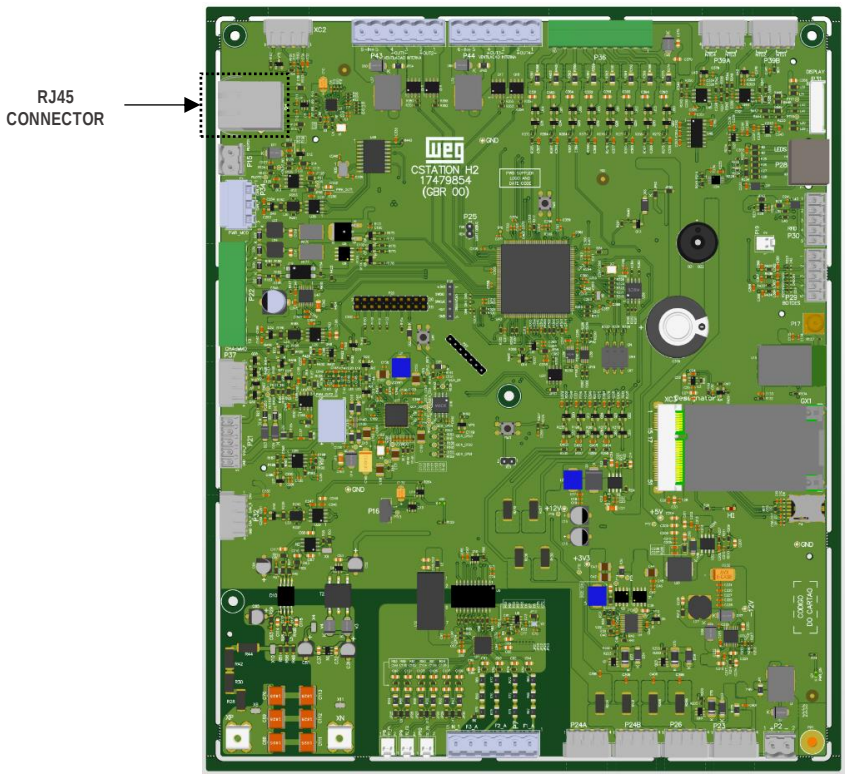


Figure 27: Location of the RJ45 connector on the electronic control board

6.4 CELLULAR

NOTE!
Some models of charging stations have a module for cellular networks (LTE). Check if the station model you purchased has this functionality.

The charging station needs to be installed in a location with a strong cellular signal. You can check the signal strength using a cell. Check if you have full bars on the device. The higher the level, the better the cellular network signal. They will indicate if the signal of the cellular network is good in the environment chosen.

The charging station has an external high-gain antenna and is compatible with LTE mobile networks, allowing the use of a SIM card with a data plan to connect the station when it is out of range of a Wi-Fi network or a wired Ethernet (RJ45) network.

NOTE!
- This product works exclusively with SIM card in nano size (12.3 mm high × 8.8 mm wide).
- When hiring a data plan with a telephone operator, be aware of this detail.

ATTENTION!
Make sure the station is turned off before inserting or removing the SIM card. Otherwise, the station and/or SIM card may be damaged.

To install the charging station SIM card, follow the instructions below:

1. Open the charging station front door;
2. Find the SIM card slot in the central right part of the electronic control card;

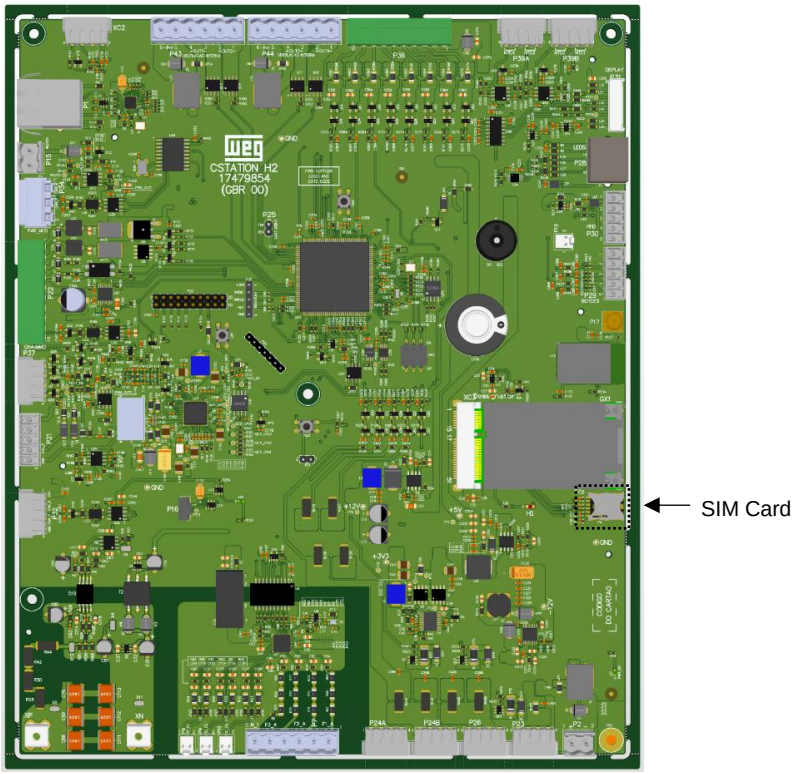


Figure 28: Location of the SIM card slot on the electronic control board

3. Align the SIM Card with the slot on the electronic control board. For the correct insertion, the beveled edge of the SIM card must be aligned to the right and the metal contacts face downwards. See the drawing guiding the SIM card assembly in the slot;

4. Carefully insert the SIM card, lightly press it with your index finger up to the end of the slot;

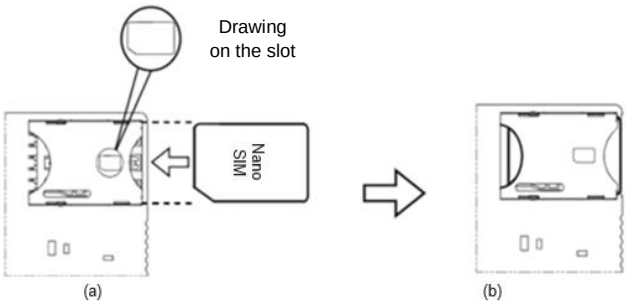


Figure 29: Procedure to insert the SIM card

5. Close the front door.

To remove the SIM Card from the charging station, follow the instructions below:

1. Open the charging station front door;

2. At the bottom of the SIM card slot is a semicircle. Use this opening to carefully remove the SIM card with your index finger;

3. Remove the SIM card;

4. Close the front door.

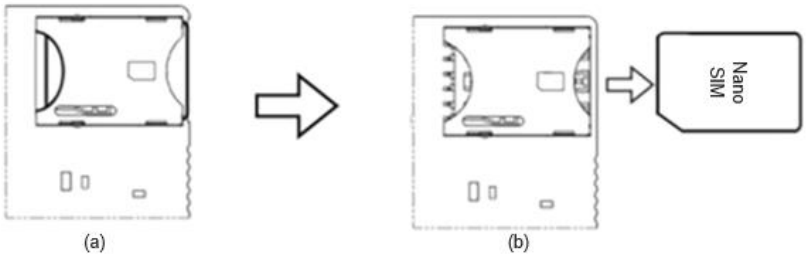


Figure 30: Procedure to remove the SIM card

6.5 RFID

The factory setting of the WEMOB-STATION charging station does not require authentication, with free access for charging in the "Always Authorized" operating mode.

To require authentication, this setting must be changed according to Section 6.1 COMMISSIONING on page 29. In the OCPP Config field, select the "Authorized by Local List" mode in Charging Authorization. Each RFID card has a unique identification number (ID) pre-recorded at the factory.

The charging station is compatible with RFID cards/tags with operating frequency of 13.56 MHz, RF interface ISO/IEC 14443 A.

The RFID cards can be registered locally or through the OCPP server.

To register cards locally, one card will be added to the Local List as "Master" administrator and the others as "User". The "Master" card is used to manage (add/delete) "User" cards.

NOTE!

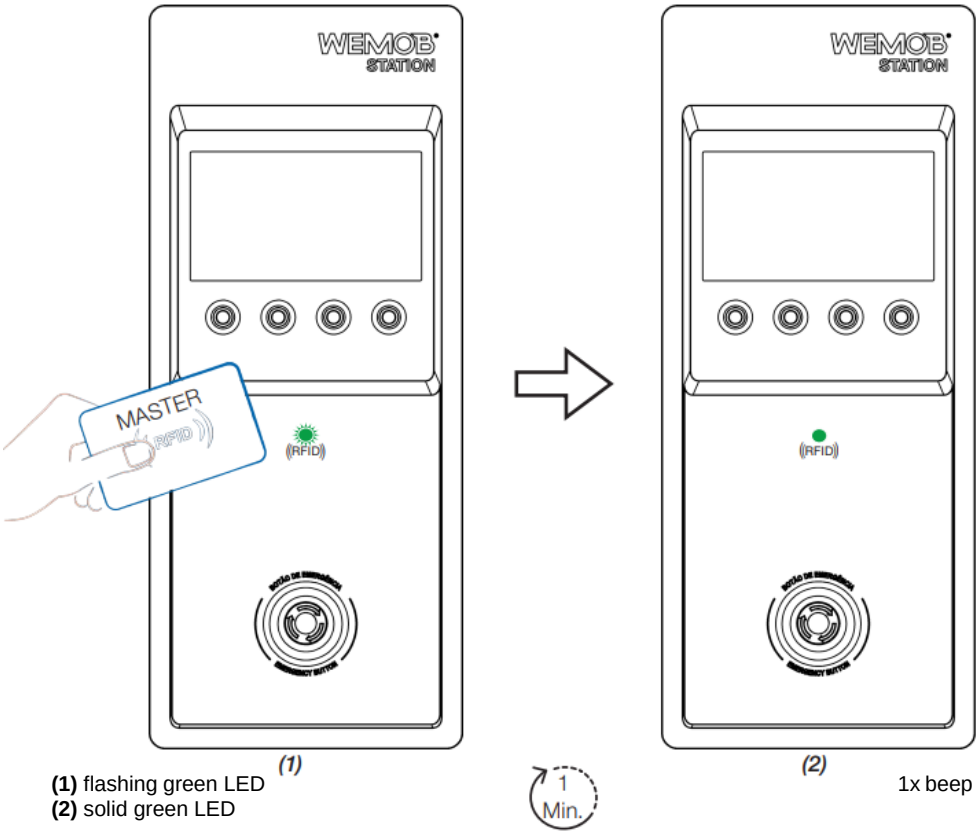
- During the card registration procedure, it is not allowed to start or stop a charging process using the RFID card;
- The procedure for adding or excluding cards must be done with the station in the "Available" mode;
- RFID cards are supplied in packs with ten (10) units. Material 15759624 – WEMOB-RFID;
- Identify the "Master" card with a label or permanent marker. Do not perforate the card.

6.5.1 Registration of the "Master" RFID Card

When the charging station is turned on, it verifies whether a "Master" card is already registered. If not, the RFID LED will flash for approximately one (01) minute, waiting for the first RFID reader card to approach, which will be considered the "Master" card. After this period, if no card comes near, the station starts its normal operation without the RFID Local List functionality (authorization via OCPP only). After this period, the station must be restarted (rebooted) to enter the registration mode again.

To locally register the "Master" card, follow the instructions below.

1. Power up the charging station, and the RFID reader LED will flash green for one (01) minute;
2. Bring the "Master" card close to the RFID reader;
3. If the registration is successful, the station will emit one (01) short beep and the RFID reader LED will change to solid green;
4. If one (01) minute has elapsed, restart the station and repeat the procedure.



(1) flashing green LED
(2) solid green LED

Figure 31: Registration of the RFID "Master" Card

NOTE!

- Only one "Master" card can be registered;
- The "Master" card cannot be used to complete a charging procedure;
- In case of loss of the "Master" card, a Factory Reset must be performed. More information in Section 6.6 FACTORY RESET on page 42.

6.5.2 Registration/Exclusion of the "User" RFID Card

After registering the "Master" card, it is possible to add or delete "User" RFID cards. To register "User" cards, first the "Master" card must be brought close to the RFID reader, and then the station will enter the "User" card registration mode. During this process, the RFID reader LED will flash green for one (01) minute, waiting for the "User" card to approach.

To locally register the "User" card, follow the instructions below.

1. Power up the charging station, and the RFID reader LED will turn on solid green indicating that there is a "Master" card registered in the Local List;
2. Bring the "Master" card close to the RFID reader. The station will emit one (01) short beep, and the RFID reader LED will flash green for one (01) minute;
3. Bring the "User" card close to the RFID reader;
4. If the registration of the "User" card is successful, the station will emit one (01) short beep, and the RFID reader LED will turn solid green;
5. To register other "User" cards, repeat steps 2 to 4.

NOTE!
Repeat steps 2 to 4 to register new "User" cards. The sequence "Master" -> "User1" -> "User2"... is not valid. For each new "User" card, repeat the procedure mentioned in the steps above.

To exclude a "User" card from the Local List, the procedure is the same as for inclusion—just repeat the previous steps. If the card is already registered in the Local List, it will be deleted. If the exclusion is successful, the station will emit two (02) short beeps, and the RFID reader LED will change to solid green.

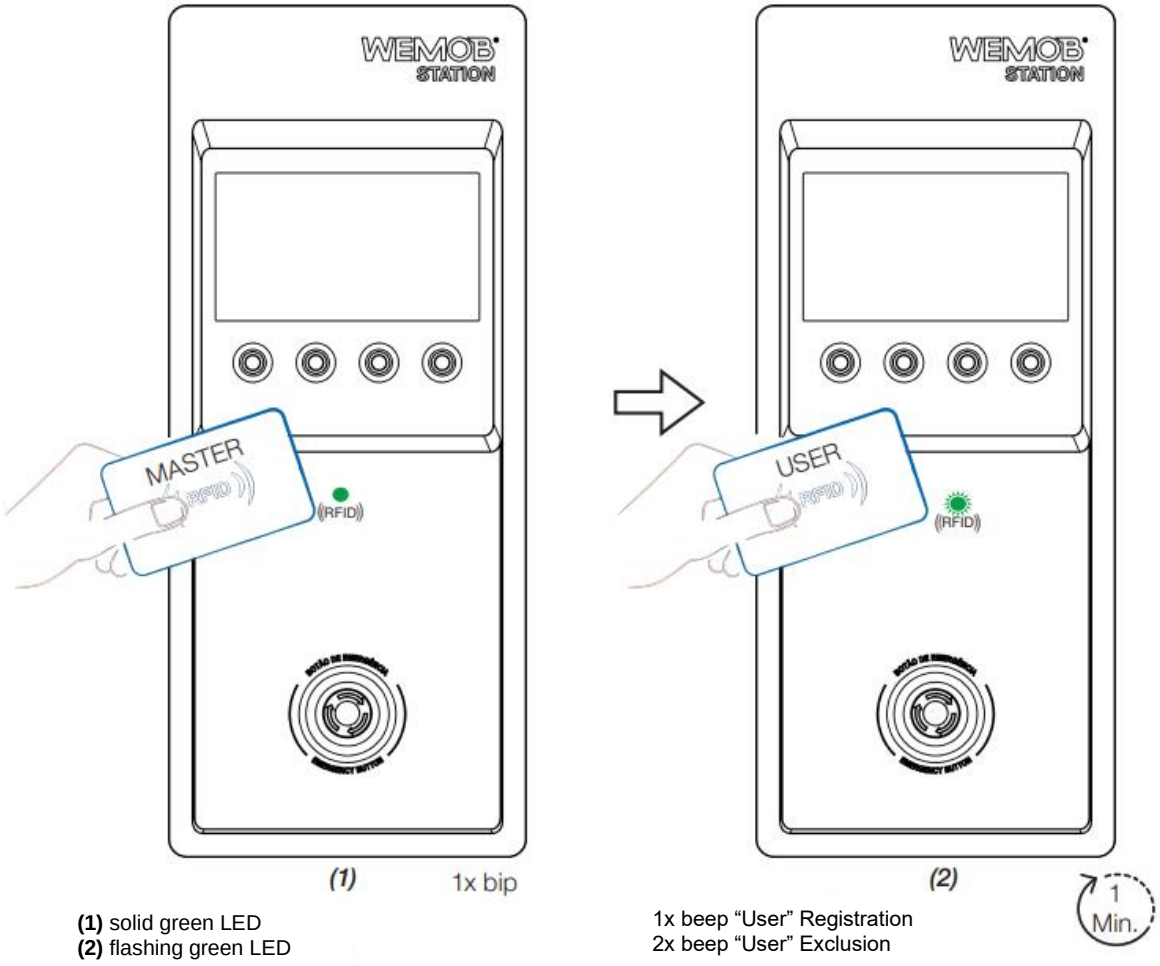


Figure 32: Registration/Exclusion of the "User" RFID card

NOTE!

- The charging station allows the registration of up to 100 (one hundred) "User" RFID cards;
- The station will emit a long beep when an unregistered card approaches the RFID reader.

6.5.3 Procedure for Charges with RFID

In this mode of operation, the user will need a "User" card, duly registered by the person responsible for managing the station, to start a charge.

To start charging the electric vehicle, follow the instructions below:

1. Check if the station is in "available" mode (ready for use), with the continuous luminous indication in GREEN color.

2. Bring the "User" card ((RFID)) closer to the station reader.

3. After confirming the identification of the user card "User", the station will signal for one (01) minute through the "available" LED in flashing GREEN color that the charge has been authenticated.

4. Remove the plug from the charging station and connect it to the vehicle. After connecting to the vehicle, the charging station will signal in continuous YELLOW color. If the connection between the station and the

vehicle is not established within one (01) minute, the station will emit a long beep and return to the "available" mode, with the continuous GREEN, light indication.

5. If the connection is successful, the station will start charging the electric vehicle and will signal in continuous BLUE color.

6. To finish the charge, bring the "User" card close to the reader ((RFID)) or finish using the vehicle.

NOTE!

- Follow the instructions on the back of the WEMOB-RFID card;
- Each vehicle has its own method for complete a charge, for this we recommend reading the vehicle manual for the correct interruption of the process;
- When an unregistered card approaches the RFID reader, the station will emit a long beep.

6.6 FACTORY RESET

If you need to perform a factory reset, change the commissioning settings or delete the Local List of RFID cards (it must be done with the front door open, and the station powered). Find the "SW2 - RESET" button in the central part of the electronic board and keep it pressed for:

- Three seconds (3 s) to delete all commissioning settings and the RFID "Master" card. After this period, the station will emit one (01) short beep. Release the button and wait for the station to restart;
- Five seconds (5 s) to delete all commissioning settings and Local List of cards ("User" and "Master"). After this period, the station will emit two (02) short beeps. Release the button and wait for the station to restart.

DANGER!
Do not touch live components or parts during the Factory Reset procedure. Use an insulating material such as a plastic pen to press the "SW2 - RESET" pushbutton safely.

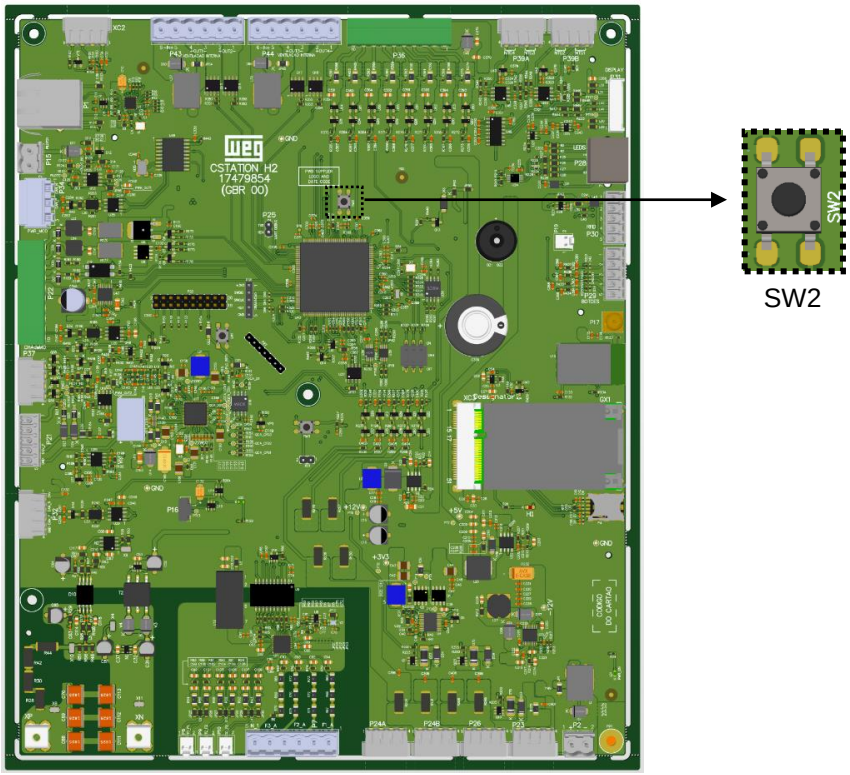


Figure 33: Location of the "SW2 - RESET" pushbutton on the electronic card

NOTE!
The "Master" RFID card can be used to perform a factory reset (*), without the need to open the front cover of the charging station. This procedure deletes all commissioning configurations and Local List of cards ("User" and "Master").

(*) Only available on charging stations with firmware versions equal to or greater than 2.0.0.

To perform the Factory Reset procedure using the "Master" RFID card, follow the instructions below:

1. Bring and keep for twenty seconds (20 s) the “Master” card closer to the reader ((RFID)).

2. The station will emit one (01) beep (short beep) and the RFID reader LED will flash green.

3. After ten seconds (10 s), the station will emit one (01) beep (short beep) every two seconds (2 s), indicating that it will enter the next step of the process.

4. In the time of twenty seconds (20 s), the station will emit two (02) short beeps. Move the "Master" RFID card away from the reader ((RFID)) and wait for the charging station to restart.

6.7 FIRMWARE UPDATE

The market for electric chargers is recent and is constantly evolving. Firmware updates are periodically released to add functionalities and improve the performance of your charging station. Updates keep your charging station at the forefront and allow it to keep up with the latest market developments. Update the charging station with the latest firmware and benefit from additional features.

The update is done remotely using Firmware Over The Air (FOTA) technology, through the "Firmware Update" command via OCPP. The process of downloading these updates wirelessly usually takes between three and ten minutes, depending on your connection speed and the size of the update. It is only possible to download the latest firmware version and not to go back to an old version.

Files are available at: http://updates.weg.net/chargingstation

ATTENTION!
Point at the firmware directory (URI) corresponding to the purchased charging station model, at the risk of damaging the charging station.

6.8 CONNECTIVITY INDICATION

On the upper right corner of the WEMOB-STATION display, an icon of the network connection is shown. The icon indicates the signal strength (Wi-Fi and cellular networks), if the station is commissioned, if it is connected to an OCPP server etc.

- Non-commissioned station:

- Station commissioned but no Wi-Fi, cellular, or ethernet connectivity:

- Stations commissioned, with connectivity, but no connection to an OCPP server (characterized by the exclamation point):

- Station commissioned, with connectivity and connection to an OCPP server:

- Firmware update available (*):

(*) Only available on charging stations equipped with a display whose firmware version is 2.0 or higher.

7 OPERATION

DANGER!
- Before operating the charging station, perform a visual inspection for damage. A damaged charging station must be taken out of service and repaired;
- Do not allow the charging station to be operated by children or persons with reduced mental or sensory capabilities.

After completing the mechanical and electrical installation, the WEMOB-STATION is ready to start operating by activating the “Q1” circuit breaker located on the side of the charging station.

When the charging station is energized, the display shows an opening video, and the status LEDs of the connectors will light solid GREEN, indicating that the station is ready to start charging.

NOTE!
- Check that the emergency stop pushbutton is not activated;
- The emergency stop button must not be used as an option to end a charging procedure or to stop another user from charging.

The WEMOB-STATION charging station features a 10.1” color display that provides a user-friendly interface with detailed instructions and information to start and stop a charging process, including information about charging in progress, charging time and battery charge level, allowing the operation of the charging station in an easy and intuitive way.

The station has three (03) charging authorization modes available, configured in Section 6.1 COMMISSIONING on page 29.

- Always Authorized: Allows charging without authentication. Select it to allow free access to charges;
- Authorized by Local List: The users are identified (authenticated) through RFID cards registered in the “Local List”. Such list is managed by the station and has no integration with the OCPP server;
- Authorized by OCPP Server: Authorization is provided by the OCPP server. In this authorization mode, users and their RFID cards must be registered on the WEMOB platform.

7.1 "ALWAYS AUTHORIZED" OPERATING MODE

It allows charging without authentication (users have free access to charge vehicles). To charge the vehicle, just follow the instructions shown on the display—the instruction screens will appear successively.

NOTE!
- The WEMOB-STATION-MOBILE charging station features either a CCS-2 or GB/T connector, depending on the purchased model.
- The screens in this manual use the 150 kW charging station as an example; therefore, consider the maximum power as 30 kW or 60 kW, according to the purchased model.

To start the charging process:

1. Select connector 2. At this stage, the indication LEDs of the corresponding connector will light in solid GREEN;

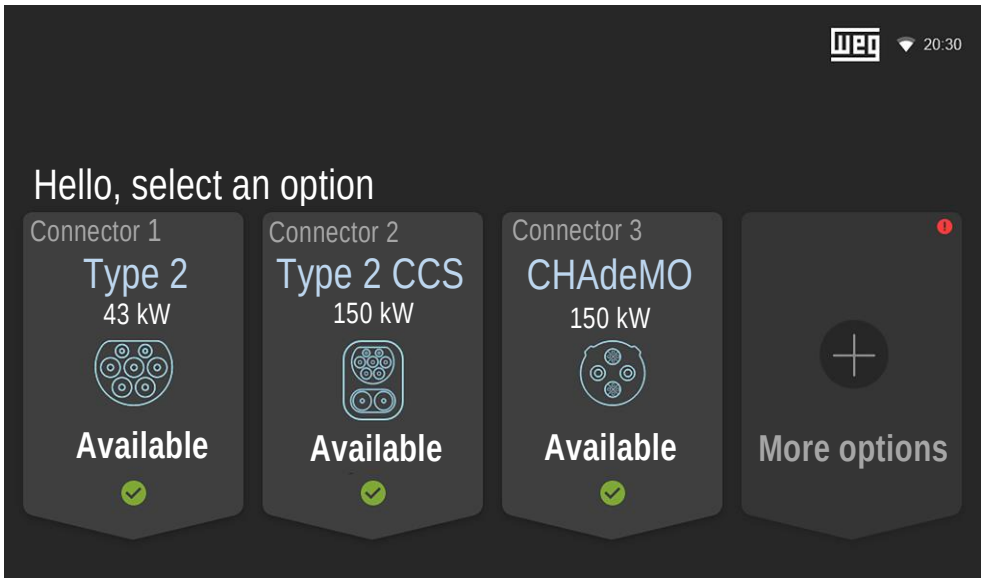


Figure 34: Home screen (example 150 kW)

2. Remove the plug from the charging station and plug it into the electric vehicle;

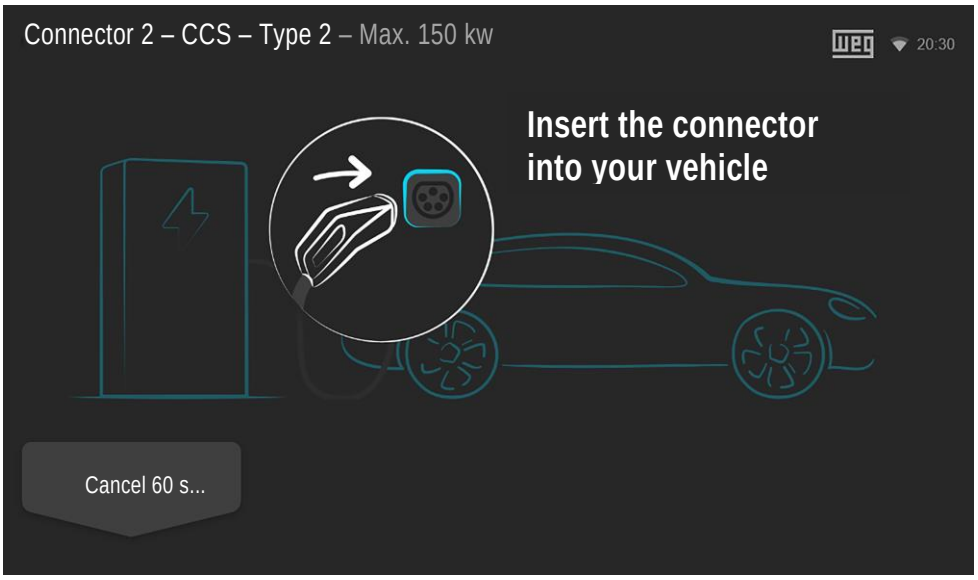


Figure 35: Instruction screen to "Insert the connector into your vehicle"

It is possible to cancel the process by pressing the "Cancel" button. If the connector is not inserted into the electric vehicle within 60 seconds (60 s), the process is automatically canceled, and the display returns to the home screen.

3. After the connection to the vehicle, the station begins a communication and safety testing process. The charging station will indicate it in solid YELLOW. If 60 seconds (60 s) elapsed and the connection between the station and the vehicle is not established, the station will emit a long beep and return to the "available" mode, with a solid GREEN light indication;

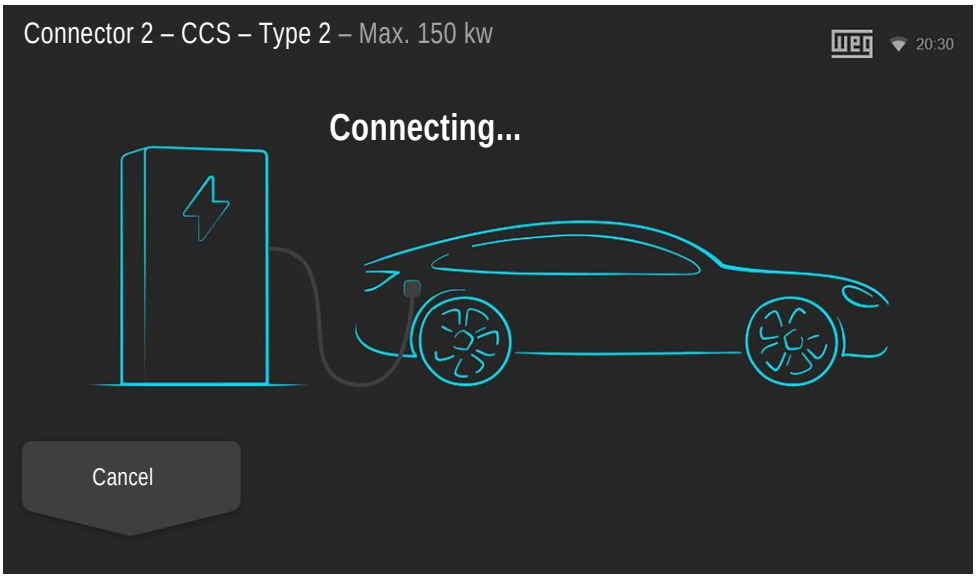


Figure 36: Screen indicating that the electric vehicle has been connected and is in the process of being recognized

It is possible to cancel the process by pressing the "Cancel" button.

4. Within a few seconds, if the connection is successful, the station will start charging the electric vehicle automatically, and the status indication LEDs of corresponding connector will light in solid BLUE. Detailed charging information is shown on the display;

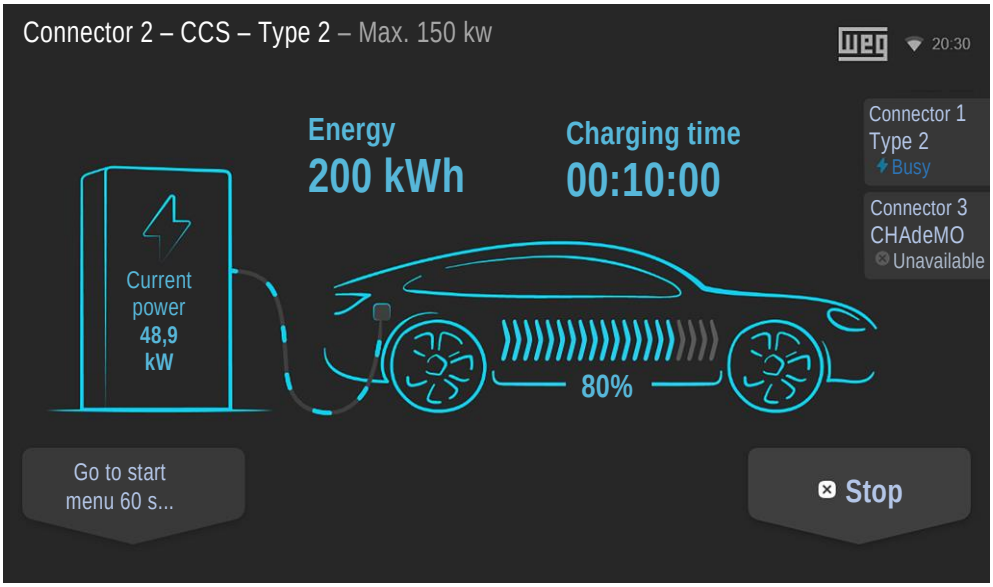


Figure 37: Screen with details on the charging in progress and "Stop" button

It is possible to go to the Home Menu by pressing the "Go to Home Menu" button or waiting for the screen to go automatically after 60 seconds (60 s). It is possible to end the charging process by pressing the "Stop" button at any time, whether the charging is complete or not.

5. To end the charging process, completed or not, in the "Always Authorized" operating mode, the ending is always done by the electric vehicle;

Complete charge: after the electric vehicle battery is fully charged, the charging station will keep the connector locked until the vehicle stops the charging process.

The station LED will be YELLOW, indicating that the charge is complete, and the user intervention is required. The home screen and charging details screen show the message "Completed" next to the selected connector.

User intervention: in this case, the charging process can be ended at any time through the "Stop" button on the screen with details of the charging in progress, or it must be ended through the vehicle. Each vehicle has its own method for ending the charging. For this method, we recommend reading the vehicle manual for the correct interruption of the process.

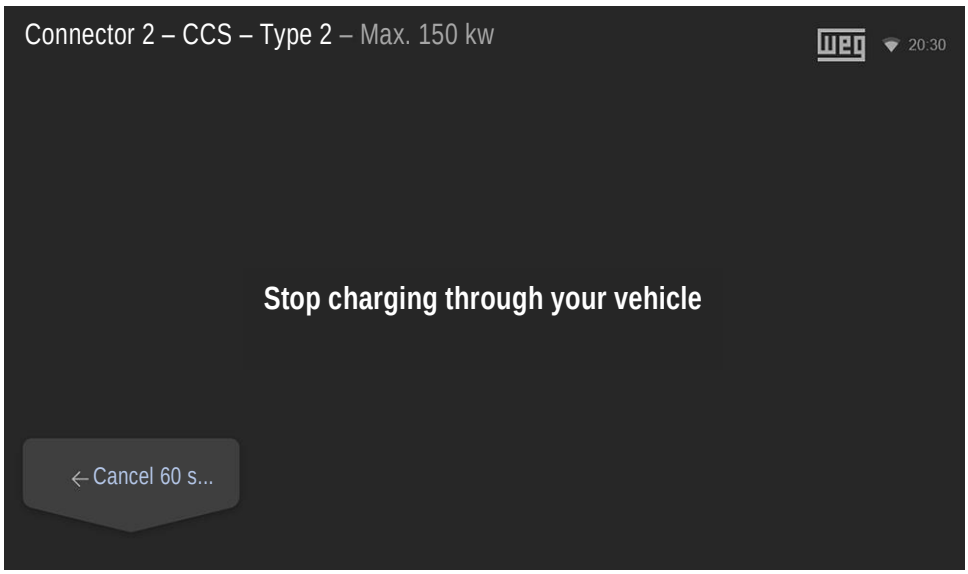


Figure 38: Screen telling you to finish charging the electric vehicle in the "Always Authorized" operating mode

After disconnecting the charging cable from the electric vehicle, the station will return to the start status, with solid GREEN indication. Available for the next charge.

NOTE!
When the electric vehicle is completely charged, insert the connector into the socket located on top of the station. Do not leave the charging cable on the floor.

7.2 "AUTHORIZED BY LOCAL LIST OR OCPP SERVER" OPERATING MODE

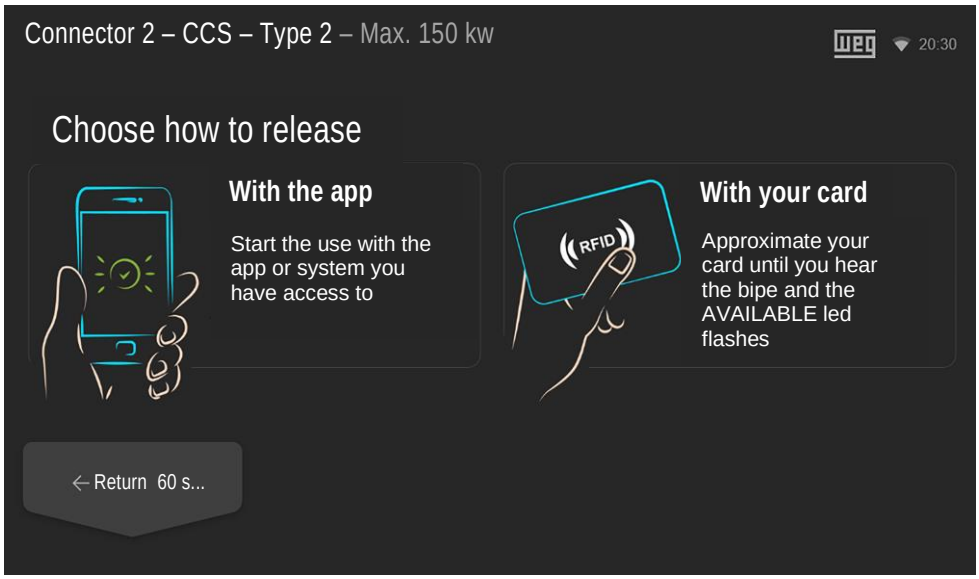


Figure 39: Screen to select the release method (example 150 kW)

1. If selected via app, the charging process must be released and ended by the app;

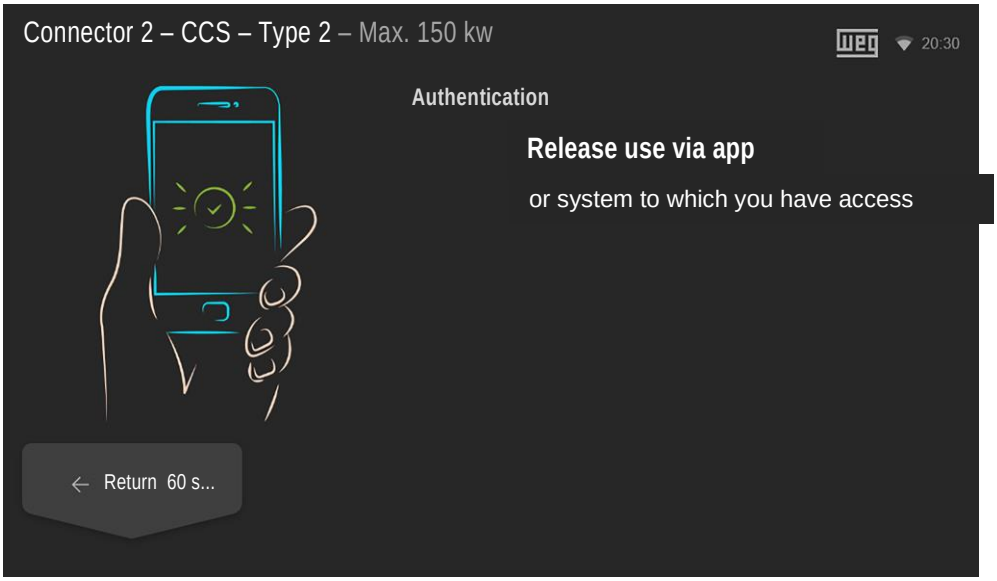


Figure 40: Charging release screen via app

If selected via RFID card, the charging must be released and ended using the RFID card.

Bring the "User" card close to the station RFID reader.

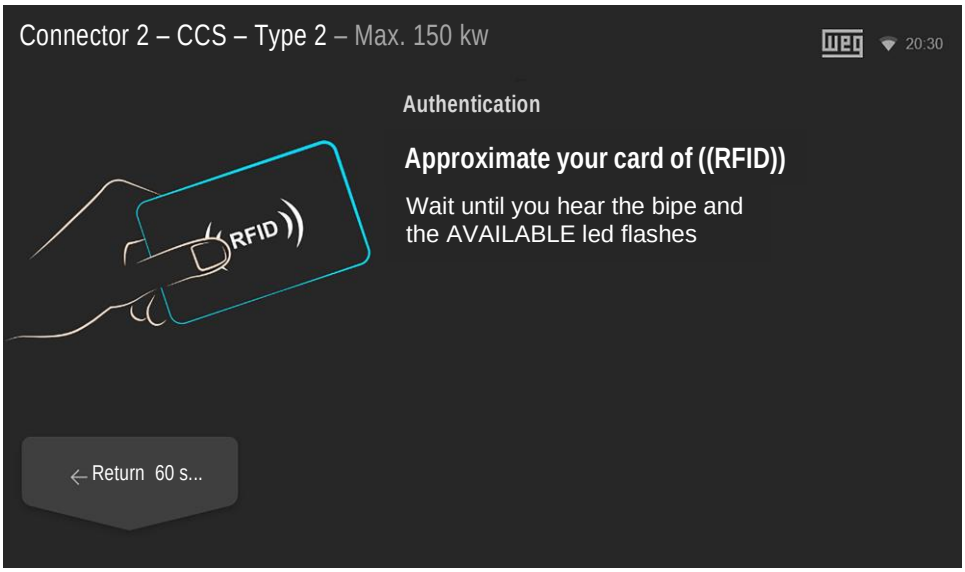


Figure 41: Screen with instructions for releasing the charging via RFID

If the card is not recognized, a new screen will be displayed for the user to try again or informing that the card was declined.

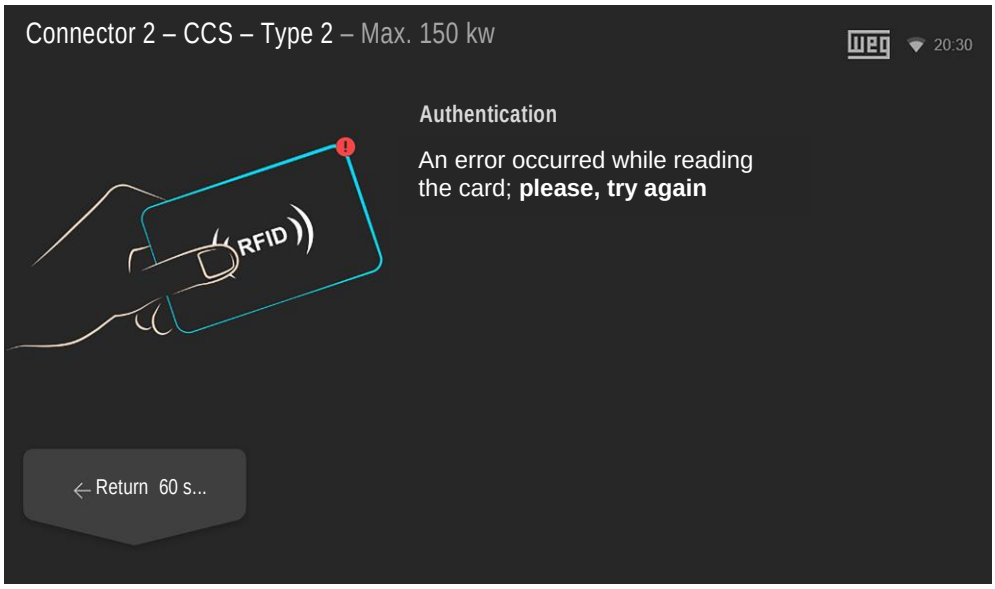


Figure 42: Screen indicating an error in the RFID card authentication

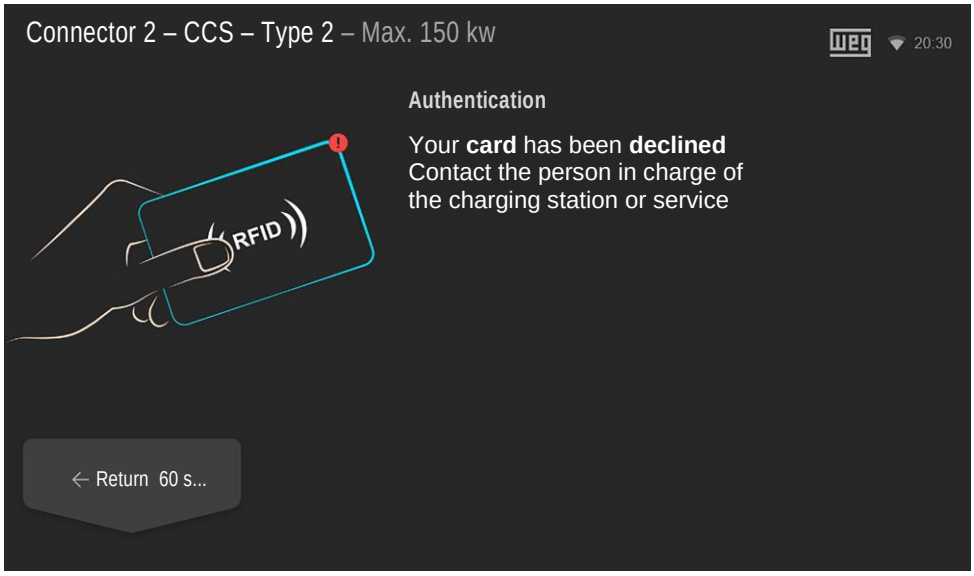


Figure 43: Screen indicating a problem in the RFID card authentication

NOTE!
The station will emit a long beep when an unregistered card approaches the RFID reader.

2. After confirming the user identification, the station "available" LED will flash GREEN for 60 seconds (60 s) to indicate that the charging has been authenticated;

3. Remove the plug from the charging station and plug it into the electric vehicle;

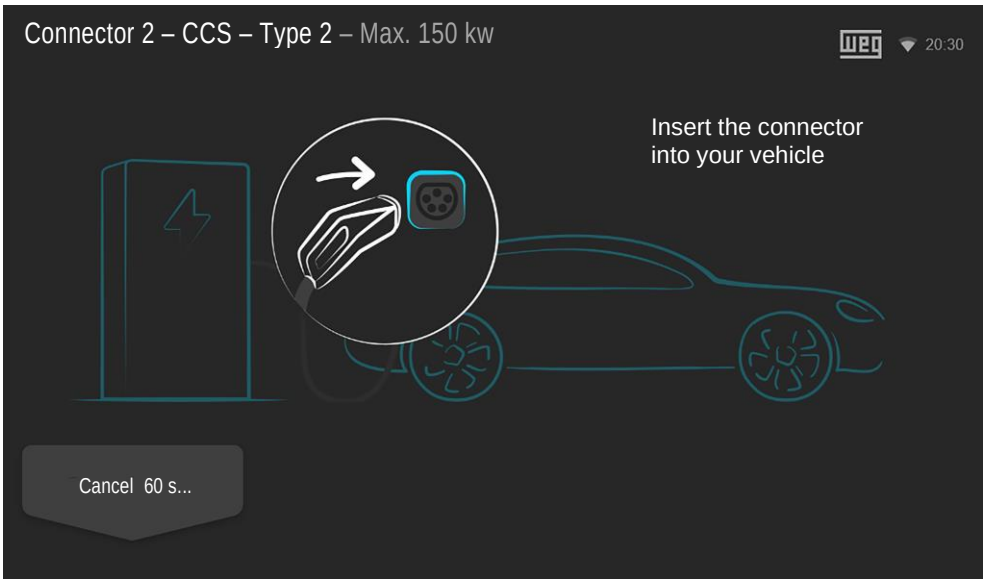


Figure 44: Instruction screen to "Insert the connector into your vehicle"

It is possible to cancel the process by pressing the "Cancel" button. If the connector is not inserted into the electric vehicle within 60 seconds (60 s), the process is automatically canceled, and the display returns to the home screen.

4. After the connection to the vehicle, the station begins a communication and safety testing process. The charging station will indicate it in solid YELLOW. If 60 seconds (60 s) elapsed and the connection between the station and the vehicle is not established, the station will emit a long beep and return to the "available" mode, with a solid GREEN light indication;

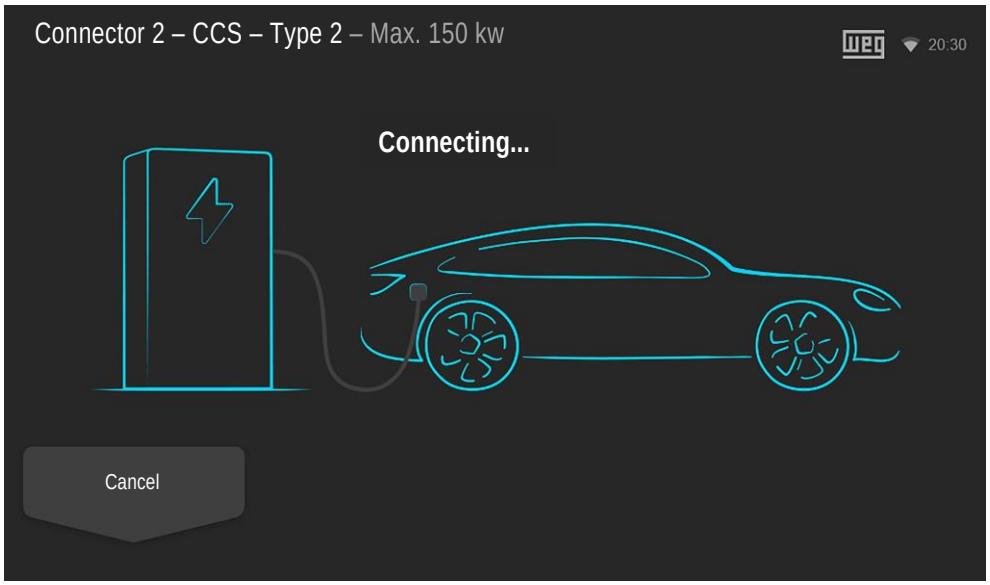


Figure 45: Screen indicating that the electric vehicle has been connected and is in the process of being recognized

It is possible to cancel the process by pressing the "Cancel" button.

5. Within a few seconds, if the connection is successful, the station will start charging the electric vehicle automatically, and the status indication LEDs of corresponding connector will light in solid BLUE. Detailed charging information is shown on the display;

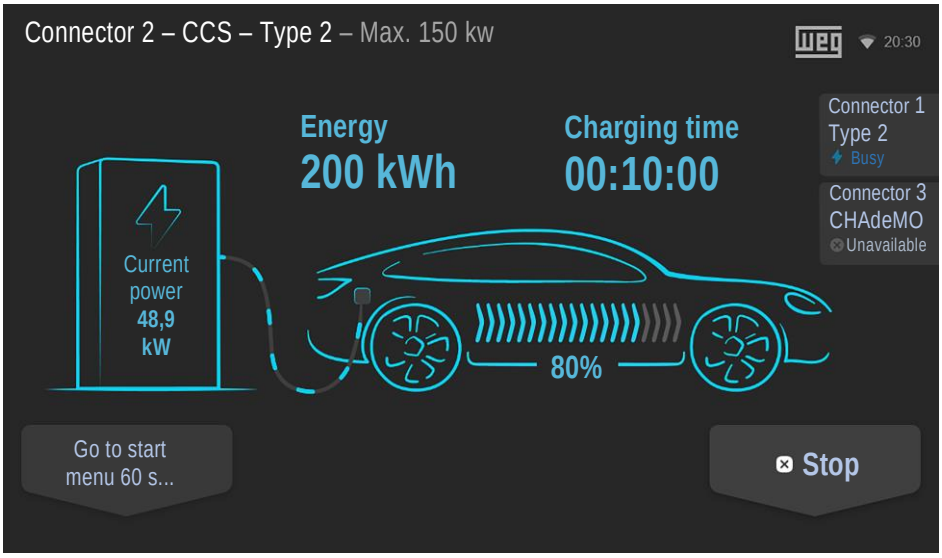


Figure 46: Screen with details on the charging in progress and "Stop" button

It is possible to go to the Home Menu by pressing the "Go to Home Menu" button or waiting for the screen to go automatically after 60 seconds (60 s). It is possible to end the charging process by pressing the "Stop" button at any time, whether the charging is complete or not.

6. To end a charging process, completed or not, end it using the electric vehicle, app or RFID card, according to the selected authentication method;

Complete charge: after the electric vehicle battery is fully charged, the charging station will keep the connector locked until the vehicle stops the charging process.

The station LED will be YELLOW, indicating that the charge is complete, and the user intervention is required. The home screen and charging details screen show the message "Completed" next to the selected connector.

User intervention: in this case, the charging process can be ended at any time through the "Stop" button on the screen with details of the charging in progress, or it must be ended through the vehicle. Each vehicle has its own method for ending the charging. For this method, we recommend reading the vehicle manual for the correct interruption of the process.

Press the "Stop" button, then, if selected via application, the charging process must be ended through the application.

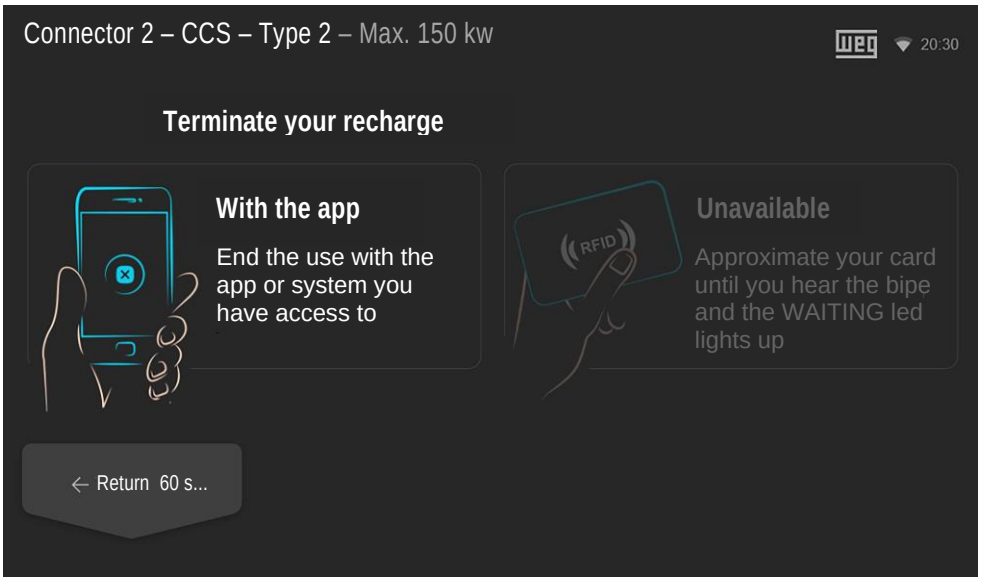


Figure 47: End of charging process via app screen

If selected via RFID card, the charging process must be ended using the RFID card. Bring the "User" card close to the station RFID reader.

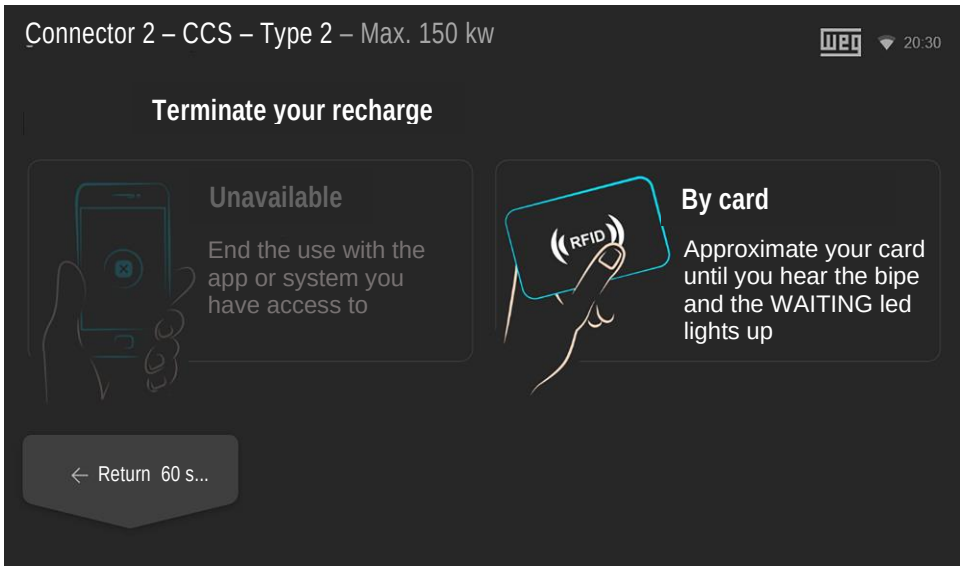


Figure 48: End of charging process via RFID card screen

After disconnecting the charging cable from the electric vehicle, the station will return to the start status, with solid GREEN indication. The connector will be available for the next charging process.

NOTE!
When the electric vehicle is completely charged, insert the plug into the cradle located on top of the station. Do not leave the charging cable on the floor.

7.3 CHARGING DETAILS

The following images show detailed information on the direct current (DC) charging process using the CCS-2 connector.

7.3.1 Charging in Progress

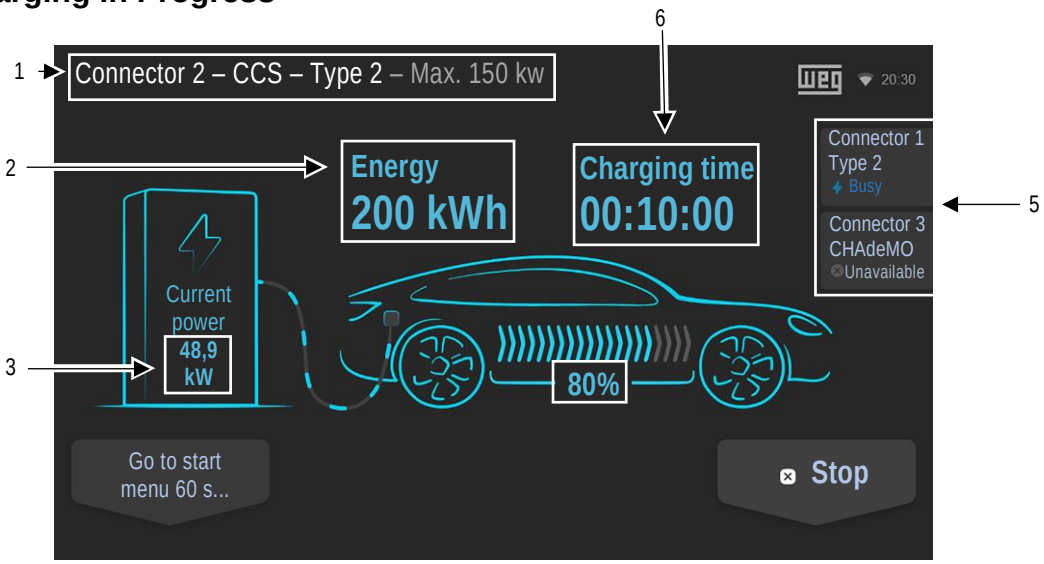


Figure 49: Screen with details of the charging in progress (example 150 kW)

1 - Displays data of the charging in progress on the selected connector. In this example, connector 2, CCS Type 2 direct current (DC) charging connector, whose maximum power supplied is 60 kW;

2 - Displays the energy supplied to the vehicle so far, in kWh;

3 - Displays the present power supplied to the vehicle, in kW;

4 - Displays the percentage level of battery charge;

5 - Displays information on the other connectors (unavailable for the WEMOB-STATION-MOBILE charging station);

6 - Displays the elapsed charging time.

7.3.2 Fully Charged

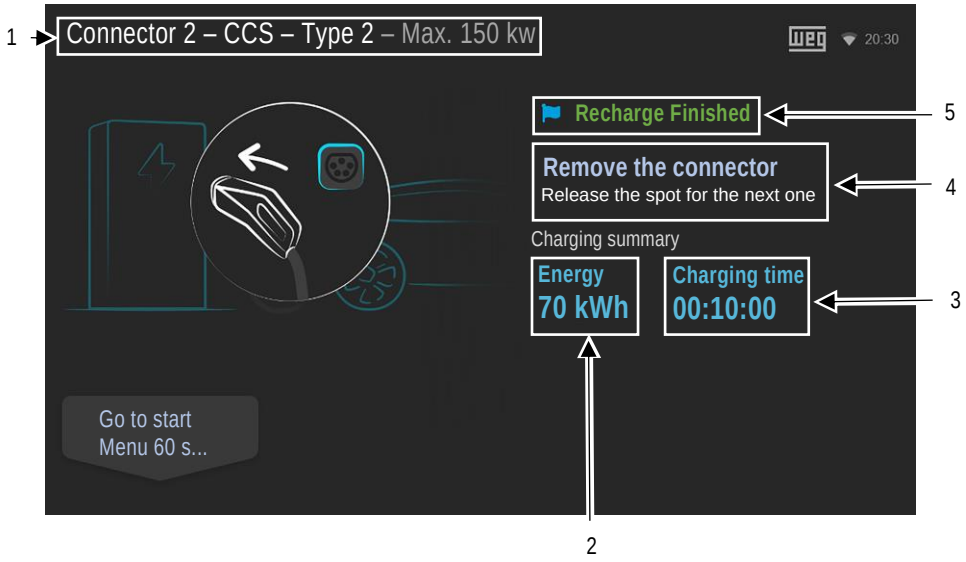


Figure 50: Screen with details of a completed charge

1 - Displays data of the completed charge on the selected connector. In this example, the CCS type 2 direct current (DC) charging connector, whose maximum supplied power is 150 kW;

2 - Displays the energy supplied to the vehicle in kWh;

3 - Displays the elapsed charging time;

4 - Instructions on the screen for the user to remove the connector and release the space for the next user;

5 - Indicated that the charge has been completed.

7.3.3 Error When Charging

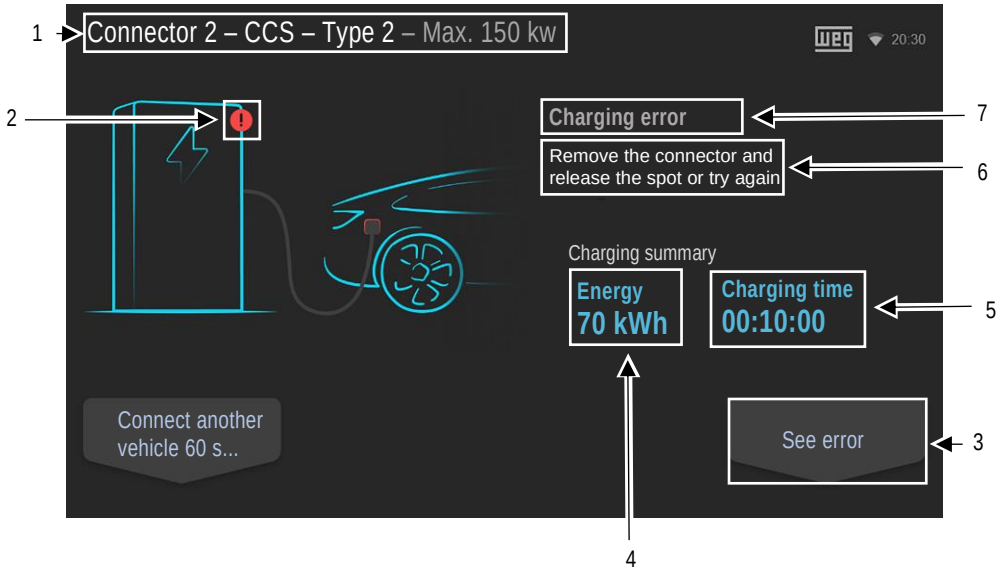


Figure 51: Screen with details on a charging process interrupted due to an error

1 - Displays data on the charge with error on the selected connector. In this example, connector 2, CCS Type 2 direct current (DC) charging connector, whose maximum power supplied is 150 kW;

2 - Indicates that there is an error in the station;

3 - Displays a new window with the error details;

4 - Displays the energy supplied to the vehicle in kWh;

5 - Displays the elapsed charging time;

6 - Instructions on the screen for the user to remove the connector and release the space for the next user;

7 - Indicates that the charging process has ended due to an error.

Clicking on "View Error" displays a screen with the error history, showing date and time, error code, simplified description of the error and status and if the error is active or has already been solved.

7.4 CONNECTOR STATUS

The display shows status symbols over the images of each connector.

NOTE!
The WEMOB-STATION-MOBILE charging station features either a CCS-2 or GB/T connector, depending on the purchased model.

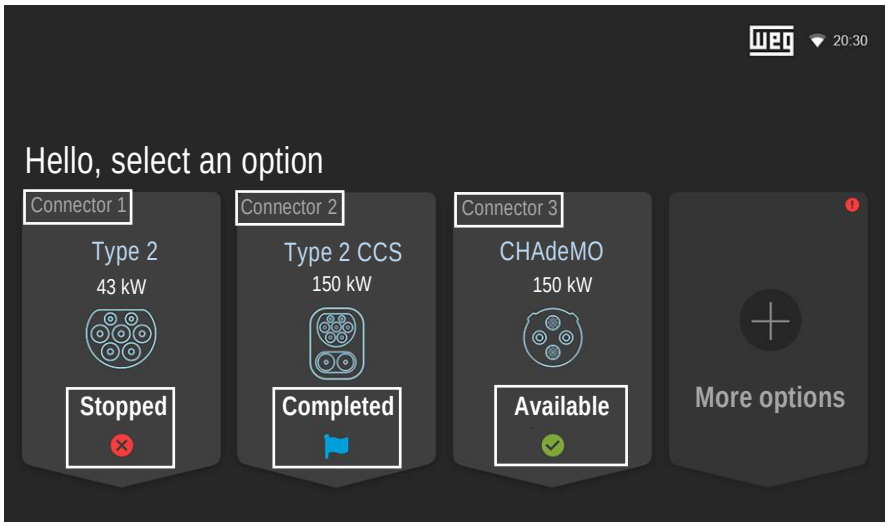


Figure 52: Home screen showing the status of each connector

Table 6: Connector status indication

Status	Description
Available	Connector available, ready to use
Busy	Connector busy, charging in progress using this connector
Completed	Charge completed, remove the connector and free the space for the next user
Stopped	Connector with Fault/Error
Reserved 03:24	This connector has been reserved and can only be used by the user who made the reservation
Unavailable	The connector is unavailable and out of order

7.5 ERRORS

The WEMOB-STATION charging station can report various errors, which may be related to a problem with the charging station or reported during a charging session.

The diagnosis can be performed through the "Errors" screen by accessing the "More Options" window on the main screen, as shown in Figure 47 on page 58. Then, access the "Errors" window, where a screen with the error history is presented, showing date and time, error code, simplified description of the error and status and if the error is active or has already been solved.

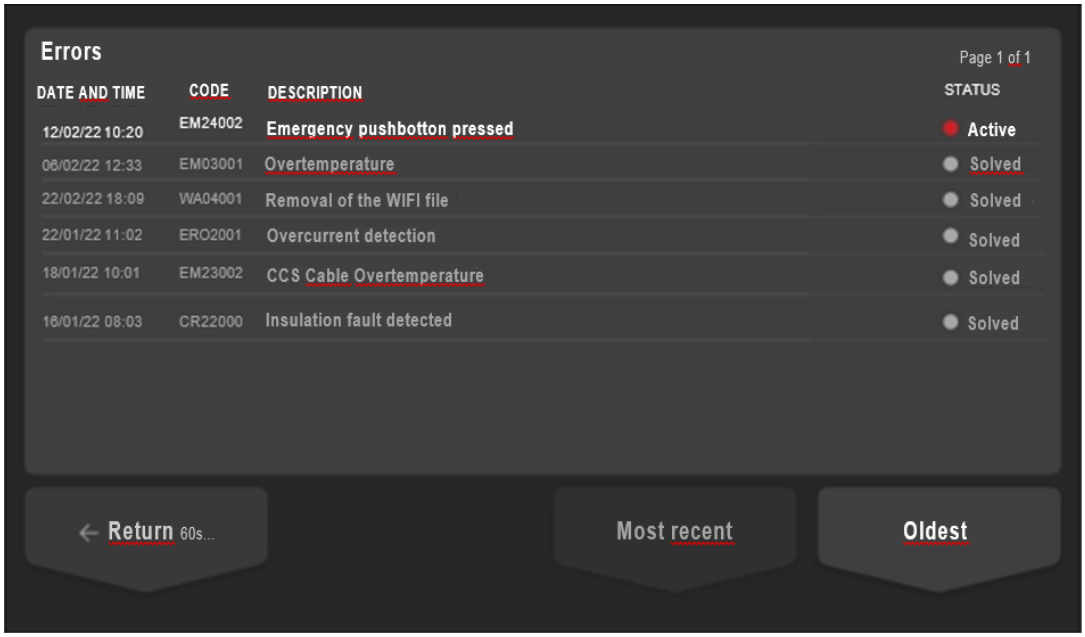


Figure 53: Error details screen

Errors are classified according to the level of action:

- Error;
- Fault;
- Warning.

Table 7: Consequences according to action level

Nível de Atuação	Identificador	Sinal Sonoro	Ação
Error	ER	3 long beeps	An error corresponds to a malfunction of the system or a component. The station needs intervention. Turn off the station, and after clearing the condition that generated the error, turn it on again. If the error persists, do not use the charging station and contact an authorized technical assistance service.
Fault	FA	3 short beeps	Some faults might be recovered automatically, without the need to restart the station. To do that, remove the charging connector from the electric vehicle, the status LED of the faulty connector should return to AVAILABLE. If the fault persists, contact an authorized technical assistance service
Warning	WA	No beep	The warning is an information message. No immediate action required.

8 TECHNICAL DATA

Table 8: Technical data

Input Data	**30 kW station**	**60 kW station**
Rated voltage	380 - 415 VCA ± 10 % 3F+N+PE	
Rated frequency	50/60 Hz ± 5 %	
Maximum input current	52 A	101 A
Power factor	0,98 from 50 to 100 % load	
	0.99 at 100% load	
Output Data	**30 kW station**	**60 kW station**
Output voltage	150 to 920 VDC	
Maximum output power	30 kW	60 kW
Maximum output current	80 A	150 A
Charging cable version	CCS-2 or GB/T	
Mechanical life of the charging plug: no load (insert/remove)	> 10000 times	
Approximate length of the charging cable	4.3 m	
General Characteristics	**30 kW station**	**60 kW station**
Installation method	Mobile (casters)	
Cabinet	Metallic	
Auxiliary outlet for maintenance	6 A	
Approximate weight	≤ 140 kg	≤ 160 kg
Indication	Multicolor status LED	
	Color display 10.1"	
	Beep	
Connectivity	Wi-Fi	
	RFID	
	Cellular (LTE)	
	Cabled Ethernet (RJ45)	
Communication protocol	OCPP 1.6 JSON	
Protections	Short circuit	
	Overcurrent	
	Voltage surge (control) via varistor	
	Excessive internal temperature	
	Hardware faults	
	EV communication fault	
	Insulation fault (IMD)	
Acceptable diameter for the power box input cable	Ø 18 to 24 mm	Ø 22 to 32 mm
Power Plug and Outlet	PIW-63P5H6E53	PIW-125P5H6E53
	TEW-63P5H6E53	TEW-125P5H6E53
Environment Conditions	**30 kW station**	**60 kW station**
Protection rating	IP41 (sheltered use)	
Protection against external impacts	IK08	
Operating temperature	-25 ºC to 40 ºC (no derating)	
	41 °C to 50 °C (with derating)	
Storage temperature	-25 °C to 80 °C	
Air relative humidity	5% to 95% non-condensing	
Maximum altitude	2000 m above sea level	

8.1 WEMOB-STATION DIMENSIONS

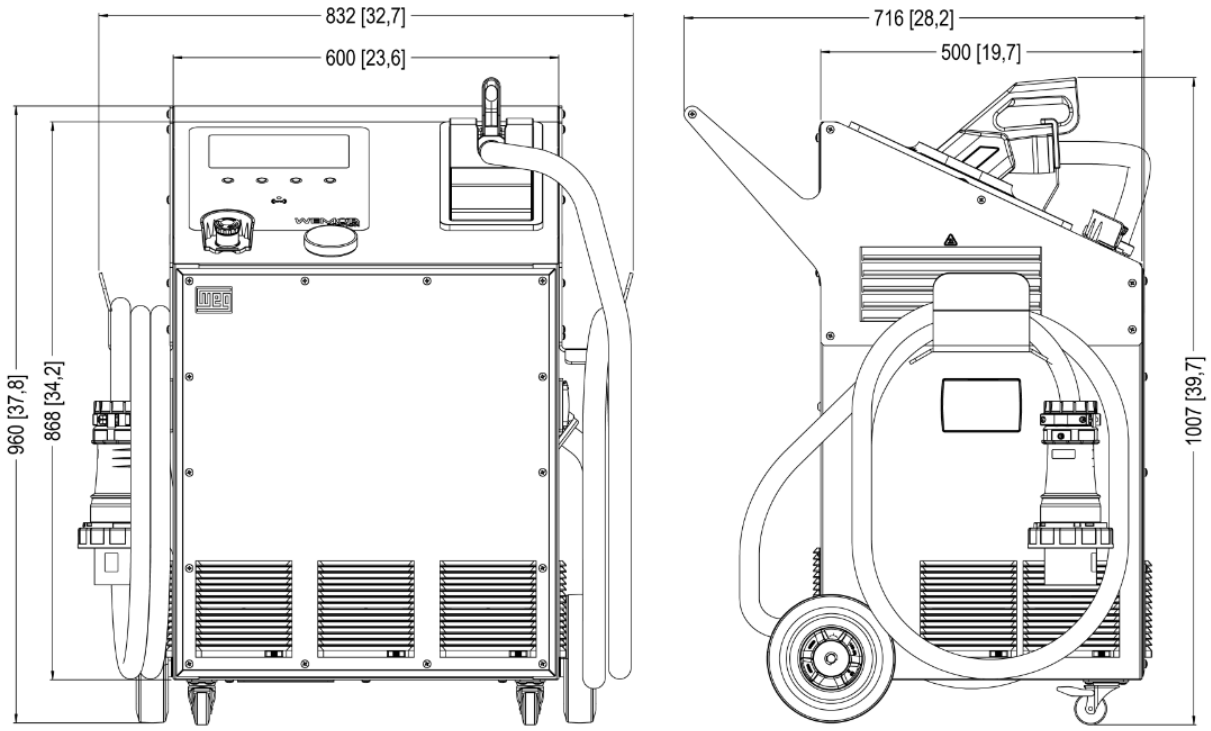


Figure 54: WEMOB-STATION dimensions in mm and inches – mm ["]

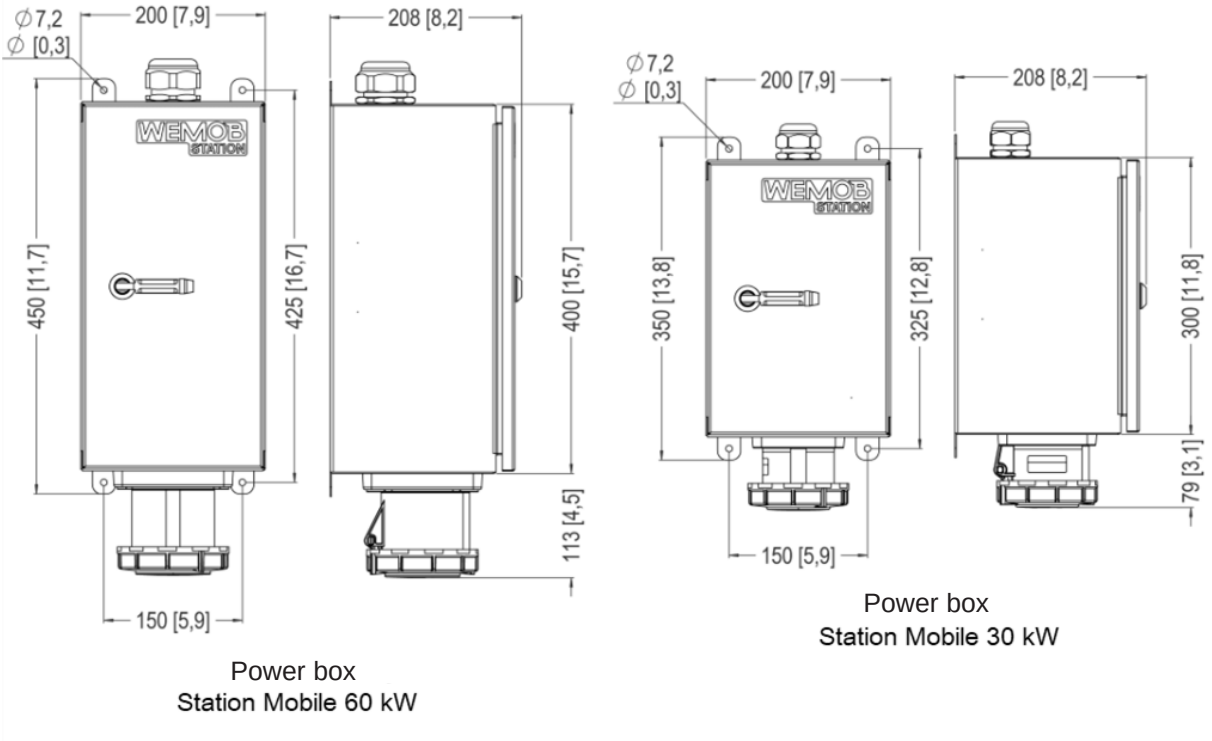


Figure 55: Power box dimensions in mm and inches – mm ["]

9 ANATEL

“This device has no right to protection against harmful interference and cannot cause interference in duly authorized systems.”

"It incorporates product approved by ANATEL under number 17035-20-03402".

“This device has no right to protection against harmful interference and cannot cause interference in duly authorized systems.”

"It incorporates product approved by ANATEL under number 02765-22-07968".

“This device has no right to protection against harmful interference and cannot cause interference in duly authorized systems.”

"It incorporates product approved by ANATEL under number 08590-22-07908".

10 LGPL GENERAL INFORMATION

WEMOB STATION charging stations contain software developed by third parties, including libraries subject to the GNU Lesser General Public License (LGPL).

To have access to these libraries, including their source codes, contact our technical support in writing, via traditional letter or email, using the means indicated below.

Traditional mail:
Assistência Técnica WEG (ASTEC)
Av. Pref. Waldemar Grubba, 3000, CEP 89256-900
Jaraguá do Sul - SC – Brasil

E-mail:
sup-tec-wds@weg.net

Libraries subject to the LGPL are distributed WITHOUT ANY WARRANTY; without even the implied warranty of SALE or FITNESS FOR A PARTICULAR PURPOSE, and they are subject to the rules established in the LGPL license, their use being subject to compliance with copyright.

For more details, read the GNU Lesser General Public License, accessible at: http://licencas.softwarelivre.org/lgpl-3.0.pt-br.html

WEG does not provide technical support for these codes and will keep them available for the period provided for in the LGPL. The files will be provided on a durable medium (CD-ROM, USB stick etc.) at a cost equivalent to the physical medium plus shipment costs.