INSTALLER GUIDE

GREEN'UP CONTROL

CHARGING STATIONS

#LegrandImprovingLives

legrand®

LEGRAND SUPPORTS YOU ON ALL YOUR PROJECTS

LEGAL INFORMATION

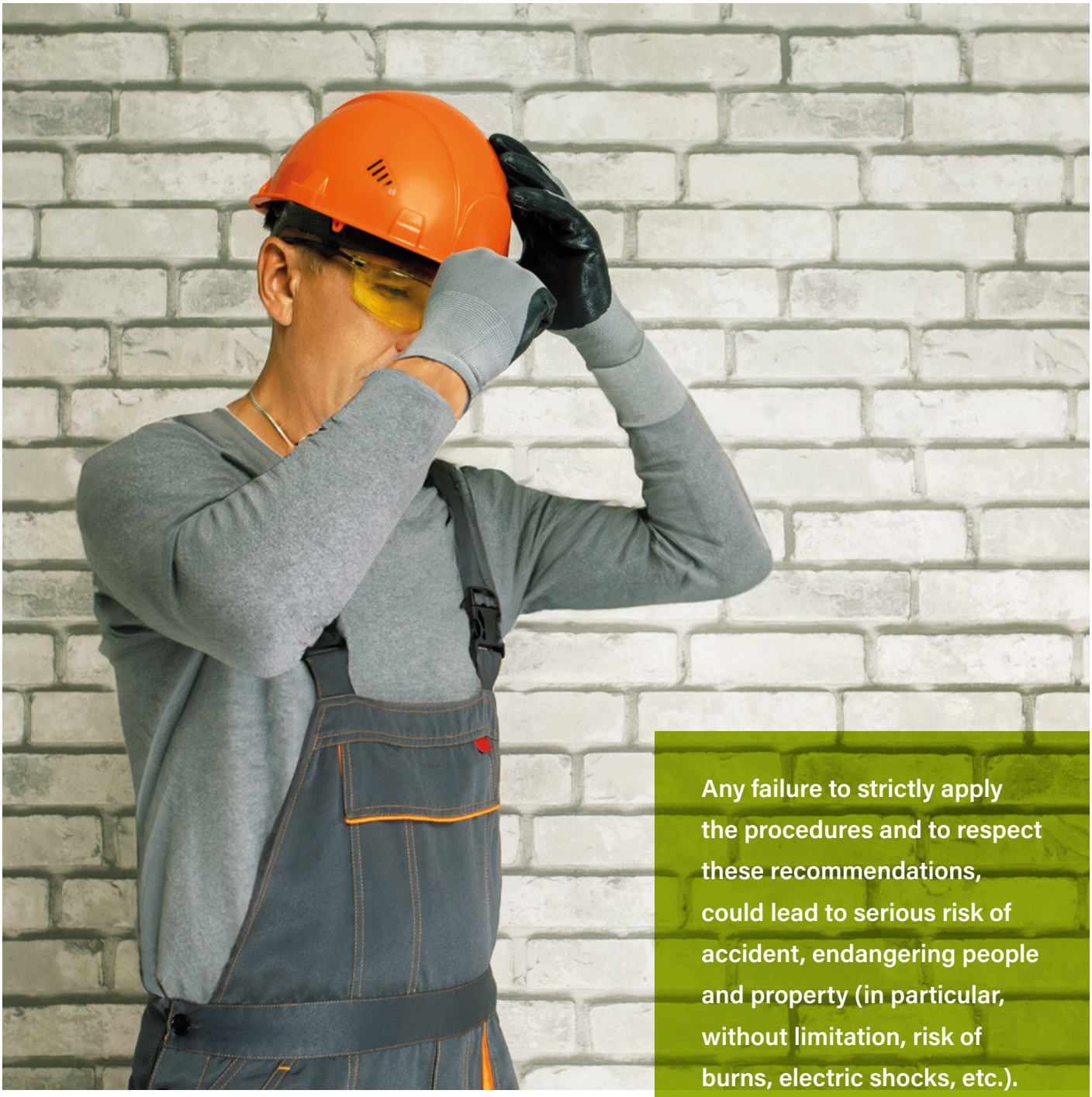
Presentation pictures do not always include Personal Protective Equipment (PPE), but this is a legal and regulatory obligation that must be scrupulously respected.

In accordance with its continuous improvement policy, Legrand reserves the right to change the specifications and illustrations without notice. All illustrations, descriptions and technical information included in this document are provided as indications and cannot be held against Legrand.

Contents

INSTALLER GUIDE

SAFETY INSTRUCTIONS



Any failure to strictly apply the procedures and to respect these recommendations, could lead to serious risk of accident, endangering people and property (in particular, without limitation, risk of burns, electric shocks, etc.).

General information

- Use only the products and accessories recommended by the Legrand Group in the catalogue, instructions, technical data sheets and all other documents provided by Legrand (hereinafter referred to as “the Documentation”) in compliance with the installation rules.

Improper installation or use may result in the risk of arcing in the enclosure, overheating or fire. The enclosures must be used under normal conditions, they must not be subjected to Voltage / Current / Temperature values other than those specified in the Documentation.

- Legrand declines all responsibility for any modification or repair of the equipment making up the enclosure that is not authorized by the Legrand Group, as well as any failure to comply with the rules and recommendations specified by Legrand in the Documentation. In addition, in the cases mentioned above, the warranty granted by Legrand will not be applicable.
- It is necessary to check that the characteristics of the products are appropriate for their environment and use during maintenance operations, and to refer to the Documentation.
- If you have any questions or require clarification, please contact Legrand Group.

Protection/security

- The installation, use and maintenance of the enclosures and their components must be carried out by qualified, trained and authorized personnel, in accordance with the regulations in force in each country.
- People working on the installation must have the appropriate electrical authorizations for the work to be carried out.
- Wear the PPE (Personal Protective Equipment) necessary to work on live products.

- Respect the safety rules related to electrical work.
- Improper electrical and mechanical use of equipment can be dangerous and may result in personal injury or damage to property.

Maintenance

- Depending on the maintenance operations to be carried out, partial or total power cuts of the enclosure concerned should be planned before any work.
- When performing operations that involve access to the inside of the enclosure, be aware of the risk of burns before touching any.
- Before turning the power back on, make sure that there are no foreign bodies and that all physical protections have been put back in place (e.g.: screens, covers, faceplates).

Risk of electric shock, burns and explosion.

The rules and recommendations in this document are based on our knowledge of the typical conditions of use of our products in the fields of application usually encountered. However, it is always the customer’s responsibility to verify and validate that Legrand products are suitable for its installation and use.

The customer must ensure proper installation, maintenance and operation of the equipment to avoid any risk of injury to personnel or damage to property in the event of product failure, especially for applications that require a very high level of safety (e.g., those in which the failure of a component may endanger human life or health).

The rules for storage, handling, installation and maintenance and the appropriate precautions and warnings must be strictly observed and applied.

GREEN'UP CONTROL

CHARGING STATIONS FOR ELECTRIC VEHICLES

Reliable and scalable charging stations for electric vehicles, designed for commercial uses (small and large retail spaces) as well as for multi-unit residential buildings. Engineered for installation in parking areas (indoor or outdoor), their robust metal structure allows either floor mounting with a pedestal or wall mounting with a dedicated front panel.

Installation and commissioning are simplified, enabling these charging stations to meet deployment projects for charging points in the commercial sector.
They integrate features such as access control, energy management, and remote connectivity, making these charging stations an essential piece of equipment for your buildings.

PRE-ASSEMBLED CHARGING STATIONS

Ready-to-install with front panel mounted IP55 - IK10

1 or 2 charging points with T2s socket for Mode 3 load

Single-phase or three-phase Built-in protection and MID meter(s)

Ready-to-install with pedestal and front panel mounted IP55 - IK10

1 or 2 charging points with T2s socket for Mode 3 load

Single-phase or three-phase Built-in protection and MID meter(s)

Ergonomic user interface with display:
- Charging status
- RFID badge reader

Connectivity 4G / Ethernet / Wi-Fi

A 6 mA DC leakage current detection device integrated into all charging stations.

Power setting	State on delivery	Type of load		Front panel for wall-mounting	Pedestal and front panel for floor fixing
	Type of protection	1 x Mode 3	2 x Mode 3		
Single-phase 7.4 kW - 32 A	With built-in protection	0 580 81	0 580 91	included	
		0 580 83	0 580 93		included
Three-phase 22 kW - 32 A	With built-in protection	0 580 82	0 580 92	included	
		0 580 84	0 580 94		included

TO BE EQUIPPED CHARGING STATIONS (SINGLE-PHASE OR THREE-PHASE, DEPENDING ON THE WIRING CONFIGURATION)

To be equipped with wall-mounting kit or floor fixing kit (to be ordered separately)
IP 55 - IK 10

Ergonomic user interface with display:
- Charging status
- RFID badge reader

Built-in MID meter

Single-phase or three-phase, configurable depending on the wiring performed

Connectivity 4G / Ethernet / Wi-Fi

Depending on the version,
1 or 2 T2S sockets for Mode 3 charging,
and 1 reinforced Type E or Type F socket for Mode 2 charging

Mode 3 only

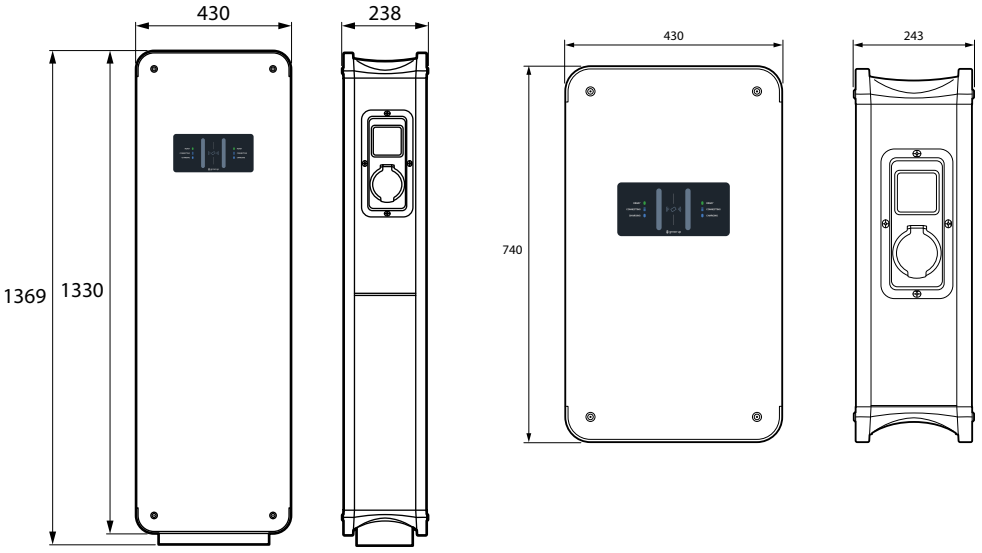
Power setting	State on delivery Type of protection	Type of load 1 x Mode 3	 2 x Mode 3		Pedestal and front panel for floor fixing		Front panel for wall-mounting
Single-phase 7.4 kW - 32 A or Three-phase 22 kW - 32 A	To be fitted with protection appropriate to the wiring	0 580 18	0 580 19	+	0 590 54	**or**	0 590 53

Mode 2 + Mode 3

The dual charging stations are equipped with 2 Mode 3 sockets and 1 Mode 2 socket only.

Power setting	State on delivery Type of protection	Type of load Mode 2 + Mode 3	 1 x Mode 2 + 2 x Mode 3		Pedestal and front panel for floor fixing		Front panel for wall-mounting
Single-phase 7.4 kW - 32 A or Three-phase 22 kW - 32 A	To be fitted with protection appropriate to the wiring	0 580 28(1) 0 580 38(2)	0 580 29(1) 0 580 39(2)	+	0 590 54	**or**	0 590 53

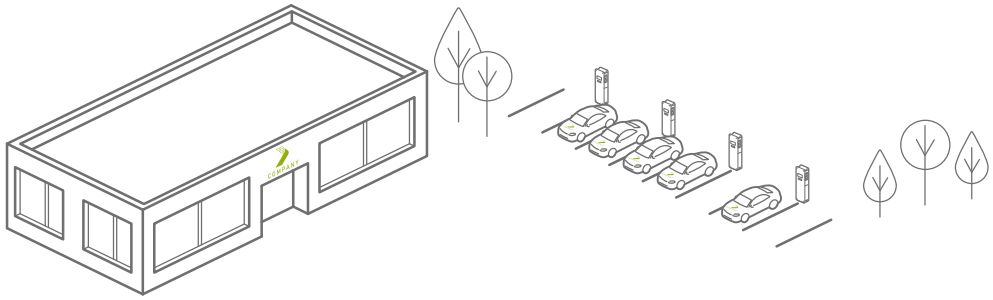
(1) : Mode 2 Type E socket, French standard - (2) : Mode 2 Type F socket, German standard



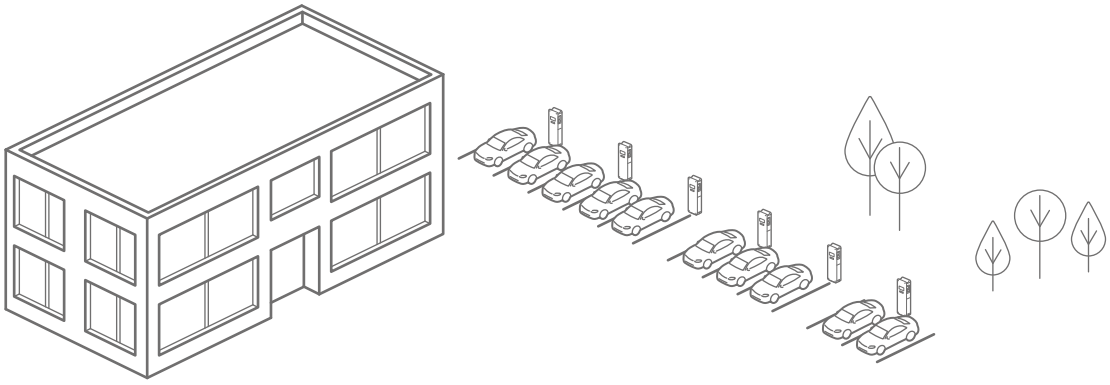
GREEN'UP CONTROL
CHARGING STATIONS FOR ELECTRIC VEHICLES

FUNCTIONS AND INSTALLATIONS WITH OR WITHOUT DYNAMIC LOAD MANAGEMENT

STANDARD OPERATION
For free charging, without supervision



OPERATION CONNECTED TO AN IP NETWORK (LOCAL MANAGEMENT)
The owner manages access, maintenance, and operation



KEY POINTS

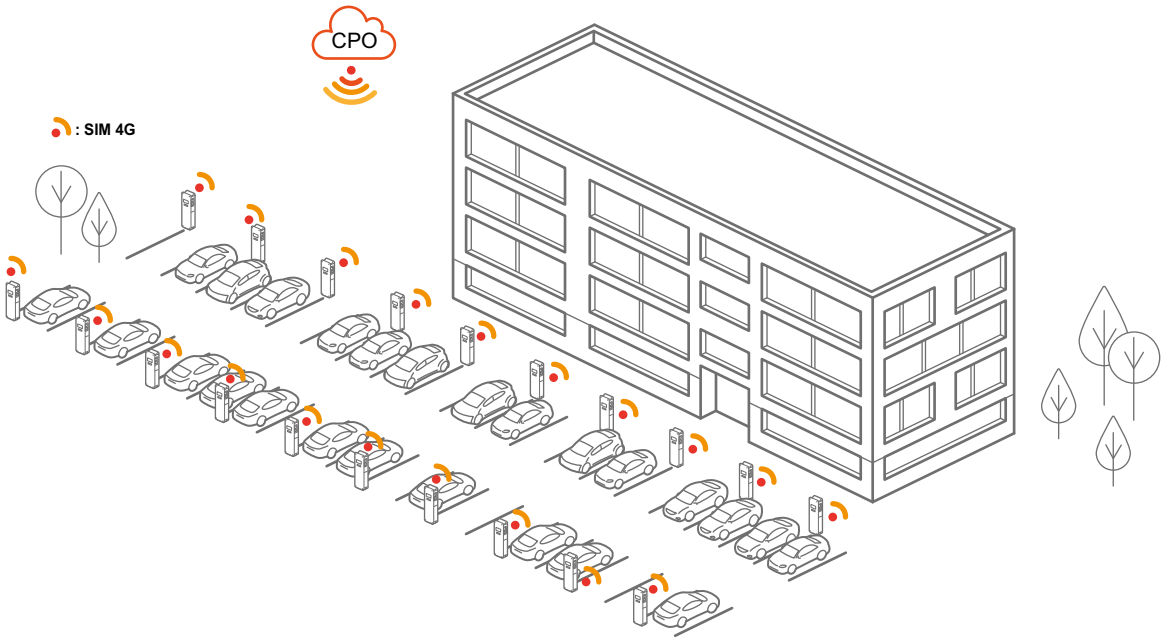
Here are some guidelines to follow for an installation that complies with our manufacturer's recommendations:
- Ethernet cable maximum length: 100 m with Ethernet cable category 6 minimum recommended
or
- Wi-Fi for proper operation of the charging station: Wi-Fi type IEEE 802.11b/g/n
Frequency band 2.4 GHz. Range 100 m in open field.
- Sufficient 4G network coverage when using a SIM card for connection to charging operators.
Before installation, check that the Wi-Fi and/or 4G signal is sufficiently available and strong at the installation point to ensure a stable connection.

OPERATION WITH A CHARGE POINT OPERATOR (CPO)

The configuration is performed by the installer (p. 25) and the charge point operator manages the installation thereafter."

Example of site layout for a charging infrastructure with a limited number of charging points

Example of site layout for a charging infrastructure with a large number of charging points



OPERATION WITH AN EXTERNAL MANAGEMENT SYSTEM

For a large number of charging points, a functional analysis must be carried out to determine the most appropriate architecture and to assess whether an external server is required, depending on operational needs (Fleet Supervision, Dynamic Load Management, etc.)

Legrand offers full support and dedicated services for performing the functional analysis and commissioning your project.

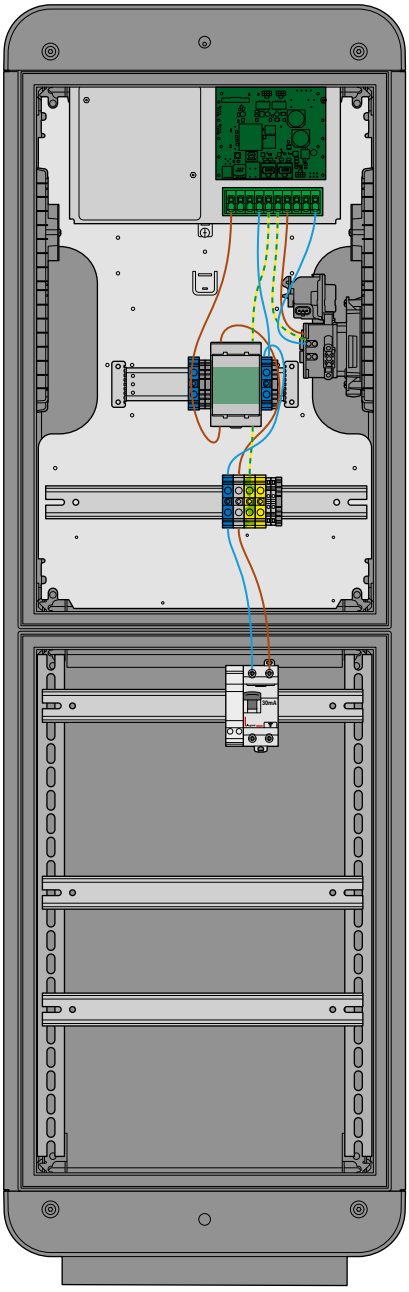
Charging stations details

The charging stations are delivered with one integrated MID meter per charging point, an RFID reader (enable/disable), GSM connectivity for a charge-operator SIM card (not included), and built-in Ethernet and Wi-Fi connections.
Delivered with 2 non-registered RFID badges.

CHARGING STATIONS WITH BUILT-IN PROTECTION (FOR FLOOR FIXING)

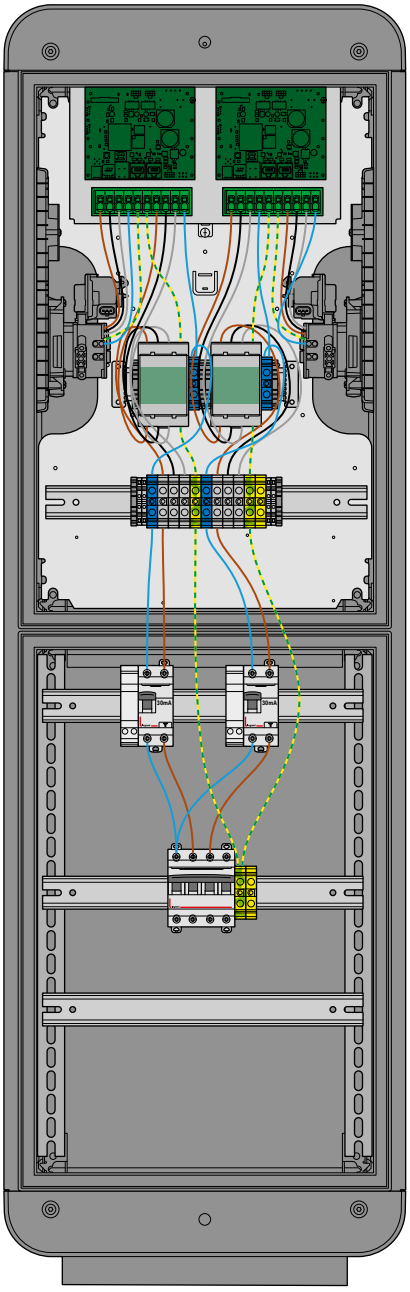
The versions equipped with a pedestal for floor mounting include a chassis fitted with three DIN rails and a cable-entry plate at the back of the enclosure to ensure it is waterproof

7.4 kW charging station Cat.No 0 580 83
1 x Mode 3



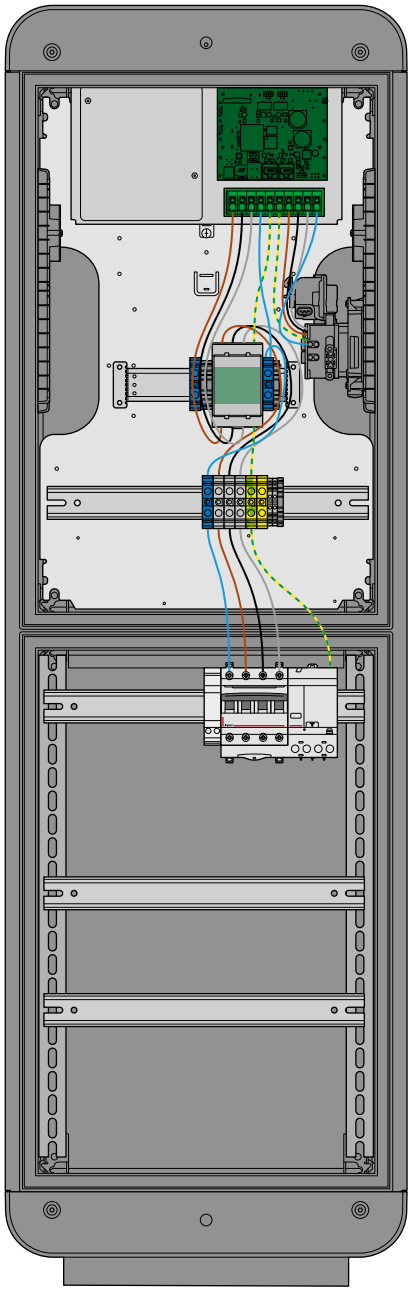
Equipped with:
- 1 Ph+N 40A Type F 30mA RCBO
- 1 shunt trip coil

7.4 kW charging station Cat.No 0 580 93
2 x Mode 3



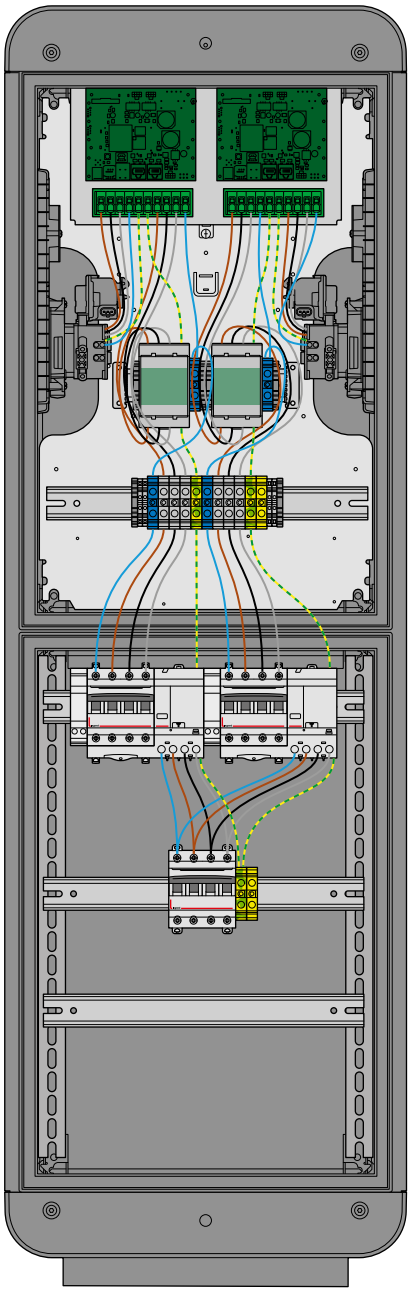
Equipped with:
- 2 Ph+N 40A Type F 30mA RCBO
- 2 shunt trip coils
- 1 isolating switch 63 A

22 kW charging station Cat.No 0 580 84
1 x Mode 3



Equipped with:
- 1 set consisting of a 4P 40A MCB with Type F 30 mA add-on module
- 1 shunt trip coil

22 kW charging station Cat.No 0 580 94
2 x Mode 3



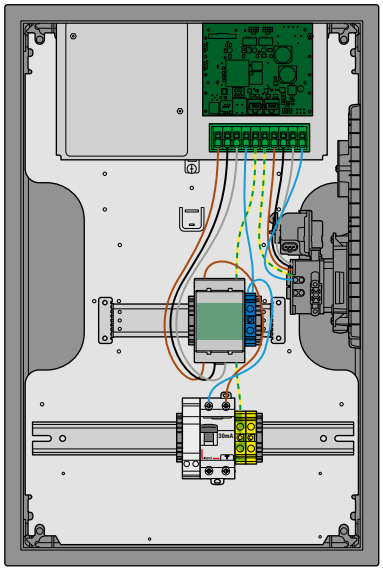
Equipped with:
- 2 sets consisting of a 4P 40A MCB with Type F 30 mA add-on module
- 2 shunt trip coils
- 1 isolating switch 100A

Charging stations details

The charging stations are delivered with one integrated MID meter per charging point, an RFID reader (enable/disable), GSM connectivity for a charge-operator SIM card (not included), and built-in Ethernet and Wi-Fi connections.
Delivered with 2 non-registered RFID badges.

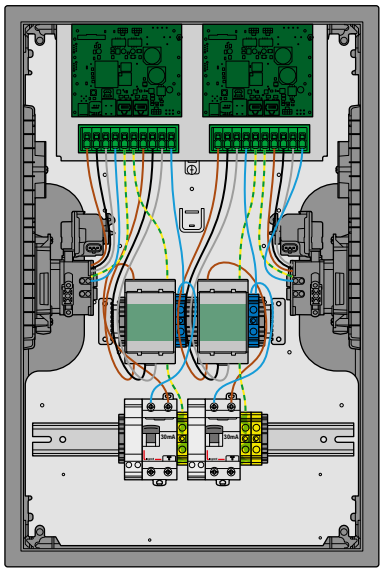
CHARGING STATIONS WITH BUILT-IN PROTECTION (FOR WALL MOUNTING)

7.4 kW charging station Cat.No 0 580 81
1 x Mode 3



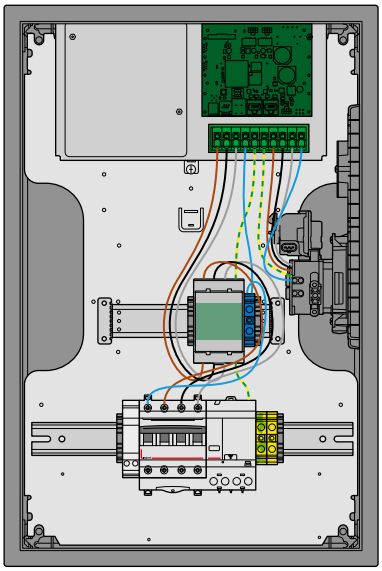
Equipped with:
- 1 Ph+N 40A Type F 30mA RCBO
- 1 shunt trip coil

7.4 kW charging station Cat.No 0 580 91
2 x Mode 3



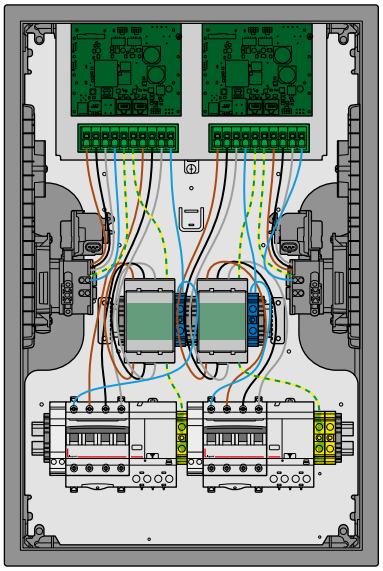
Equipped with:
- 2 Ph+N 40A Type F 30mA RCBO
- 2 shunt trip coils

22 kW charging station Cat.No 0 580 82
1 x Mode 3



Equipped with:
- 1 set consisting of a 4P 40A MCB with Type F 30 mA add-on module
- 1 shunt trip coil

22 kW charging station Cat.No Cat.No 0 580 92
2 x Mode 3



Equipped with:
- 2 sets consisting of a 4P 40A MCB with Type F 30 mA add-on module
- 2 shunt trip coils

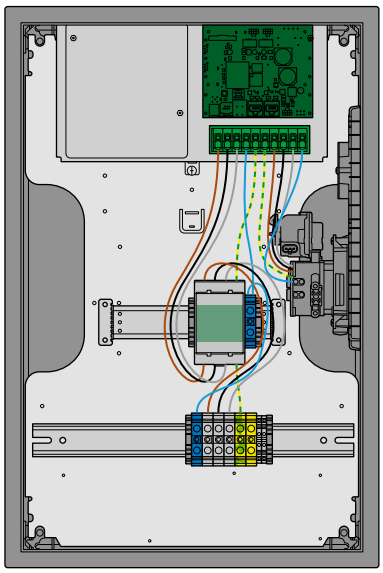
Charging stations details

The charging stations are delivered with one integrated MID meter per charging point, an RFID reader (enable/disable), GSM connectivity for a charge-operator SIM card (not included), and built-in Ethernet and Wi-Fi connections.
Delivered with 2 non-registered RFID badges.

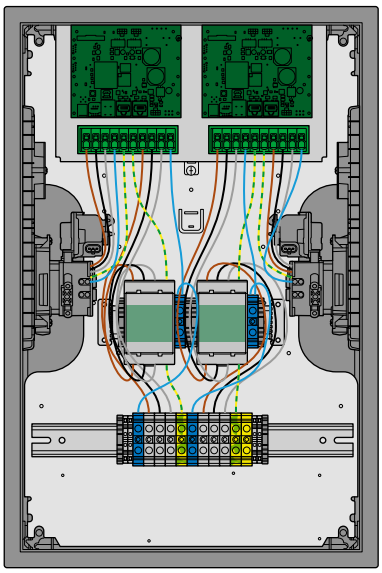
CHARGING STATIONS TO BE EQUIPPED, TO BE FITTED WITH PROTECTION APPROPRIATE TO THE WIRING

The charging stations can be wired in single-phase or three-phase, allowing charging from 7 kW to 22 kW (see settings)

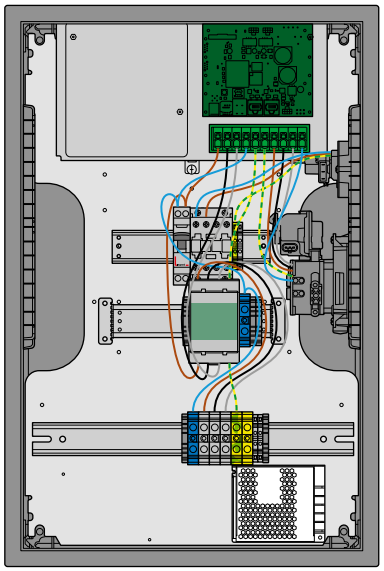
Cat.No 0 580 18 - 1 x Mode 3



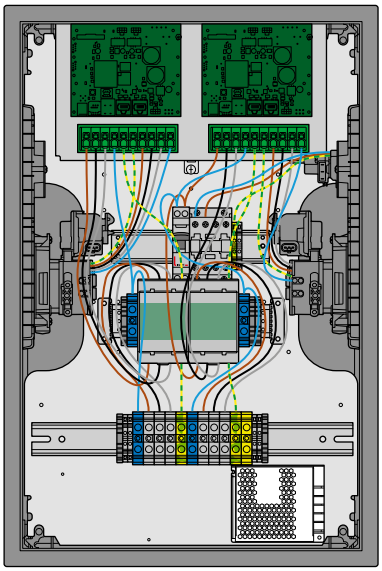
Cat.No 0 580 19 - 2 x Mode 3



Cat.No 0 580 28/38 - 1 x Mode 2 + 1 x Mode 3



Cat.No 0 580 29/39 - 1 x Mode 2 + 2 x Mode 3



CHARGING STATION INSTALLATION

The Green'up Control electric vehicle charging station can be installed on a wall or mounted on a pedestal for floor installation

► **All assembly steps are available in the charging station instructions in the e-catalog.**

PRE-ASSEMBLED CHARGING STATION

The charging station is delivered pre-assembled with a pedestal for floor mounting

The charging station is delivered pre-assembled with a front panel for wall mounting

CHARGING STATION TO BE EQUIPPED

+

The charging station to be equipped must be combined with the Cat.No 0 590 53 kit for wall mounting

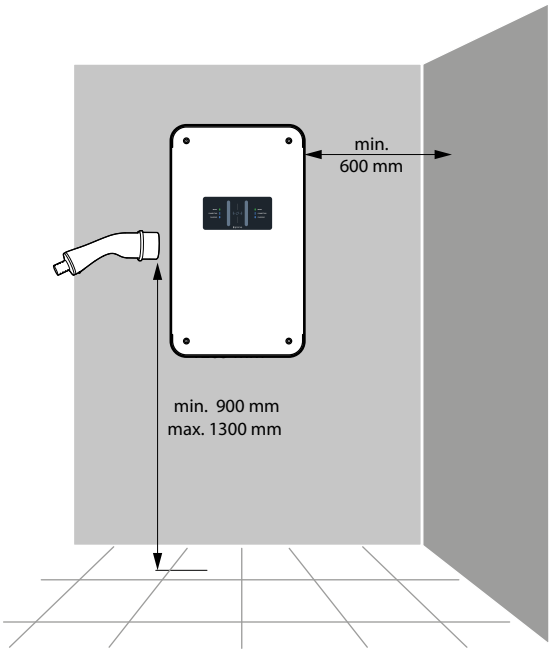
OR

+

The charging station to be equipped must be combined with the Cat.No 0 590 54 for floor fixing

Fixing

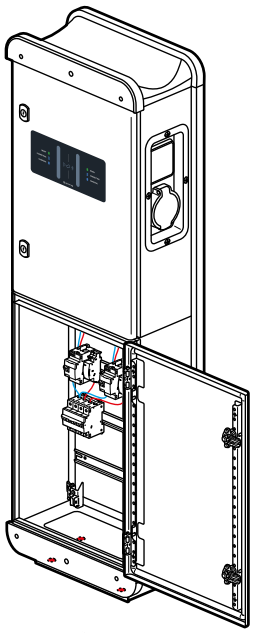
WALL MOUNTING

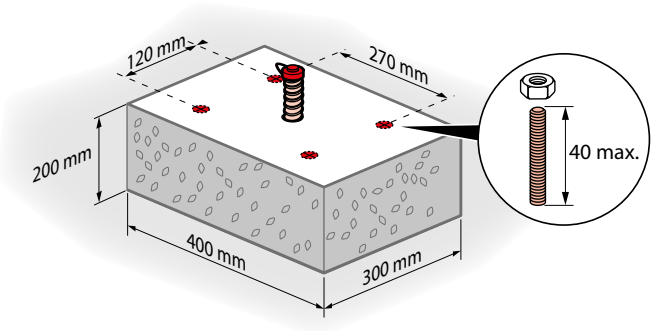


Installation
To comply with accessibility conditions for people with reduced mobility, the charging station must be wall-mounted to ensure:
- a height of 90 to 130 cm between the ground and the socket/plug
- a distance greater than 60 cm between the charging station and the adjacent wall

FLOOR FIXING WITH PEDESTAL

Requires ground preparation with 4 fixed anchoring points as described below:





To ensure waterproofing, the supplied back plate must be positioned at the bottom of the charging station and the conduits must be sealed.

Power connection diagrams

The Green'up Control electric vehicle charging station must be protected at the electrical panel in accordance with IEC 60364-7-722 and its transposition according to the local installation standards in the country.

REMINDER OF INSTALLATION STANDARD

The main electrical standard to be followed in residential buildings and for the installation of an electric vehicle charging station is IEC 60364-7-722 (2nd edition - 2018).

Reminder of the necessary protections described in IEC 60364-7-722, to be adapted according to the applicable local regulations.

- Each connection point must be powered by a dedicated circuit,
- Each connection point must be protected by an overcurrent protection device (e.g., circuit breaker),,
- Each connection point must be individually protected by a 30 mA residual current device (RCD) of Type A in Mode 1 or 2, Type B, or at least Type A or F with a 6mA DC fault current detection device (RDC-DD(1)) in Mode 3 (single-phase or three-phase),

Note: Since 6 mA DC protection is included in all Green'up Control charging stations, only a Type A or Type F residual current device (RCD) is required.

- sufficient cable cross-section (recommended cable cross-sections for the charging station rating setting: at 16 A, use 2.5 mm^2 cables - at 20 A, use 4 mm^2 cables - at 25 A, use 6 mm^2 cables - at 32 A, use 10 mm^2 cables),

Caution : The values indicated are recommendations, refer to the calculation note.
- a properly installed cable routing,
- a grounding value complying with the local installation regulations in force.

(1) Residual direct current detecting device

⚠ **Tightening check of the connections:** Before commissioning, it is recommended to verify the tightening of all pre-wired connections. Vibrations during transport may alter the factory-applied tightening torque.

Power connection diagrams (continued)

Connecting with aluminium cables requires a mandatory Al/Cu adapter to ensure reliable tightening and prevent overheating risks.

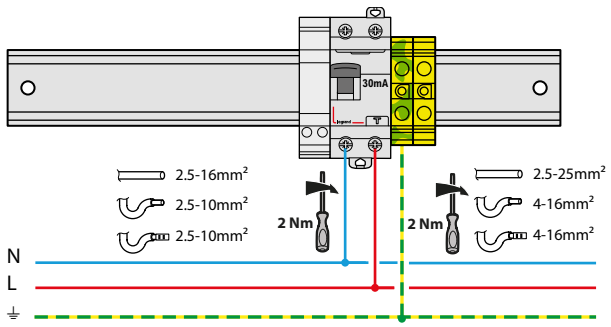
7.4 KW CHARGING STATIONS WITH BUILT-IN PROTECTION (FOR FLOOR FIXING)

The protections are suitable for a maximum power of 32A.
Caution : The values indicated are recommendations, refer to the calculation note.

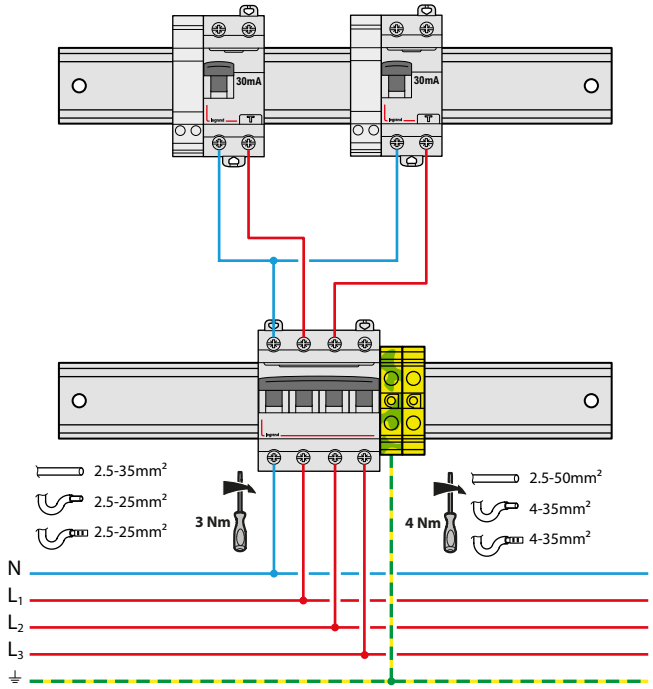
It's recommended to clamp the cables once the wiring is finalized.

It is recommended to protect the dedicated line to the charging station with a circuit breaker in the electrical panel (not provided).

Cat.No 0 580 83 - 1 x Mode 3
The charging station is delivered with pre-wired protection.
The power supply must be connected to the downstream terminals of the RCBO and to the earth terminal block.



Cat.No 0 580 93 - 2 x Mode 3
The charging station is delivered with pre-wired protection.
The power supply must be connected to the downstream terminals of the isolating switch using a single cable (copper only) for both charging points, and to the earth terminal block.



To ensure proper phase balancing, it is necessary to declare the power supply phase sequence in the Web interface for each side (p. 33).

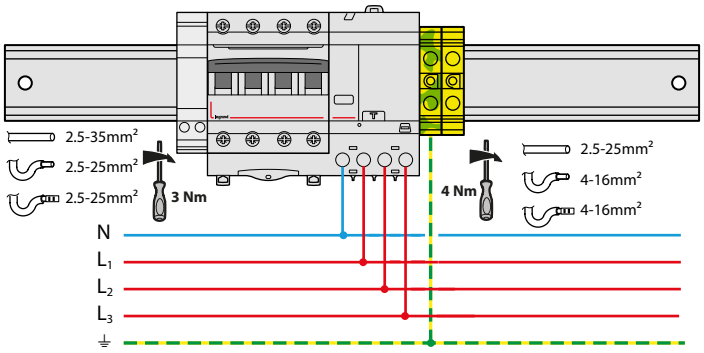
22 KW CHARGING STATIONS WITH BUILT-IN PROTECTION (FOR FLOOR FIXING)

The protections are suitable for a maximum power of 32A.
Caution : The values indicated are recommendations, refer to the calculation note.

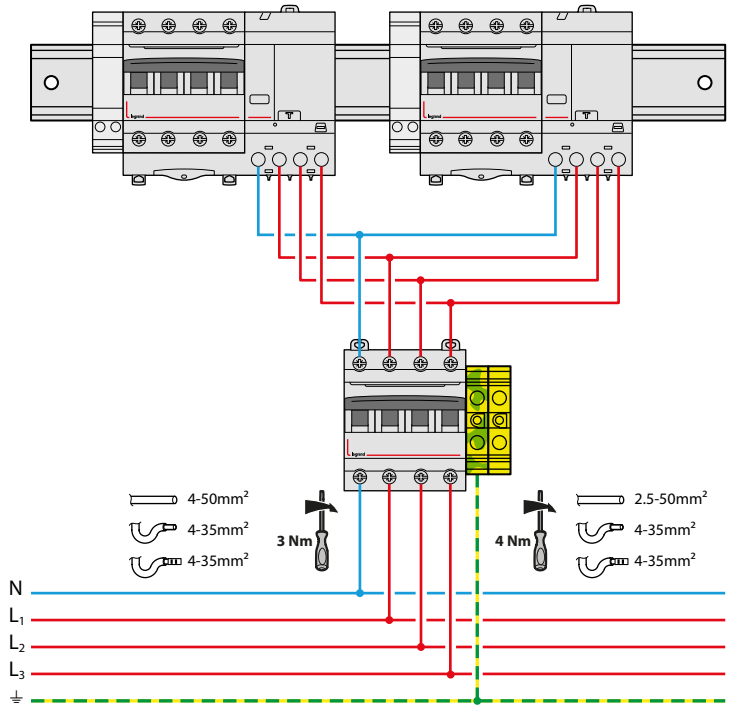
It's recommended to clamp the cables once the wiring is finalized.

It is recommended to protect the dedicated line to the charging station with a circuit breaker in the electrical panel (not provided).

Cat.No 0 580 84 - 1 x Mode 3
The charging station is delivered with pre-wired protection.
The power supply must be connected to the downstream terminals of the add-on module and to the earth terminal block.



Cat.No 0 580 94 - 2 x Mode 3
The charging station is delivered with pre-wired protection.
The power supply must be connected to the downstream terminals of the isolating switch using a single cable (copper only) for both charging points, and to the earth terminal block.



To ensure proper phase balancing, it is necessary to declare the power supply phase sequence in the Web interface for each side (p. 33).

Power connection diagrams (continued)

Connecting with aluminium cables requires a mandatory Al/Cu adapter to ensure reliable tightening and prevent overheating risks.

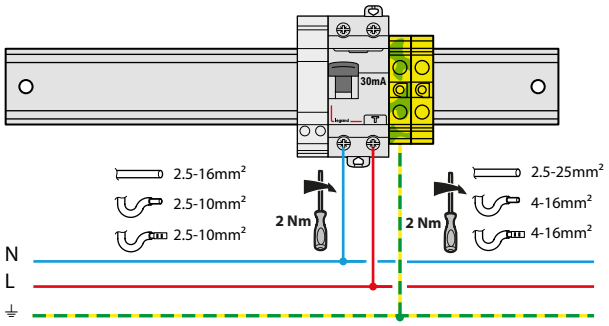
7.4 KW CHARGING STATIONS WITH BUILT-IN PROTECTION (FOR WALL MOUNTING)

The protections are suitable for a maximum power of 32A.
Caution : The values indicated are recommendations, refer to the calculation note.

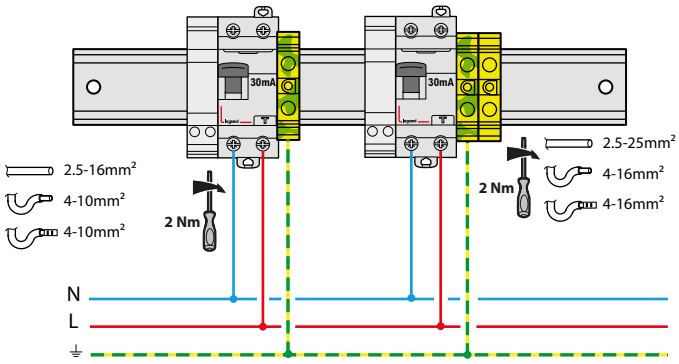
It's recommended to clamp the cables once the wiring is finalized.

It is recommended to protect the dedicated line to the charging station with a circuit breaker in the electrical panel (not provided).

Cat.No 0 580 81 - 1 x Mode 3
The charging station is delivered with pre-wired protection.
The power supply must be connected to the downstream terminals of the RCBO and to the earth terminal block.



Cat.No 0 580 91 - 2 x Mode 3
The charging station is delivered with pre-wired protection.
The power supply must be connected to the downstream terminals of the RCBOs and to the earth terminal block.



To ensure proper phase balancing, it is necessary to declare the power supply phase sequence in the Web interface for each side (p. 33).

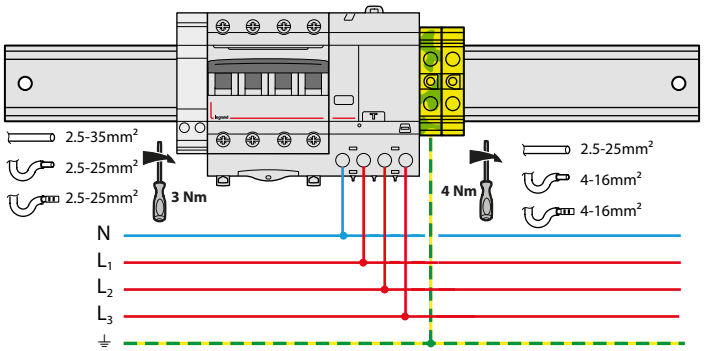
22 KW CHARGING STATIONS WITH BUILT-IN PROTECTION (FOR WALL MOUNTING)

The protections are suitable for a maximum power of 32A.
Caution : The values indicated are recommendations, refer to the calculation note.

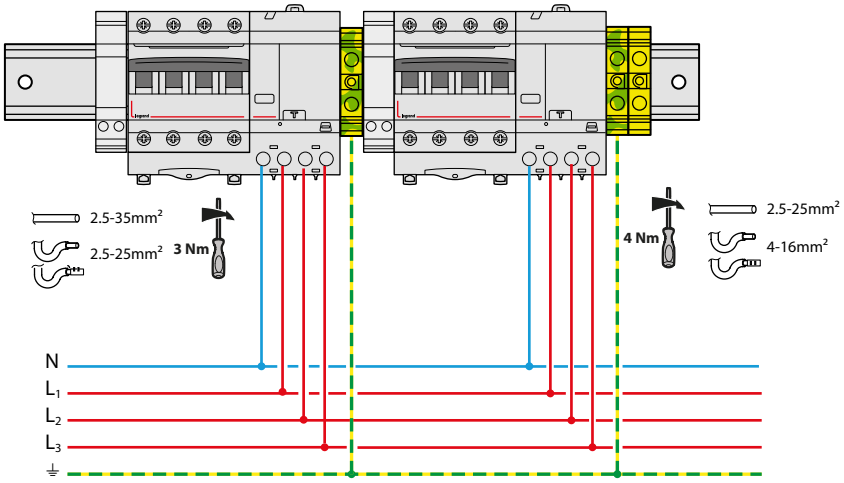
It's recommended to clamp the cables once the wiring is finalized.

It is recommended to protect the dedicated line to the charging station with a circuit breaker in the electrical panel (not provided).

Cat.No 0 580 82 - 1 x Mode 3
The charging station is delivered with pre-wired protection.
The power supply must be connected to the downstream terminals of the add-on module and to the earth terminal block.



Cat.No 0 580 92 - 2 x Mode 3
The charging station is delivered with pre-wired protection.
The power supply must be connected to the downstream terminals of the add-on modules and to the earth terminal block.



To ensure proper phase balancing, it is necessary to declare the power supply phase sequence in the Web interface for each side (p. 33).

Power connection diagrams (continued)

CHARGING STATIONS WITHOUT PROTECTION

The charging stations are delivered without protection devices. The wiring is made directly on the internal connection terminals of the charging station using a copper cable. The charging station can be connected in:
- single-phase for a maximum power of 7.4 kW
- three-phase for a maximum power of 22 kW

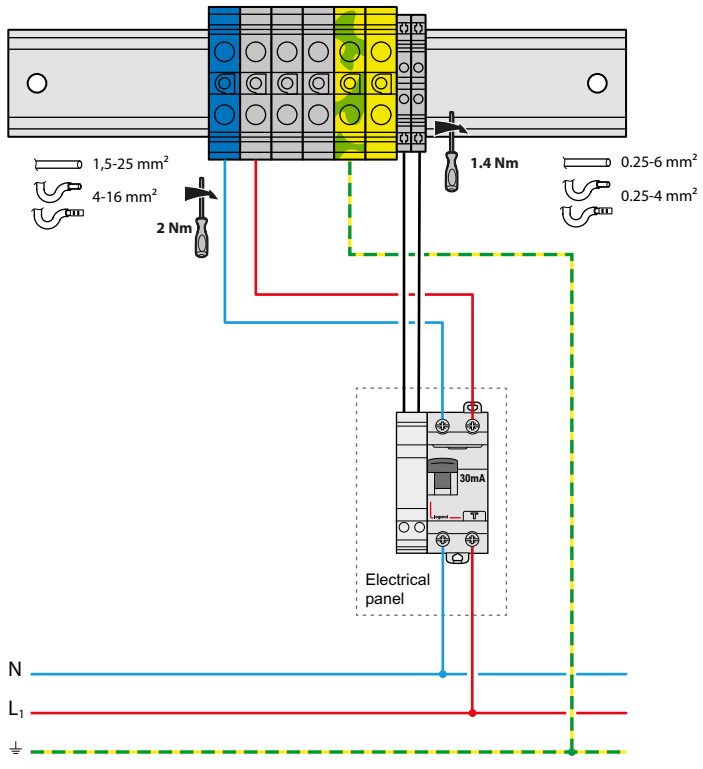
It's recommended to clamp the cables once the wiring is finalized.

Reminder of the standard:
Green'up Control charging stations have an integrated 6mA DC protection, so they must be paired with a Type A or Type F RCBO to comply with the IEC 61851-1 and IEC 60364-7-722 standards

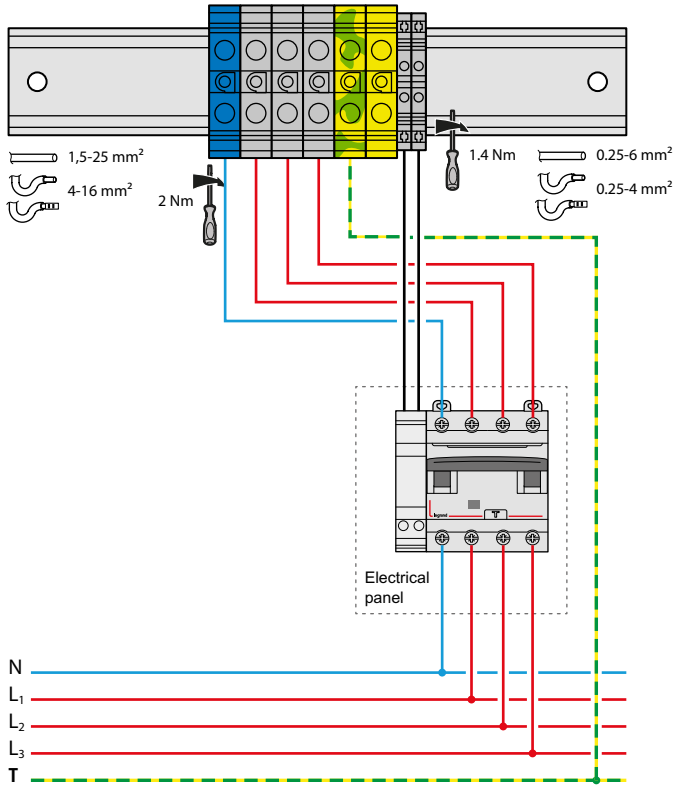
The use of the HX³ supply busbar must be avoided for upstream protection wiring.

Cat.Nos 0 580 18/28/38

Single-phase wiring



Three-phase wiring



Current (A)	Power (kW)	Power line section (mm²)	Shunt trip	RCBO(1)
16	3.7	2.5	4 062 76	4 110 95
20	4.6	4		4 110 96
25	5.8	6		4 110 97
32	7.4	10		4 110 98

Current (A)	Power (kW)	Power line section (mm²)	Shunt trip	RCBO(1)
16	11	2.5	4 062 76	4 112 45
20	15	4		4 112 46
25	18	6		4 112 47
32	22	10		4 079 32 + 4 105 34

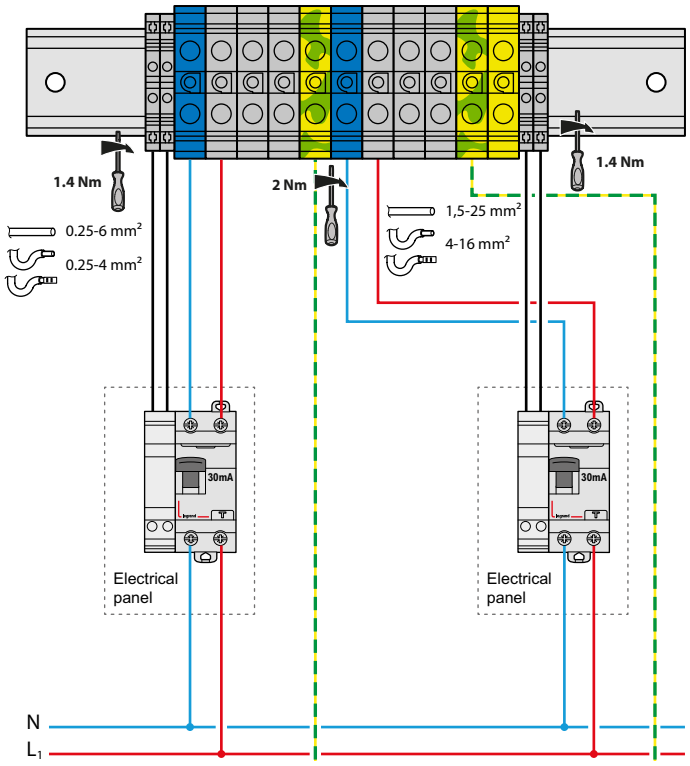
1: The Cat.Nos indicated correspond to protection devices with the Neutral on the right; for the French market, use the Cat.Nos specified in the instruction sheet. The protection can be provided by an RCCB and a circuit breaker, in compliance with the calculation notes

To ensure proper phase balancing, it is necessary to declare the power supply phase sequence in the Web interface for each side (p. 33).

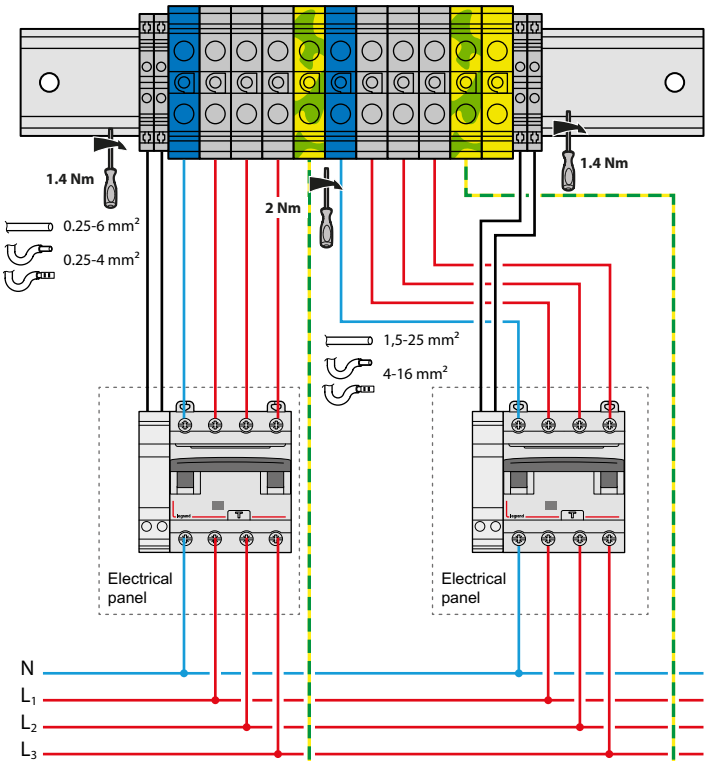
Connecting with aluminium cables requires a mandatory Al/Cu adapter to ensure reliable tightening and prevent overheating risks.

Cat.Nos 0 580 19/29/39

Single-phase wiring



Three-phase wiring



Current (A)	Power (kW)	Power line section (mm²)	Shunt trip x 2	RCBO(1) x 2
16	3.7	2.5	4 062 76	4 110 95
20	4.6	4		4 110 96
25	5.8	6		4 110 97
32	7.4	10		4 110 98

Current (A)	Power (kW)	Power line section (mm²)	Shunt trip x 2	RCBO(1) x 2
16	11	2.5	4 062 76	4 112 45
20	15	4		4 112 46
25	18	6		4 112 47
32	22	10		4 079 32 + 4 105 34

1: The Cat.Nos indicated correspond to protection devices with the Neutral on the right; for the French market, use the Cat.Nos specified in the instruction sheet. The protection can be provided by an RCCB and a circuit breaker, in compliance with the calculation notes

To ensure proper phase balancing, it is necessary to declare the power supply phase sequence in the Web interface for each side (p. 33).

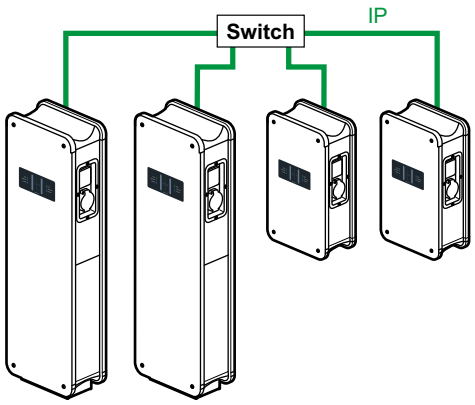
Communication connection

Remote supervision of Green'up Control charging stations is possible through an Ethernet connection, which can be established via a LAN, Wi-Fi, or 4G network.
Once connected, a PC must be used to configure and complete the network settings for each charging station (see page 25).

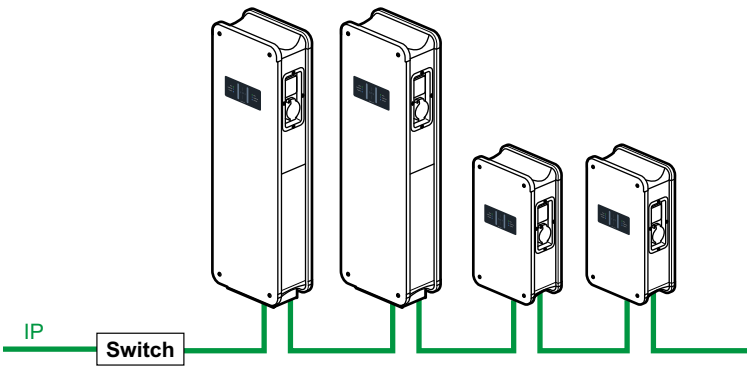
PRINCIPLE DIAGRAMS: LAN CONNECTION VIA RJ45 TO A SWITCH

Two types of connections are possible

Star-configured cabling

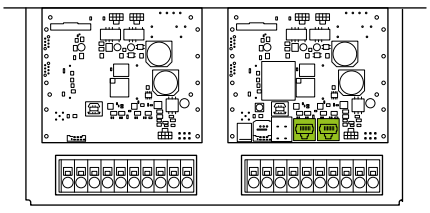


Daisy-chain cabling (serial configuration)



⚠ An Ethernet loop must never be closed in daisy-chain wiring.

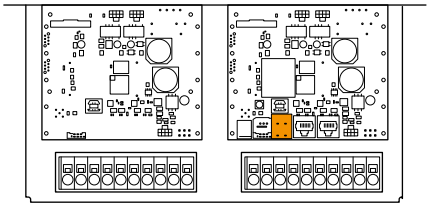
The RJ45 wiring is carried out on the right-hand electronic board
The wiring can be done on any of the RJ45 ports



PRINCIPLE DIAGRAM: WAN CONNECTION TO AN INTERNET ROUTER

PRINCIPLE DIAGRAM: CONNECTION USING A SIM CARD FOR A CHARGE POINT OPERATOR (CPO)

The micro-SIM card must be inserted with the contacts facing the electronic board, into the holder located next to the RJ45 ports



Communication connection (continued)

DYNAMIC LOAD MANAGEMENT (DLM) WIRING

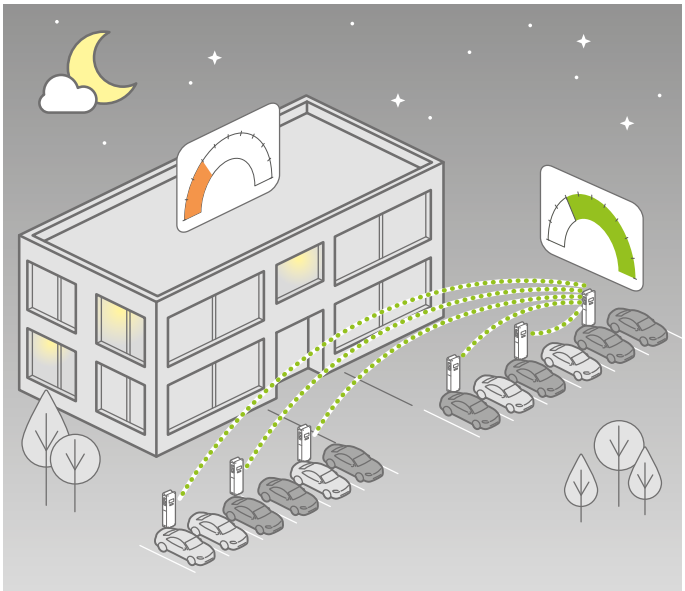
Thanks to Dynamic Load Management (DLM), Green'up Control charging stations automatically adjust the available charging power in real time between multiple vehicles, without exceeding the configured limit. This ensures intelligent charging with no risk of tripping, even under high energy demand, while avoiding the need to oversize the electrical installation. One charging station is configured as the Master, while the others operate as Slaves, all connected on the same Ethernet network, with support for up to 200 charging stations. Dynamic Load Management can be implemented either with or without a Charge Point Operator (CPO).

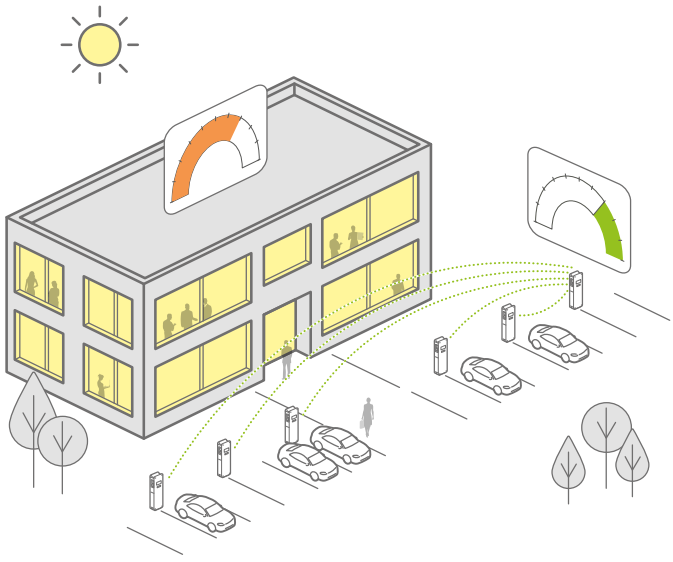
DEFINITIONS

Charging management can be either fixed or dynamic.

- **Static load management:** The maximum power allocated to all charging stations is defined once and does not take into account the building's overall electrical consumption

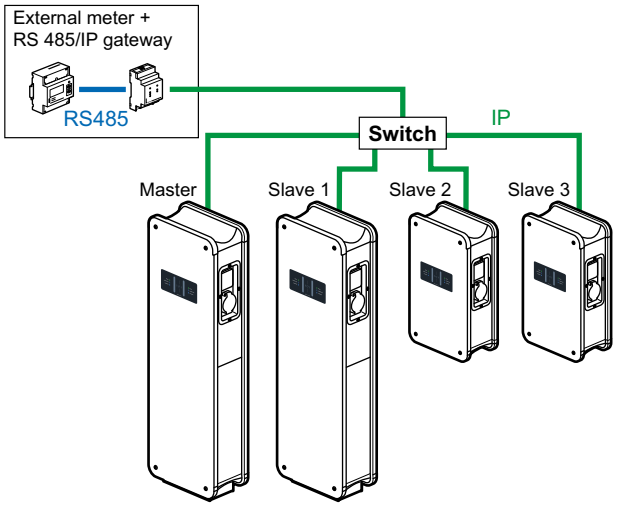
- **Dynamic Load Management (DLM):** The maximum power allocated to the charging stations is adjusted in real time based on the site's total electrical consumption. An external meter (not supplied) continuously measures the building's total load, and the Master charging station adapts the available charging power for each station accordingly

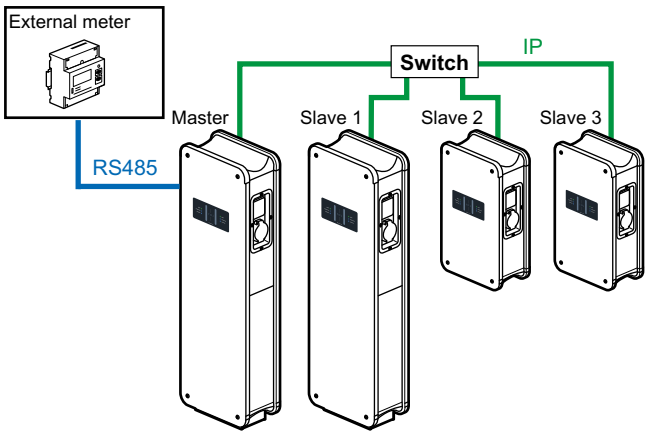




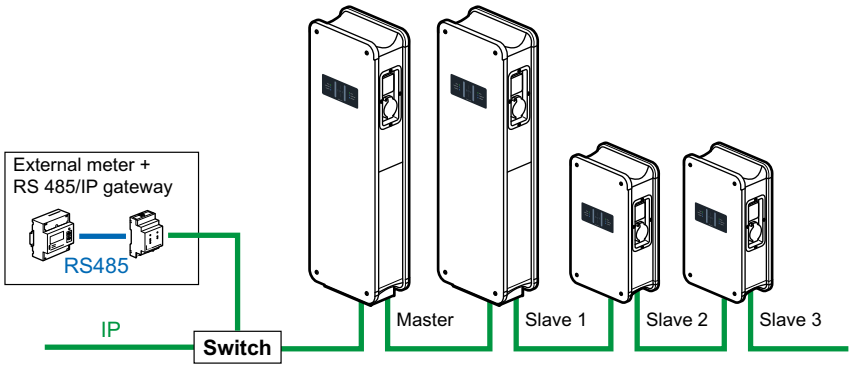
Reminder: dynamic load management requires an external meter, which must be ordered separately.

EXAMPLE: dynamic load management (DLM) with star-configured wiring





EXAMPLE: dynamic load management (DLM) with daisy-chain (series) wiring



It is also possible to connect an RS-485 meter directly to the Master charging station.

External contact connection

OPERATION OF THE EXTERNAL CONTACT ON A CHARGING STATION

The external contact allows charging authorization to be controlled depending on whether the contact is open or closed. Its behavior varies depending on whether RFID access control is enabled or disabled. Each charging point can operate differently.

- **Case 1: RFID access disabled (badge reader inactive or no badge registered**

In this mode, access to the charging station can be restricted based on time schedules or an external control device (timer switch, automation system, etc.).

· Open contact (0 V on the input): charging is prohibited.
· Closed contact (12 V on the input): charging is authorized for all vehicles.

- **Case 2: Access control enabled (badges registered locally or via a CPO)**

In this mode, badge-based control is combined with a global authorization through an external control.

· Open contact (0 V on the input): charging is authorized only if a valid badge (present in the whitelist) is presented..
· Closed contact (12 V on the input): charging is authorized for all vehicles, without badge control.

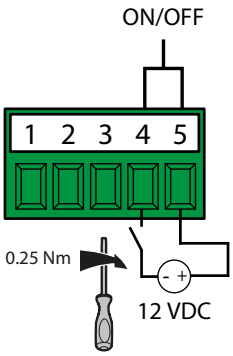
Behavior when the external contact opens (0 V):
- All charging sessions that were started by the closing of the contact (12 V) are immediately interrupted.
- Charging sessions started by presenting a badge (while the contact was already open) remain active. To stop them, the badge must be presented again or the charging must be stopped from the vehicle side

WIRING OF THE EXTERNAL CONTACT INPUT

The authorization input must be connected between pins 4 and 5 of the floating green connector.
A 12 VDC power supply is required for the proper operation of the external contact input.
Each charging point has a dedicated authorization input, whose operation varies depending on the charging mode used.

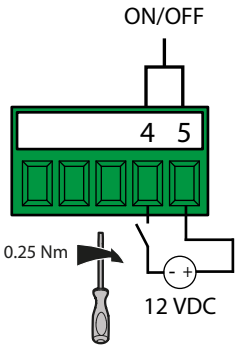
⚠ It is necessary to observe the polarity (+/–) on terminals 4 and 5 of the terminal block

Single charging station

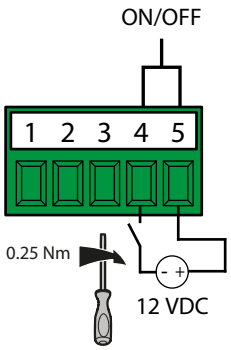


Dual charging station

Left-hand terminal block



Right-hand terminal block

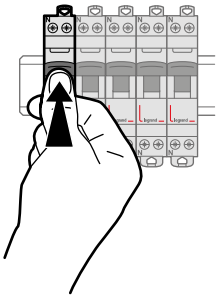


+ **Activating the external contact requires specific configuration** ► p. 37

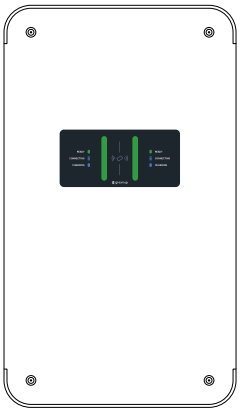
COMMISSIONING

1st commissioning

Once the charging station has been installed and wired, commissioning can be carried out.



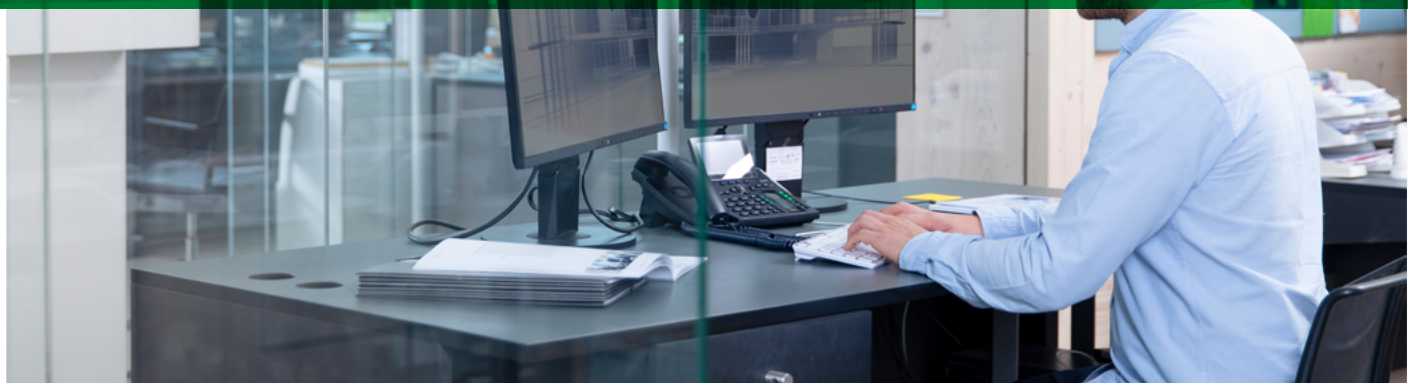
1. Set the protection devices to ON
- main protection devices in the distribution board or enclosure
- protection device inside the charging station, for models with integrated protection



2. The charging station LEDs will flash in different colors and then switch to a steady green (p. 46)
3. Configure the charging station (p. 31)
4. The charging station is now ready for operation.
5. The supplied RFID badges can be registered via the settings (p. 36)

If the indicator appears red, connect to the settings via a PC (p. 34) to identify and resolve the issue.

CHARGING STATION CONFIGURATION

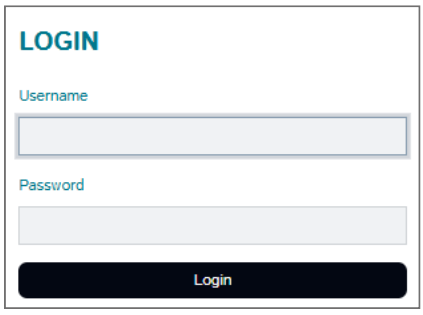


Once the charging station has been wired and powered on, the following connection procedure will allow you to configure it.
These steps must be carried out on each charging station.

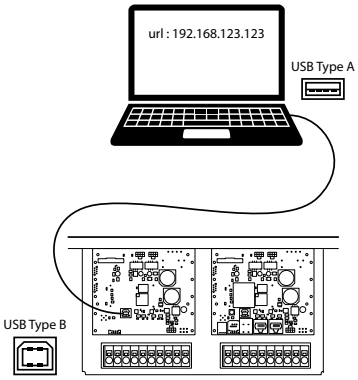
1 Connect the station to a PC using a USB-A to USB-B cable, then open a web browser.

2 Enter 192.168.123.123 in the browser's address bar.

A login page will appear.



A USB-A to USB-B cable (not supplied) is required for this operation

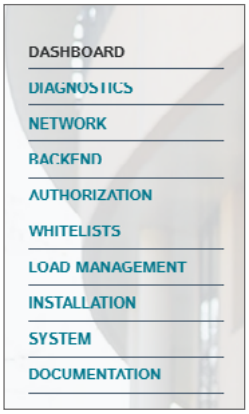


3 Fill in the following fields according to your access level (case-sensitive, uppercase and lowercase must be respected) :

- Installer access level:
  - Login: installer
  - Password: blue_zone
- Operator access level:
  - Login: operator
  - Password: yellow_zone

The password must be changed upon first login and within a maximum of 30 minutes. After this period, the board becomes permanently locked and inaccessible.
Password reset can only be performed by the manufacturer.

Once connected, an interface appears with a menu.
Below you will find the various features available in each section:



First steps

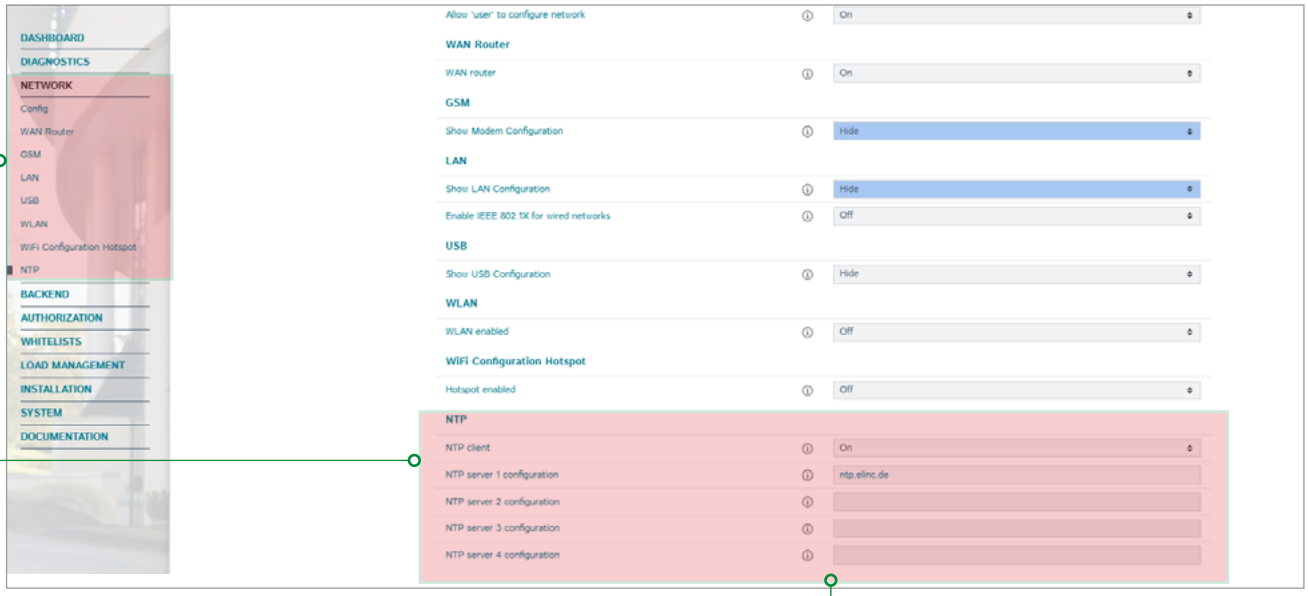
In the following pages, the displayed settings were configured using the 'operator' mode.
Before starting the specific charging station configuration steps, it is important to complete these initial setup actions.

TIME SETTING

The time mode depends on how the charging stations are connected within the installation.

- **With OCPP:** the time is set automatically through the connection to the CPO's OCPP server.

- **Connected to an IP Ethernet network (LAN or WLAN):** in the NETWORK menu, under the **NTP** section:
  - set the **NTP client** field to On and enter the URL address of the selected NTP server(s).



Tip: for more information about each field, click on ⓘ

For Green'Up Control charging stations that are not connected to an IP or 4G network, time synchronization will be lost in the event of a power outage. To restore the correct time, it is necessary either to temporarily connect a local PC or to integrate the charging station into a network.

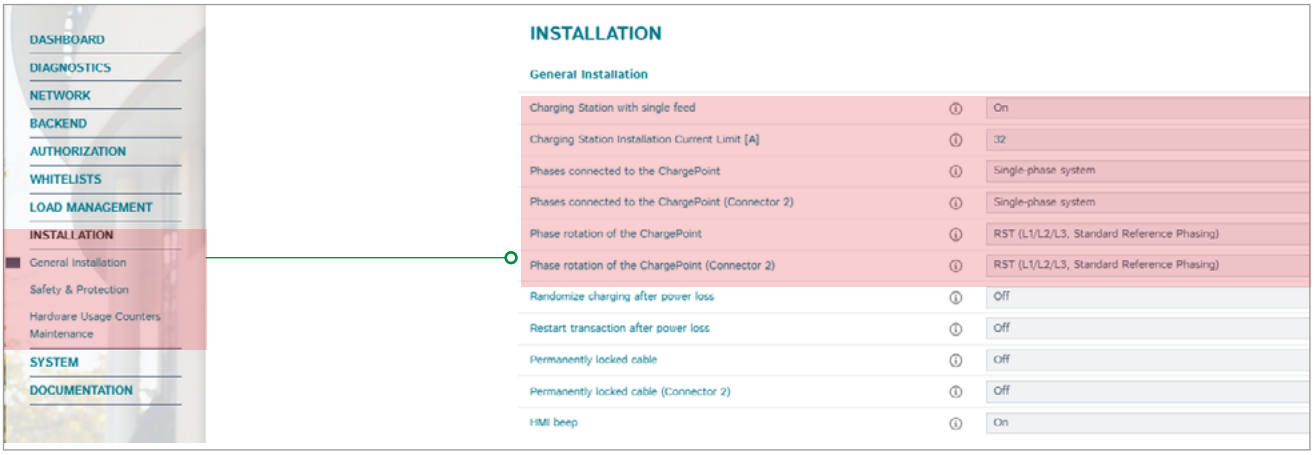
After each modification, it is advisable to save your changes and restart if needed.

SETTING THE INSTALLATION PARAMETERS (MAXIMUM CURRENT, PHASE ROTATION)

- In the **INSTALLATION** menu, fill in the following fields:

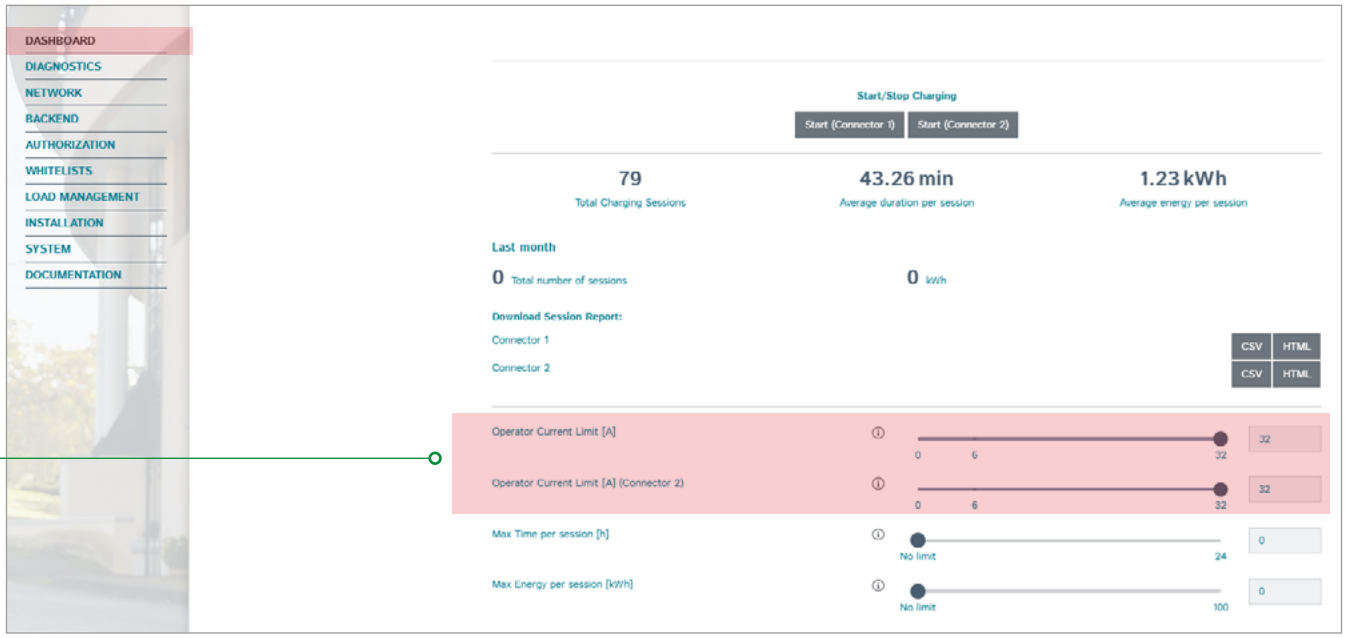
- Charging Station Installation Current Limit (A) : Set the maximum current for the charging station (supply current corresponding to the station's protection devices). For a dual charging station, this current will be shared equally between both sides.
- Phases connected to the ChargePoint: Select Single-phase system or Three-phase system
- Phase rotation of the ChargePoint: Select the parameter corresponding to the wiring.

When facing the charging station, connector 1 is on the right side and connector 2 is on the left side.



SETTING THE MAXIMUM CURRENTS ALLOCATED PER SIDE

- In the **DASHBOARD** menu, set the maximum current for each side of the charging station (current delivered to the connector).



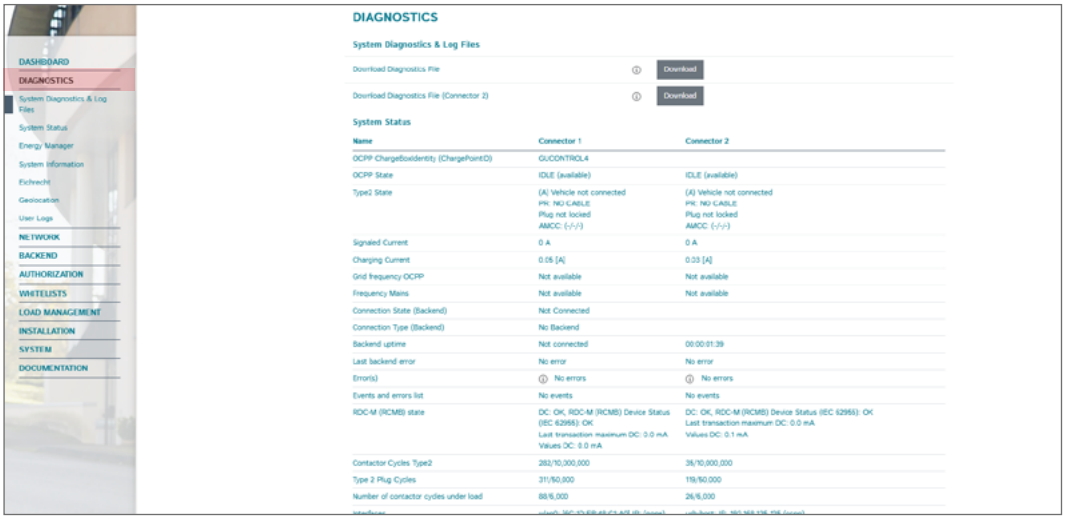
User interface overview

DASHBOARD: OVERVIEW OF CONSUMPTION INFORMATION

Allows you to view information on:
- the charging status
- the status of the charging station (Wh consumption, fault display, number of charging sessions, etc.)
- charging session history (total, duration, and average consumption)
- settings for the charge limit per connector and/or setting a maximum time per session

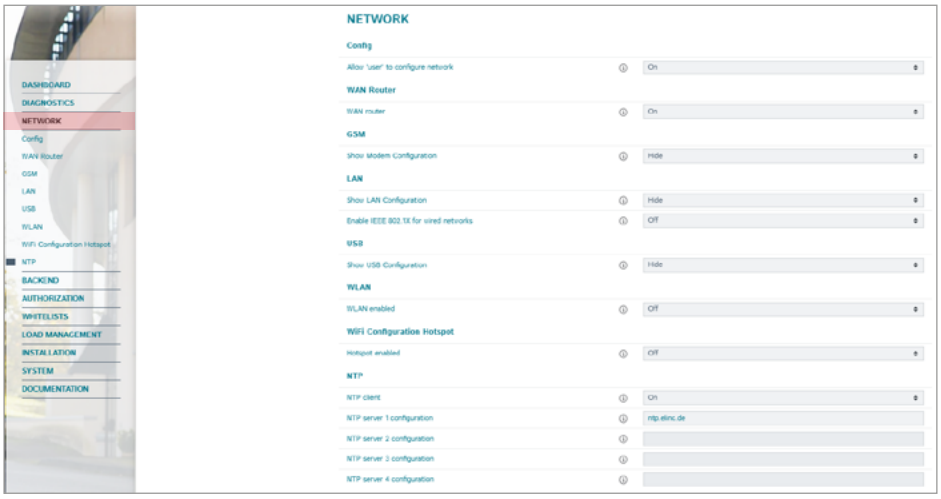
DIAGNOSTICS: COMPLETE PARAMETER OVERVIEW

Allows you to view the general information of the charging station:
- monitoring log with the option to download monitoring files
- system status (connection information)
- energy manager
- human-machine interface (HMI)
- user log



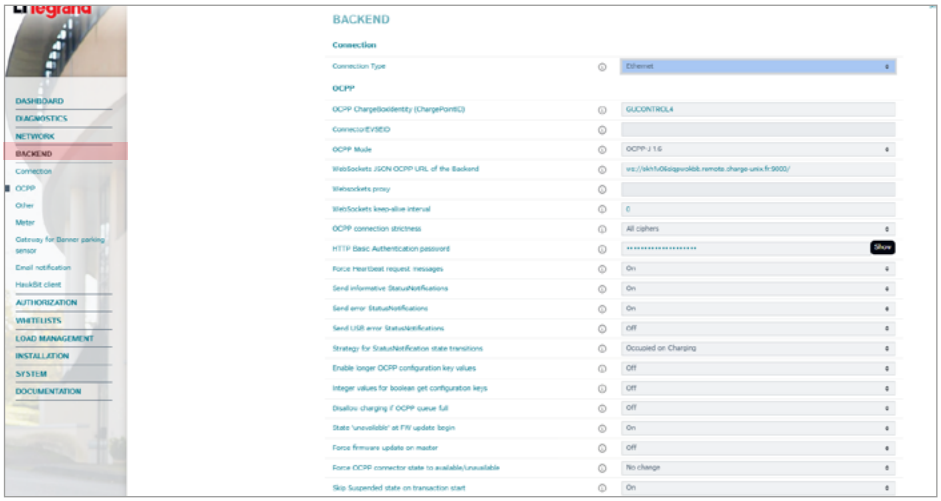
NETWORK

Connecting the charging station to networks (change the network status for charger configuration): WAN router, GSM, LAN, USB, WLAN, Wi-Fi, NTP



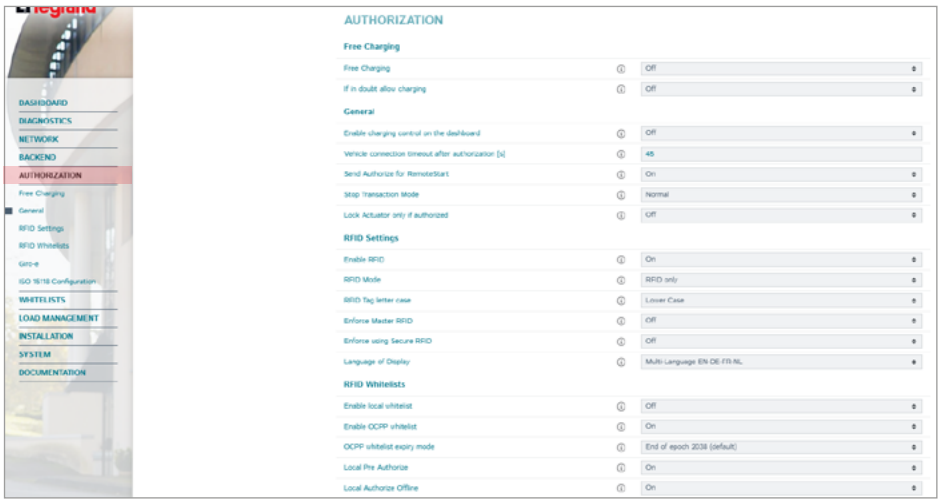
BACKEND (OCPP SERVER): CONNECTION SETTINGS (OCPP / PROXY, ETC.)

Allows configuration of the connection to the Charge Point Operator (CPO) server.



AUTORIZATION: ACCESS MANAGEMENT FOR THE CHARGING STATION (BADGE, FREE CHARGING, ETC.)

Allows management of access to charging for the charging station: activation or deactivation of the RFID reader, immediate charging mode, etc.
To load multiple badges, go to the WHITELISTS menu

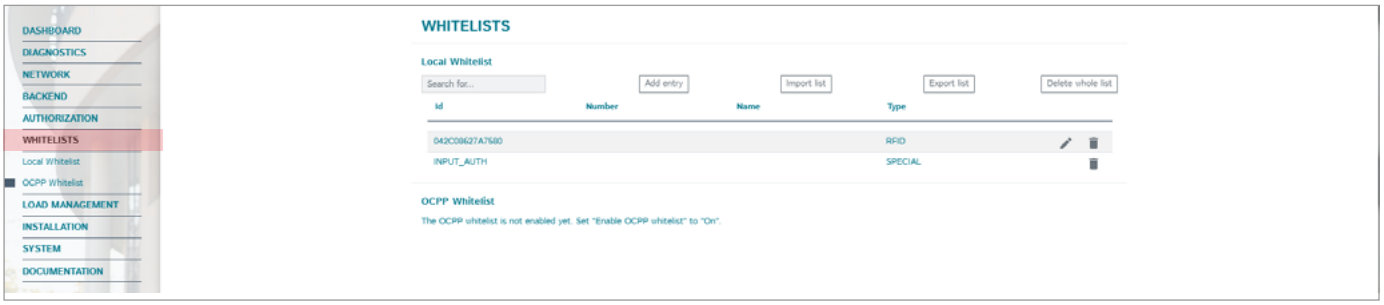


To add / remove a badge see p. 36

User interface overview (continued)

WHITELISTS: BADGES MANAGEMENT

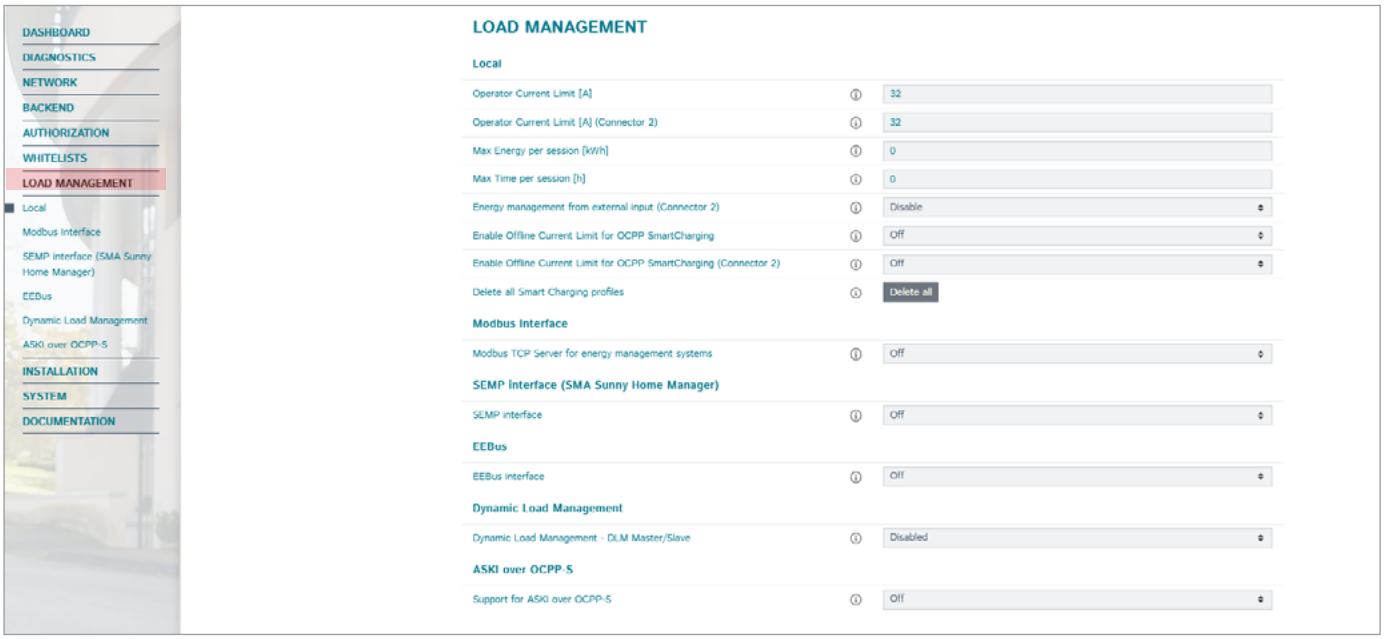
Allows management of RFID badges: add or remove a badge, import or export a badge list.
When an OCPP connection is active, the badges in this list take priority over those stored in the backend.



Badge management use cases p. 39

LOAD MANAGEMENT: CURRENT SETTINGS, POWER, ETC.

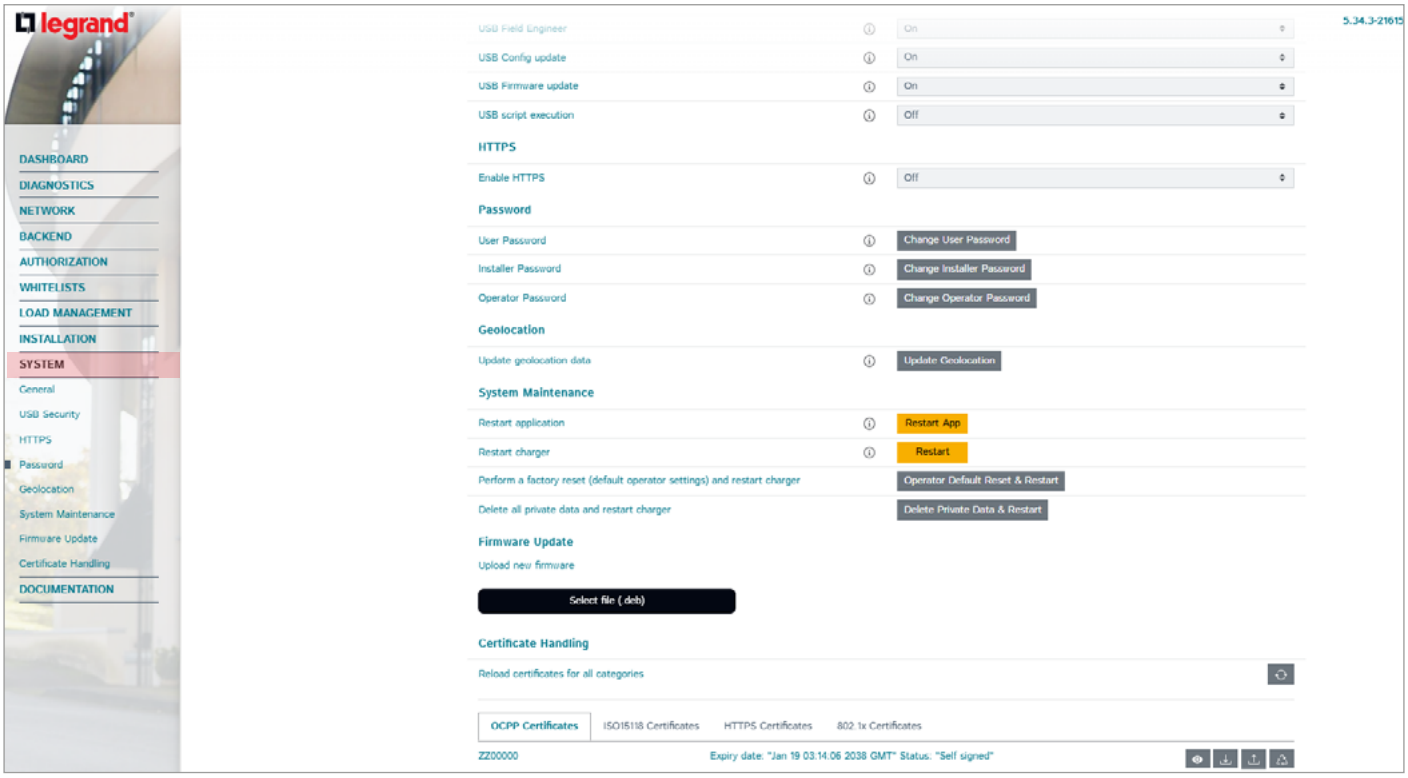
Allows configuring the load management section:
- locally: by setting the current limit, enabling the power-limiting mode, or defining the maximum session time,
- dynamic load management: by configuring the Master charging station and the Slave charging stations.



SYSTEM : SYSTEM SETTINGS ADJUSTMENT

Allows standard system configuration: changing default passwords, restarting, updating the firmware, resetting the system, geolocation, etc

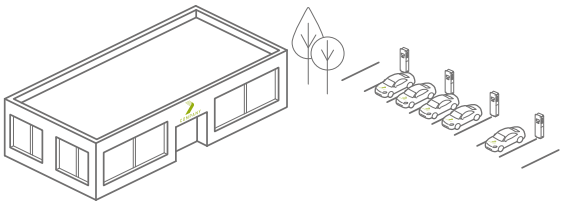
⚠ For any password change, it is important to create a recovery badge.



USE CASE WITHOUT SUPERVISION

To perform these operations, your connection must be made in “operator” or “installer” mode.

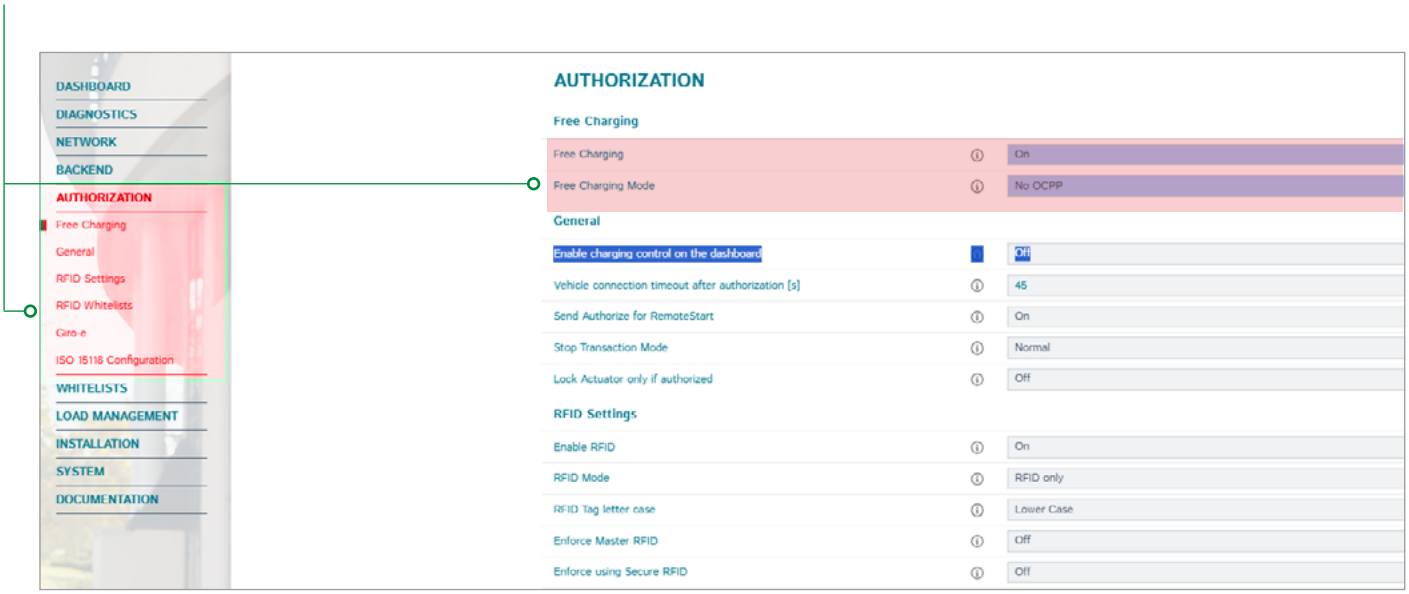
Configure the charging station for free charging (immediate charging without a badge)



Allows free access to charging without authorization management.

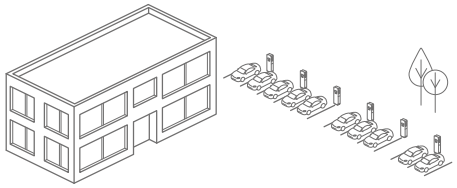
- In the **AUTORIZATION** menu,

- set the **Free Charging** field to On
- set the **Free Charging Mode** field to No OCPP



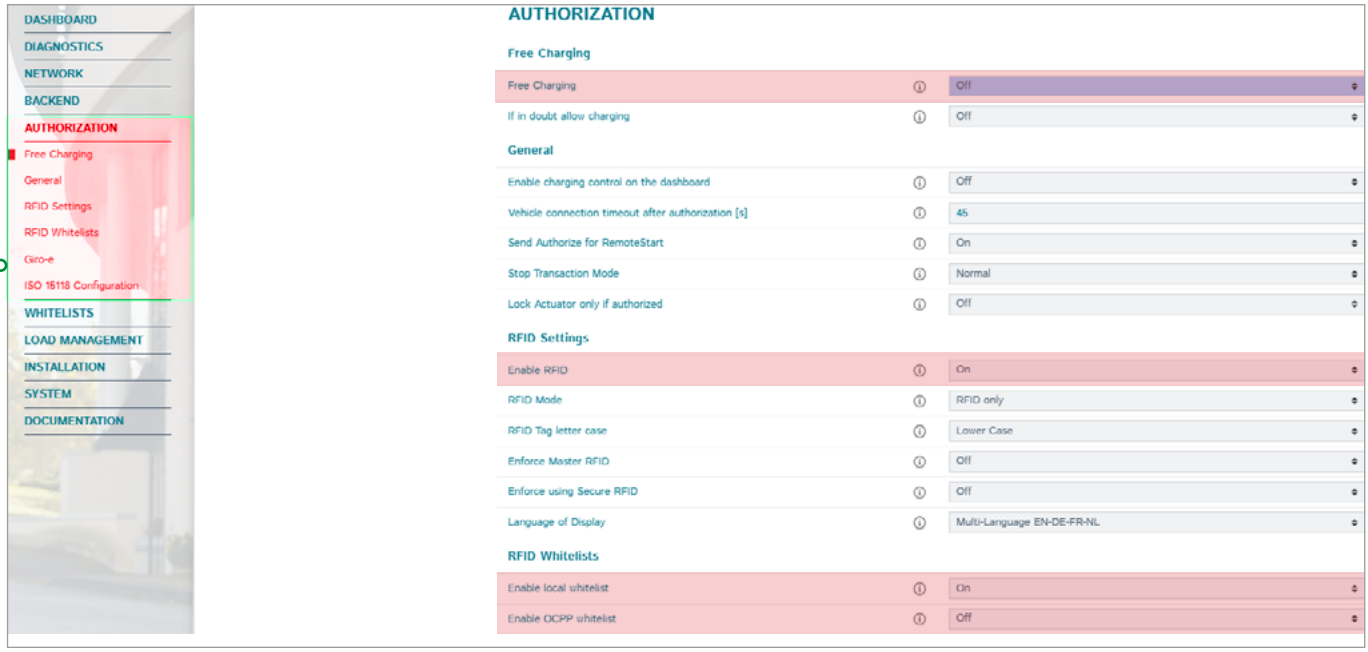
Configure the charging station with access control (badges)

Allows access to charging with authorization management (RFID badges)



- In the **AUTORIZATION** menu,

- set the **Free Charging** filed to Off
- set the **Enable RFID** filed to On
- set the **Enable local whitelist** filed to On
- set the **Enable OCPP whitelist** filed to Off



TO ADD BADGES USING A LIST

- In the **WHITELISTS** menu, to configure the badges:

- to add 1 badge: click on Add entry
- to add multiple badges: click on Export list

Fill in the file following the required format (ID, badge number, user name) (for example : 7AC72513, 2, Durant), then import the file by clicking on Import list

⚠ In the case of dynamic load management (DLM), all badges present in the Slave charging stations' whitelist must also be registered in the Master charging station's whitelist.

USE CASE WITHOUT SUPERVISION

To perform these operations, your connection must be made in “operator” or “installer” mode.

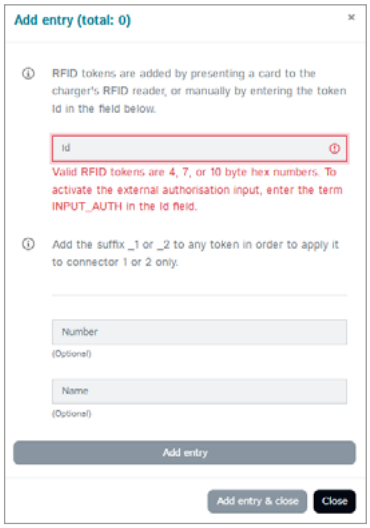
Configure the charging station with access control (badges) - continued

TO ADD A BADGE USING THE STATION’S READER

- In the **WHITELISTS** menu,

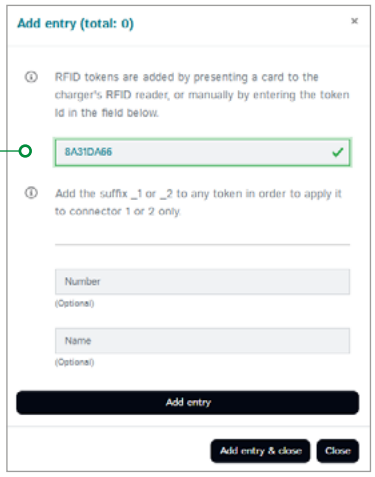
- to add 1 badge: click on Add entry

A window opens,



Hold the badge to be added in front of the RFID reader

- the badge's UID is displayed in the ID field of the window in green.



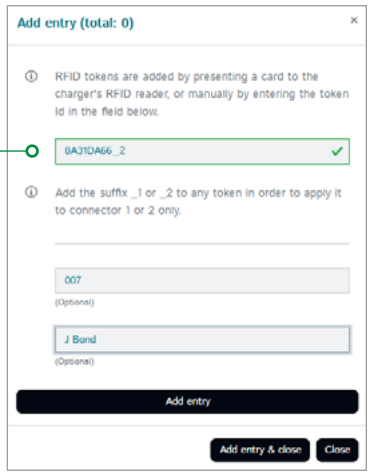
To complete this single registration: click on Add entry and close the window.
To add another badge: click on Add entry.

ASSIGNMENT OF A BADGE TO A CONNECTOR ON A DUAL CHARGING STATION

On a dual charging station, it is possible to associate a badge with only one connector (right or left).
To do this, when registering the badge, you must add a suffix indicating the chosen connector.

Suffixes to use:
_1 for connector 1
_2 for connector 2

This suffix must be added after the badge number in the main field, as shown opposite.
Example : 8A31DA66_2 (badge assigned to connector 2)

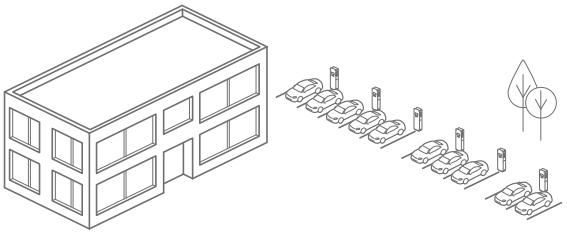


Warning: Once the association has been made via the web pages, it is no longer possible to modify the connector.

In case of an error in the connector selection, you have two options:
- Delete the badge and restart the registration process.
- Reload the (.csv) list after correcting the connector.

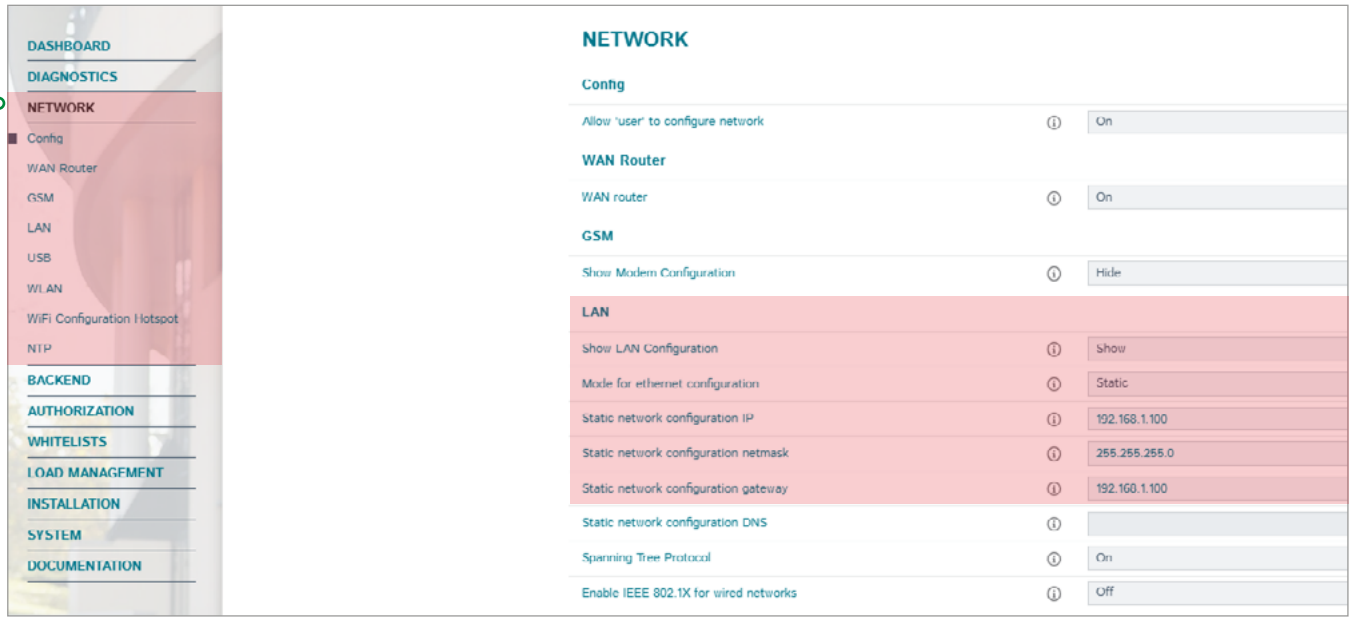
USE CASE WITHOUT SUPERVISION

Configure the LAN or WLAN IP addresses for local network connection

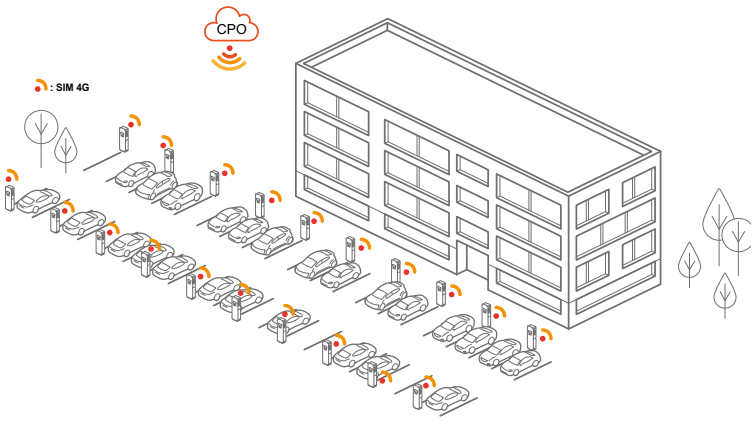


This allows the charging stations to be connected to a local IP network.

- In the **NETWORK** menu,
- set the **Show LAN Configuration** field to Show
- enter the IP addresses

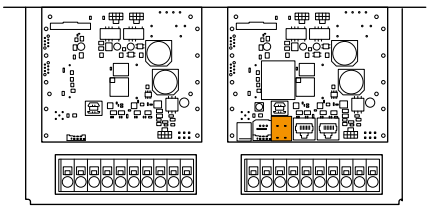


USE CASE WITH CPO



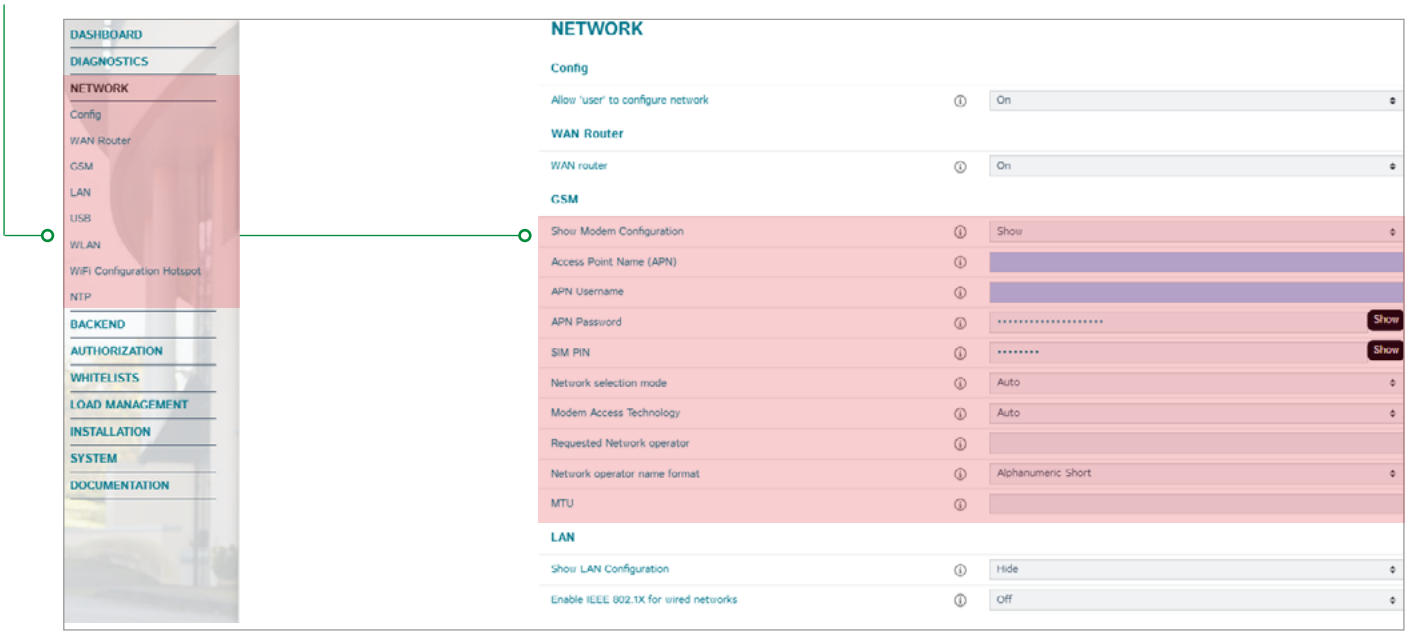
Configure the operated mode (with charge point operator)

This allows the charging station to be connected to a charge point operator (CPO) via the integrated 4G router.



- I insert my SIM card into the Master electronic board.

In the NETWORK menu, under the **GSM** section:
- set the **Show Modem Configuration** field to Show
- fill in the **Access Point Name (APN)** field with the SIM card's APN code
- fill in the other fields if necessary
- save

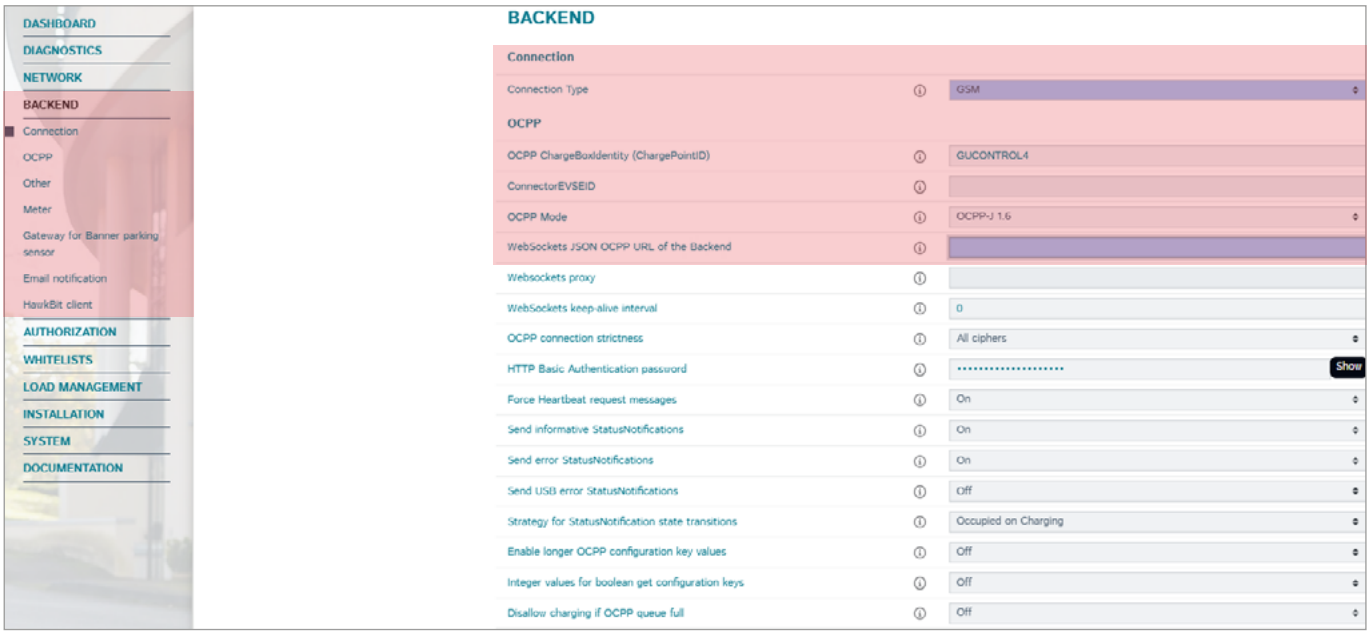


It is also possible to connect the charging stations via a LAN or WLAN IP network and use an external GSM modem to connect them to the OCPP server.

Configure the operated mode (with charge point operator) - continued

- In the BACK END menu, fill in the following fields:

- **Connection type:** select the appropriate connection mode (GSM, Ethernet, WLAN, etc.)
- **OCPP ChargeBoxIdentity (ChargePointID):** OCPP server connection UID
- **WebSockets JSON OCPP URL of the Backend:** enter the OCPP server URL provided by the charge point operator (CPO)

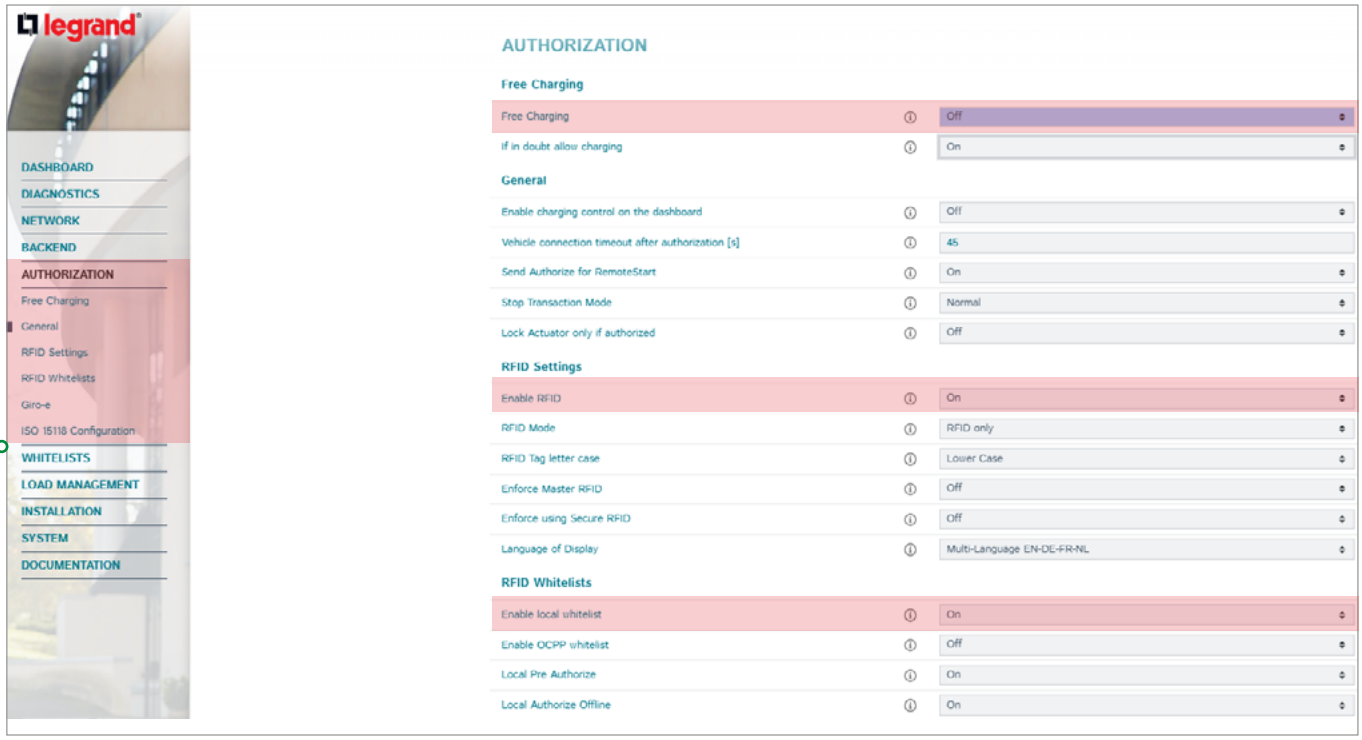


EXTERNAL CONTACT CONFIGURATION

SETTINGS

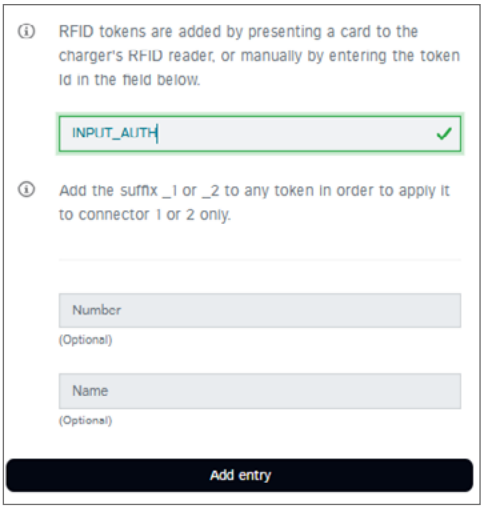
By default, the authorization input for the external contact is deactivated.
To activate it, you must:

- In the **AUTORIZATION** menu, in the **Free Charging** section:
  - Set the **Free Charging** field to Off
  - Set the **If in doubt, allow charging** field to On
- In the **RFID Settings** section
  - Set the **Enable RFID** field to On
- In the **RFID Whitelists** section
  - Set the **Enable local whitelist** field to On



It is necessary to restart the charging station to validate this setting

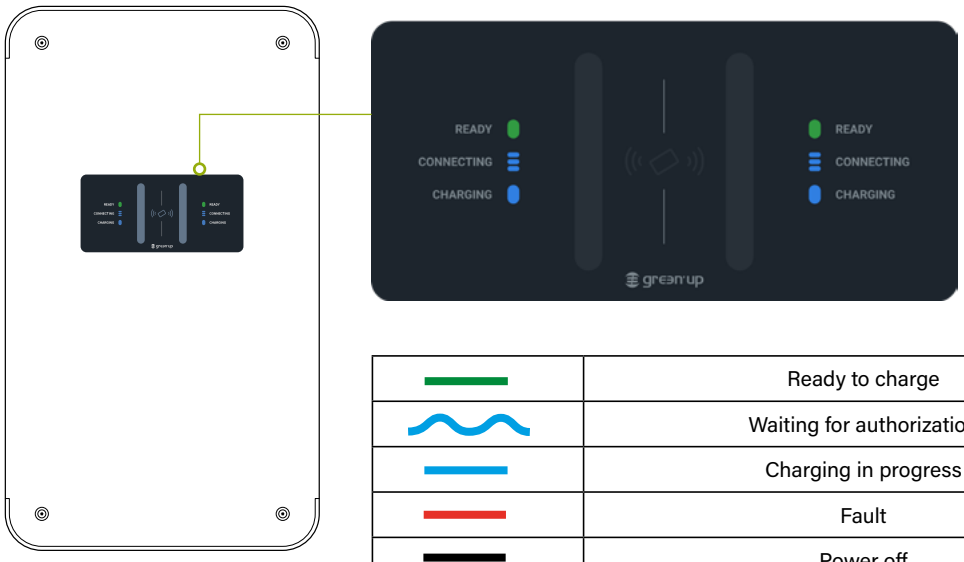
- In the **WHITELISTS** menu,
  - Click **Add entry,** then create an **INPUT_AUTH** entry in the charging station's local list.



In case of charging with this entry, the dashboard will display "Input" for the registered badge **(p. 28)**

Indicators on the charging station

Once the Green'up Control charging station is configured, the operational indicators are green and blue (steady or flashing).
If the front indicator is red, a fault is present.



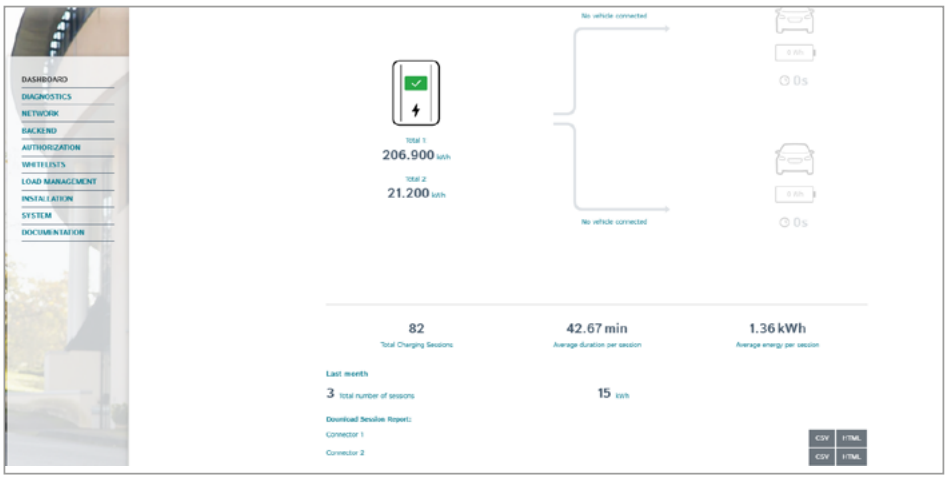
	Ready to charge
	Waiting for authorization
	Charging in progress
	Fault
	Power off

Troubleshooting

Here are some possible faults and actions to take to resolve them.

FAULT	POSSIBLE CAUSES	SOLUTIONS / ACTIONS
Steady/flashing red indicator light.	Installation fault	Disconnect the vehicle and restart the charging station. Turn off the power at the protection level, wait for the indicators to go out (this may take a few seconds), then turn the circuit back on.
		If the fault persists, please contact customer service.
Indicator light off.	Power off	Check the status of the RCBO.
		Check the status of the charging station's protection circuit breaker.
		Turn the power ON.
		If the fault persists, please contact customer service.
Vehicle plugged in but green or blue indicator Charging does not start.	The cord is not properly connected	Check the connection of the cord on the charging station and on the vehicle (unplug and replug until charging starts).
	Electrical fault	Verify the electrical characteristics of your installation (voltage, ground resistance, etc.)
	RFID badge not recognized	Present a registered badge again in front of the reader located on the front of the charging station's screen.
The charging station does not charge at maximum power.	Maximum charging power of the vehicle reached	Check the charging power accepted by the vehicle (onboard charger power). The vehicle may limit the power it absorbs by itself.
	Maximum power of the charging station incorrectly set	Check the maximum power in the settings. Note: Ensure that the protections are in accordance with the recommendations (p. 17)
The cable is locked in the charging station while no charging session is in progress (Type 2 Mode 3 side)		Stop charging from the vehicle.
		Turn off the power from the protection device, wait for the indicators to go out (this may take a few seconds), then turn the circuit back on.
		If the problem persists, contact your customer service.

The Dashboard menu provides access to information related to faults currently being detected, thereby facilitating diagnostics and the identification of anomalies.



► p. 28

MAINTENANCE

Spare parts for maintenance

Cat.Nos		Type of product	Cat. Nos of compatible products
9 820 00		Door with glass screen mounted	All charging stations
9 820 01		MID Energy Meter	All charging stations
9 820 02		Power electronic board with cable	All charging stations
9 820 03		HMI electronic interface board with USB cable	All charging stations
9 820 04		GSM Antenna with Cable	All charging stations
9 809 49		Base and protective cover for Mode 3 T2S socket	All charging stations
9 809 51		Sub-assembly Mode 3 T2S socket	All charging stations

The new Green'up Control charging stations for electric vehicles was designed with Circular Economy principles in mind such as modularity and repairability. Their design allows an easy disassembly of the parts and their substitution, prolonging the lifetime of the product and reducing the generation of wastes.

Cat.Nos		Type of product	Cat. Nos of compatible products
9 809 52		Reinforced Soliroc outlet, Mode 2, French/Belgian standard	0 580 28 0 580 29
9 818 01		Reinforced Soliroc outlet, Mode 2, German standard	0 580 38 0 580 39
9 809 60		Locking motor for Mode 3 T2S socket	All charging stations
9 809 54		Upper flange kit	0 580 81/82/83/84 0 580 91/92/93/94
9 809 55		Front wall panel	0 580 81/82 0 580 91/92
9 809 66		Pedestal-mounted panels (front and rear)	0 580 83/84 0 580 93/94
9 809 67		Mode 2 + Mode 3 socket support	All charging stations
9 818 02		Screws for panel mounting	0 580 81/82/83/84 0 580 91/92/93/94

Maintenance schedule

During its use, the charging station may be exposed to various factors such as very low or very high temperature variations, overvoltages, a hostile environment, corrosive conditions, ambient pollution (e.g., dust, humidity, animals, salt fog...), operational wear (e.g., contactors, connectors...), etc.
Performing the various maintenance operations at the recommended intervals will ensure the charging station operates under optimal conditions and maximize its lifespan.
The maintenance of the charging stations for electric vehicles must be carried out by qualified, trained and authorized personnel, in accordance with the regulations in force in each country..
The indicated periodicity is conditioned by the actual environment, such as extreme temperatures, high dust levels, saline environment, corrosive atmosphere, significant vibrations, and intensive use. In these more severe operating and environmental conditions than normal, the maintenance of the charging station must be carried out more frequently.

OPERATIONS	PERIODICITY	POWERED DOWN	IN SERVICE (OPERATING)
1/5 - GENERAL MAINTENANCE			
External cleaning	6 months[1]	X	
Make sure there are no foreign objects inside the charging station	Annual[1]	X	
Internal cleaning (dust removal by suction)	Annual[1]	X	
Integrity of ground connections	Annual[1]	X	
Visually check that there is no moisture inside and outside the charging station (condensation)	Annual[1]	X	
Check charging station integrity	Annual[1]		X
Touching up any scratches or corrosion spots with specific varnish	Annual[1]		X
Verification of the presence of identification and operating-instruction stickers	Annual[1]		X
2/5 - MECHANICAL INSPECTIONS			
Check the proper functioning of the socket cover	Annual[1]		X
Check tightening torques: conductors, terminal blocks and assembly screws	1st commissioning 2 months after 1st commissioning Then annual	X	
Grease sockets (perfluorinated lubricant such as Lubrilog Fluolog MG 2)	Annual[1]	X	
T2s socket lock motor	Annual[1]	X	
3/5 - ELECTRICAL INSPECTIONS			
Checking the grounding of the charging station[2]	1st commissioning		X
Visual inspection of cable integrity	Annual[1]		X
Test of the residual-current device and the integrated protections	1st commissioning Then Annual		X
Control of the built-in 6mA protection	Annual[1]		X
Measuring electrical values: simple and compound voltage, frequency... inputs/ outputs	Annual[1]		X
4/5 - FUNCTIONAL INSPECTIONS			
Visual and functional inspection of auxiliaries Use a load simulator	Annual[1]		X
T2s locking motor	Annual[1]		X
Green'up Access socket detection (only for Mode 2 charging station)	Annual[1]		X
5/5 - OTHER			
Checking the charging station firmware version	6 months[1]		X

(1) To be modulated according to installation and usage conditions
(2) Some vehicles require a ground < 30 ohm

NOTES

NOTES

legrandgroup.com

youtube.com/user/legrand

linkedin.com/company/legrand

x.com/Legrand

World Headquarters
and International Department
87045 Limoges Cedex - France
Tel: +33(0)5 55 06 87 87

legrand®