



INSTALLER GUIDE



GREEN'UP CONTROL LIGHT CHARGING STATIONS

LEGRAND

SUPPORTING YOU IN ALL YOUR PROJECTS

INTRODUCTION

Green'up Control Light charging stations have been designed to meet the electric vehicle charging needs of multi-residential buildings and small commercial facilities, combining robustness, ease of installation and connectivity. Suitable for operation with or without supervision, they provide a reliable and scalable solution to support the deployment of EV charging infrastructure.

This guide is intended to support the installer at each stage of implementation: installation, connection, commissioning and configuration. It brings together the essential information required to ensure integration in accordance with Legrand recommendations, as well as efficient and long-lasting operation of the charging station in its installation environment.

LEGAL INFORMATION

The presentation photos do not always show personal protective equipment, although such equipment is subject to legal and regulatory requirements that must be strictly complied with.

In accordance with its policy of continuous improvement, the Company reserves the right to modify specifications and drawings without prior notice. All illustrations, descriptions and technical information contained in this documentation are provided for information purposes only and shall not be considered binding on the Company.



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SAFETY INSTRUCTIONS



Failure to strictly apply the procedures and comply with these recommendations may expose the person carrying out the work to the risk of serious accidents, endangering people and property (including, without limitation, risks of burns, electric shocks, etc.).



General information

- Only use products and accessories recommended by the Legrand Group in the general catalogue, notices, technical data sheets and all other documents made available by Legrand, hereinafter referred to as "Documentation", in compliance with the installation rules.



Incorrect installation or use may result in the risk of electric arcs inside the enclosure, overheating or fire. Enclosures must be used under normal conditions, meaning that they must not be subjected to voltage/current/temperature values other than those specified in the Documentation.

- Legrand declines all liability in the event of any modification or repair not authorised by the Legrand Group to the equipment making up the enclosure, as well as any failure to comply with the rules and recommendations established by Legrand in the Documentation. Furthermore, in the cases referred to above, the warranty granted by Legrand shall not apply.
- The suitability of the product characteristics for their environment and intended use during maintenance operations must be checked, and reference must be made to the Documentation.
- For any questions or requests for clarification, please contact your Legrand Group representative.

Protection/Safety



- Installation, operation and maintenance work on the enclosures and the components they contain must be carried out by qualified, trained and authorised personnel, in accordance with the applicable rules in force in each country.
- Persons working on the installation must have the appropriate electrical authorisations for the work to be carried out.
- Wear the PPE (Personal Protective Equipment) required for work on live products.



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

Maintenance

- Depending on the maintenance operations to be carried out, partial or total power disconnection of the enclosure in which the work is to be performed must be planned before any intervention on it.
- During operations involving access to the inside of the enclosure, beware of the risks of burns and cuts before touching the products and metal parts.
- Before switching the power back on, check that there are no foreign bodies present and ensure that all physical protections have been refitted, such as screens, covers and front plates.



Risk of electric shock, burns and explosion.

The rules and recommendations set out in this document are based on our knowledge of the typical conditions of use of our products in commonly encountered fields of application. However, it is always the customer's responsibility to check and validate that Legrand products are suitable for their installation and intended use.

The customer must ensure that proper installation, maintenance and operating practices are followed in order to prevent any risk of personal injury or property damage in the event of product failure, particularly for applications requiring a very high level of safety, such as those in which the failure of a component may endanger people's lives or health.

The rules relating to storage, handling, installation and maintenance, as well as the appropriate precautions and warnings, must be strictly observed and applied.

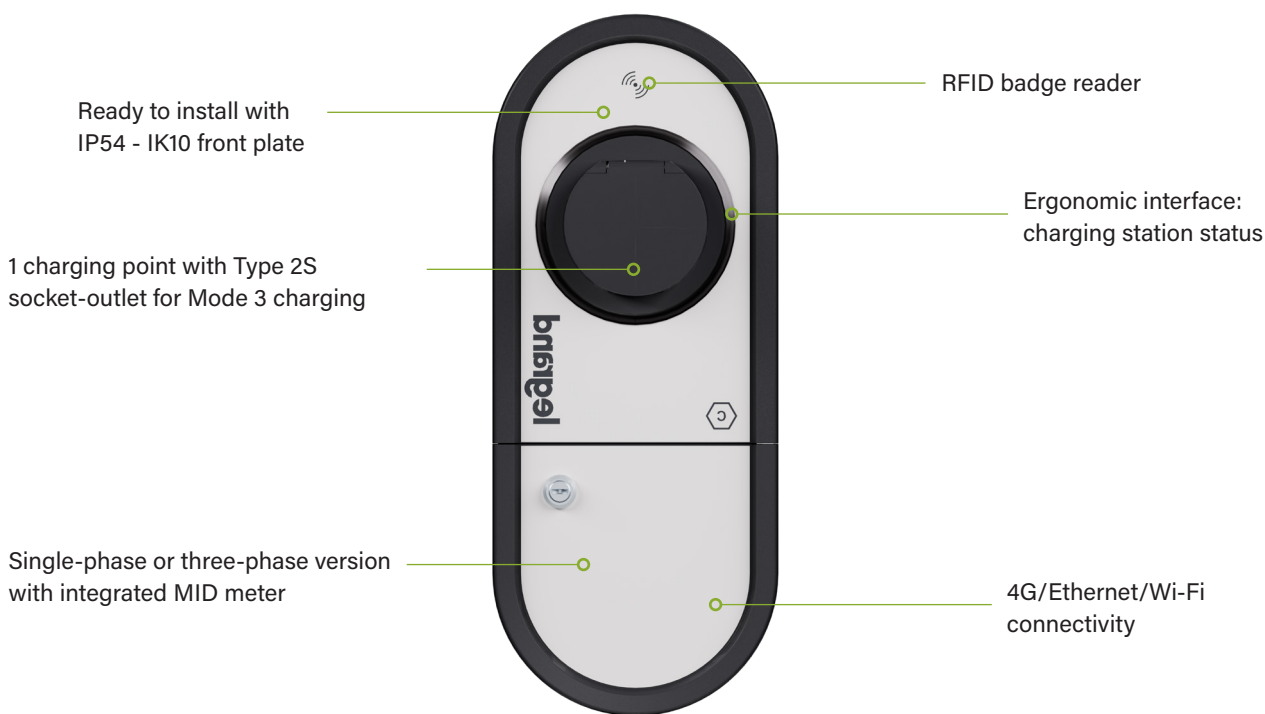


CHARGING STATIONS FOR ELECTRIC VEHICLES

GREEN'UP CONTROL LIGHT

Reliable and scalable EV charging stations, suitable for commercial applications such as small retail premises, as well as multi-residential buildings. Designed for installation in car parks, indoors or outdoors, thanks to their robust plastic structure, they can be floor-mounted using a pedestal or wall-mounted.

They integrate features such as access control, energy management and remote connectivity, making these charging stations an essential solution for charging points operated by a Charge Point Operator (CPO), or for non-supervised installations in multi-residential buildings or small commercial facilities.



Ergonomic interface with display:
- charging status
- RFID badge reader

4G / Ethernet / Wi-Fi connectivity



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

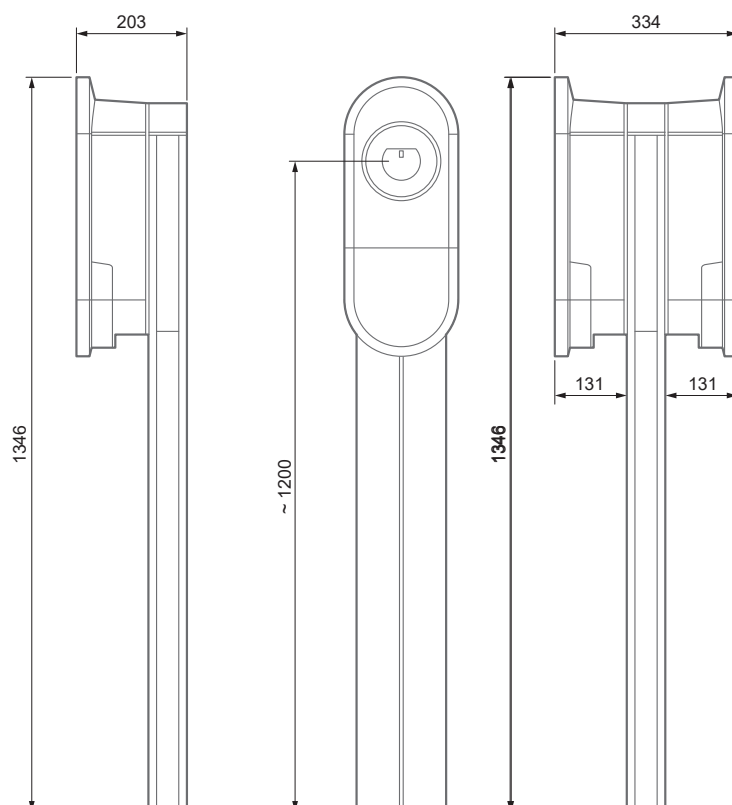
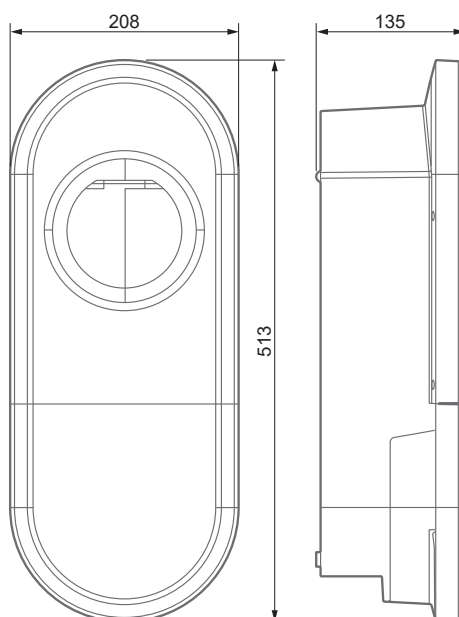


Available in several configurations to meet installation requirements :

- wall-mounted or pedestal-mounted with ref. 0 570 18
- version with or without 4G
- single-phase pack version with integrated protection



Power	Electrical protection	Connectivity	Cat. No.	Accessory for floor mounting
Single-phase 7.4 kW - 32 A	Supplied without protection	LAN, Wi-Fi without 4G	0 580 31	0 570 18
	Supplied without protection, with 4G	LAN, Wi-Fi + 4G	0 580 33	0 570 18
	With integrated protection, with 4G	LAN, Wi-Fi + 4G	0 580 37	0 570 18
Three-phase 22 kW - 32 A	Supplied without protection	LAN, Wi-Fi without 4G	0 580 32	0 570 18
	Supplied without protection, with 4G	LAN, Wi-Fi + 4G	0 580 34	0 570 18



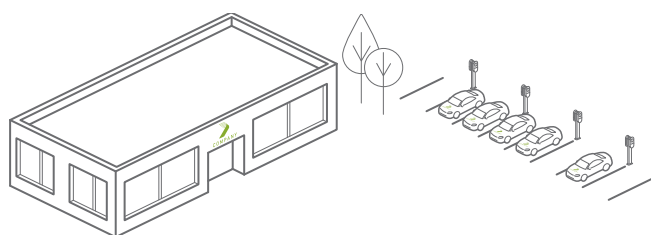
CHARGING STATIONS FOR ELECTRIC VEHICLES

GREEN'UP CONTROL LIGHT

FUNCTIONS AND INSTALLATIONS WITH OR WITHOUT DYNAMIC LOAD MANAGEMENT

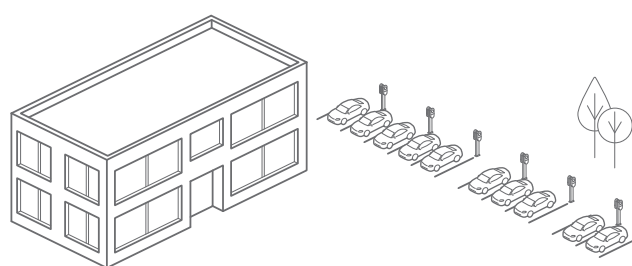
STANDARD OPERATION

For unrestricted charging, without supervision



OPERATION CONNECTED TO AN IP NETWORK (LOCAL MANAGEMENT)

The owner manages access, maintenance and operation.



KEY POINTS

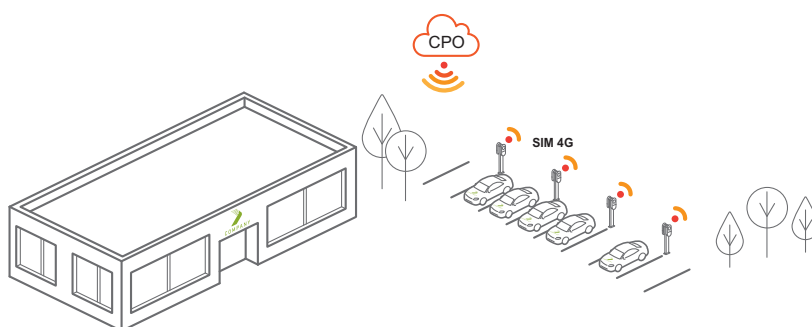
Here are some key instructions to follow to ensure installation in accordance with our manufacturer's recommendations:

- Maximum Ethernet cable length: 100 m max., with Category 6 Ethernet cable recommended as a minimum or
 - Wi-Fi connection for proper operation of the charging station: IEEE 802.11 b/g/n Wi-Fi 2.4 GHz frequency band. Range: 100 m in open field
 - For Cat. Nos. 0 580 33/34/37, sufficient 4G network coverage is required when using a SIM card to connect to Charge Point Operators.
- Before installation, check that the Wi-Fi and/or 4G signal is sufficiently available and strong at the installation location to ensure a stable connection.

OPERATION WITH A CHARGE POINT OPERATOR (CPO)

Configuration is carried out by the installer (p. 19), and the Charge Point Operator subsequently manages the installation.

Example layout for an EV charging infrastructure with charging points supervised by a Charge Point Operator (CPO)



OPERATION WITH AN EXTERNAL MANAGEMENT SYSTEM

For a large number of charging points, a functional analysis must be carried out to define the most appropriate architecture and determine whether an external server is required, depending on the operating needs of the installation (site supervision, dynamic load management, etc.).

Legrand offers complete support and dedicated services for carrying out the functional analysis and commissioning your project.



Charging station details

The charging stations are supplied with 1 integrated MID meter, RFID reader (can be enabled/disabled), GSM* for Charge Point Operator SIM card (not supplied), Ethernet connection, Wi-Fi and integrated 4G*.

* Cat. Nos. 0 580 33/34/37

- ✓ All charging stations are supplied for direct wall mounting.
- 💡 They can be equipped with a pedestal, Cat. No. 0 570 18, for floor mounting.

7.4 kW charging station
Cat. Nos. 0 580 31/33 - Mode 3



Slot location for 4G micro-SIM card for Cat. Nos. 0 580 33/37

MID meter for accurate consumption measurement and billing capability

22 kW charging station
Cat. Nos. 0 580 32/34 - Mode 3



Slot location for 4G micro-SIM card for Cat. No. 0 580 34

MID meter for accurate consumption measurement and billing capability

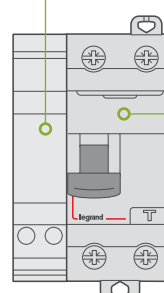
Pack Cat. No. 0 580 37

74 kW single-phase charging station
Cat. No. 0 580 33



1 shunt release Cat. No. 4 062 76

1 40 A Type F 30 mA residual current circuit breaker Cat. No. 4 108 59



CHARGING STATION INSTALLATION



The Green'up Control Light electric vehicle charging station can be wall-mounted or pedestal-mounted for floor installation.

► All mounting steps are available in the charging station instruction sheets on the online catalogue.

Mounting

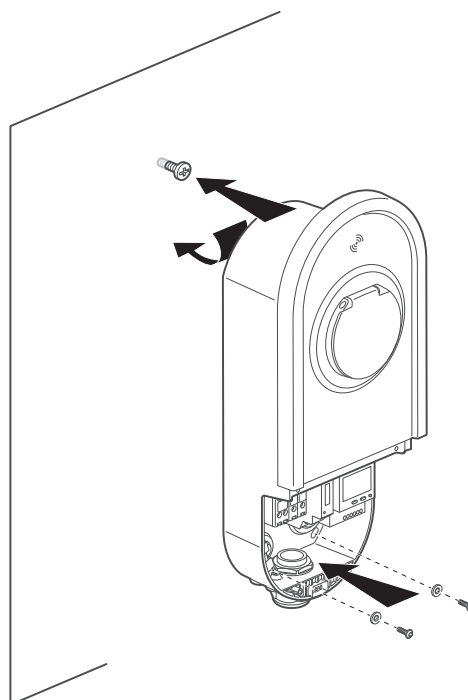
WALL MOUNTING CAT. NOS. 0 580 31/32/33/34/37

Wall mounting (without accessory)



Installation: to comply with accessibility requirements for people with reduced mobility, the charging station mounting bracket must be wall-mounted in accordance with the following conditions:

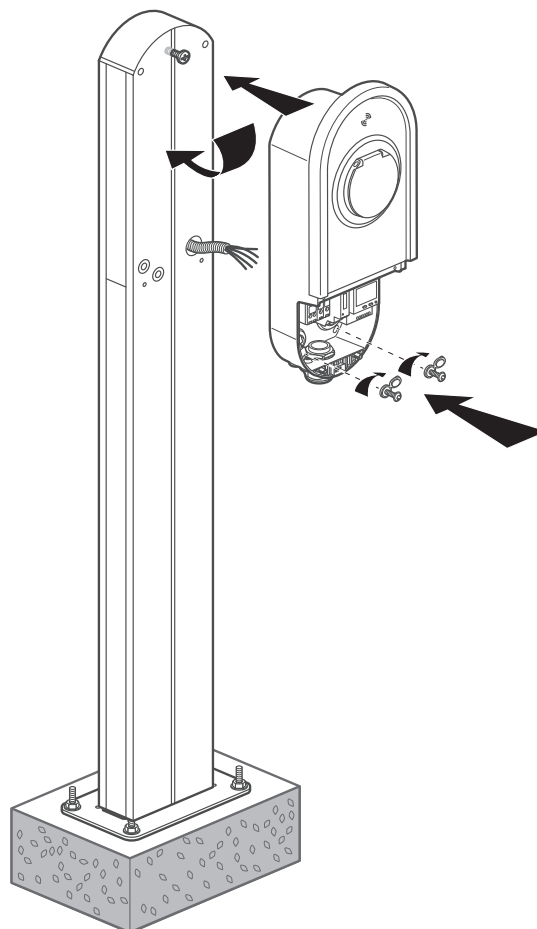
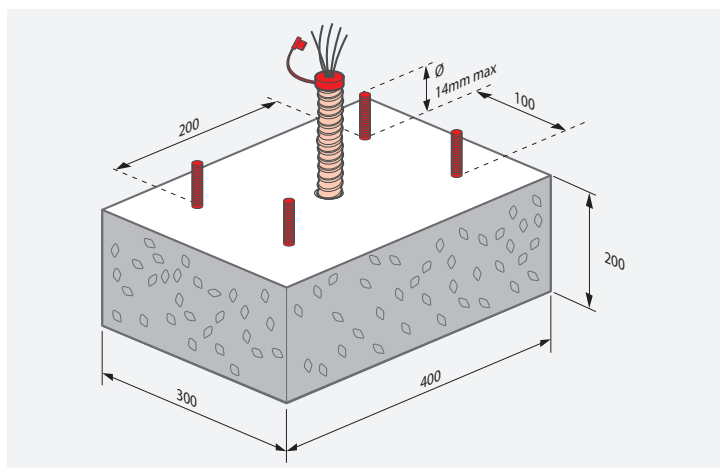
- a height between 90 cm and 1.2 m from the floor to the socket-outlet
- a minimum distance of 20 cm between the charging station and the adjacent wall



FLOOR MOUNTING ON PEDESTAL WITH CAT. NO. 0 570 18



Requires ground preparation with 4 fixed anchoring points.



CHARGING STATION INSTALLATION

Power supply connection

The Green'up Control Light EV charging station must be protected at the electrical distribution board in accordance with IEC 60364-7-722 and with the applicable local installation standards of the country concerned.

INSTALLATION STANDARD REMINDER

The main electrical standard to be complied with for residential installations and for the installation of an electric vehicle charging station is IEC 60364-7-722 (Edition 2 - 2018).

Reminder of the necessary protection devices described in standard IEC 60364-7-722, to be adapted according to the local regulations in force:

- Each connection point must be supplied by a dedicated circuit.
- Each connection point must be protected by an overcurrent protection device, such as a circuit breaker.
- Each connection point must be individually protected by a 30 mA residual current device:
 - Type A in Mode 1 or Mode 2,
 - Type B or at least Type A or Type F with a 6 mA RDC-DD(1) device for detecting residual direct currents, in Mode 3, single-phase or three-phase.

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

- A sufficient cable cross-section must be used. Recommended cable cross-sections according to the charging station current setting:
 - at 16 A, use 2.5 mm² cables,
 - at 20 A, use 4 mm² cables,
 - at 25 A, use 6 mm² cables,
 - at 32 A, use 10 mm² cables.

Warning: the values indicated are recommendations. Refer to the calculation note.

- The cable routing must be correctly installed.
- The earth resistance value must comply with the local installation regulations in force.

(1) Residual direct current detecting device.



Checking connection tightness: Before commissioning, it is recommended to check the tightening of the connections on all pre-wired parts. Vibrations during transport may alter the tightening torque applied at the factory.





Connection using aluminium cables requires a specific mandatory Al/Cu connection adapter to ensure reliable tightening and prevent the risk of overheating.

7.4 KW SINGLE-PHASE CHARGING STATIONS



It is recommended to strap the cables once wiring has been completed.

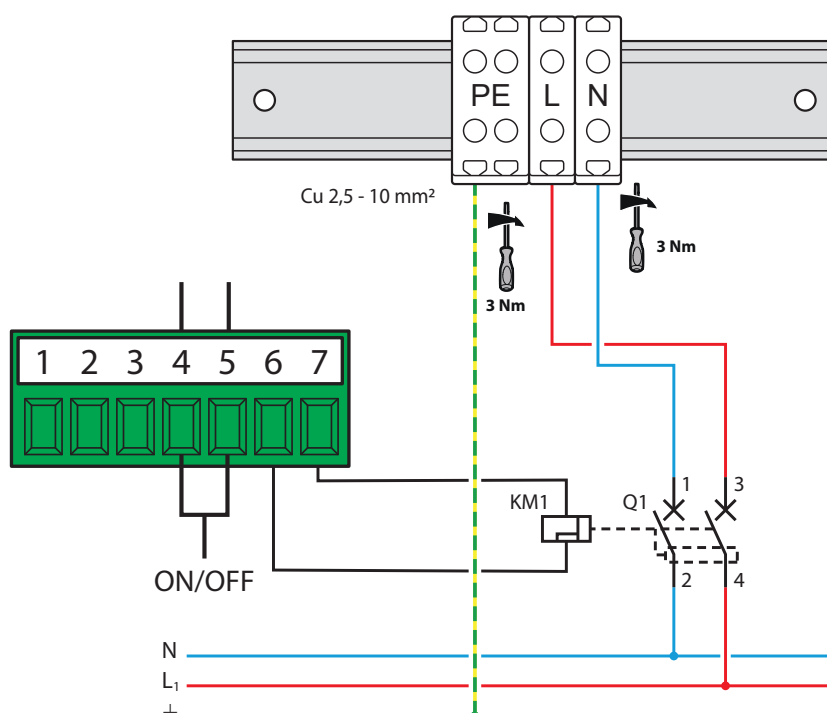
It is recommended to protect the dedicated line for the charging station(s) with a circuit breaker in the electrical distribution board.

Cat. Nos. 0 580 31/33 - 1 x Mode 3

The charging stations are supplied without protection devices. Power supply is connected to the power terminal block using a single cable only (copper only).

Cat. No. 0 580 37 - 1 x Mode 3

The charging station is supplied with protection devices, to be wired in the distribution board. Power supply is connected to the power terminal block using a single cable only (copper only).



To ensure correct phase balancing, the supply phase order of the charging station must be declared in the web interface (p. 21).



The protection devices are suitable for a maximum power of 32 A.

Warning: Cable cross-sections must be defined according to the calculation note.



CHARGING STATION INSTALLATION

Power supply connection (continued)

22 KW THREE-PHASE CHARGING STATIONS

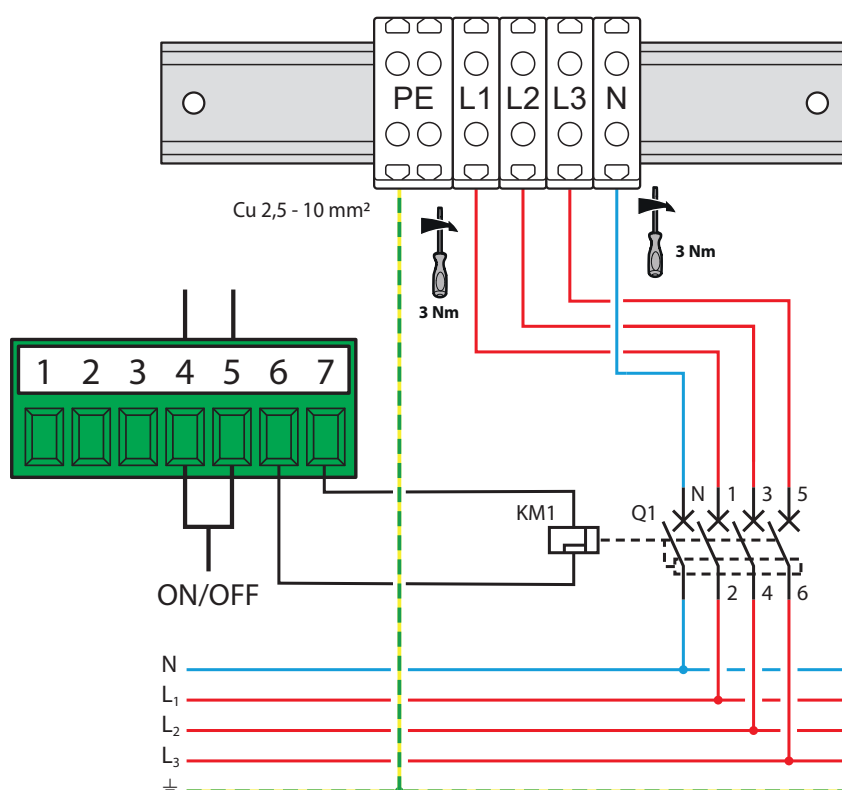
💡 It is recommended to secure the cables once wiring has been completed.

It is recommended to protect the dedicated line for the charging station(s) with a circuit breaker in the electrical distribution board (not supplied).

Cat. Nos. 0 580 32/34 - 1 x Mode 3

The charging stations are supplied without integrated protection devices.

Power supply is connected to the power terminal block using a single cable only (copper only).



⚠ To ensure correct phase balancing, the supply phase order of the charging station must be declared in the web interface (p. 21).



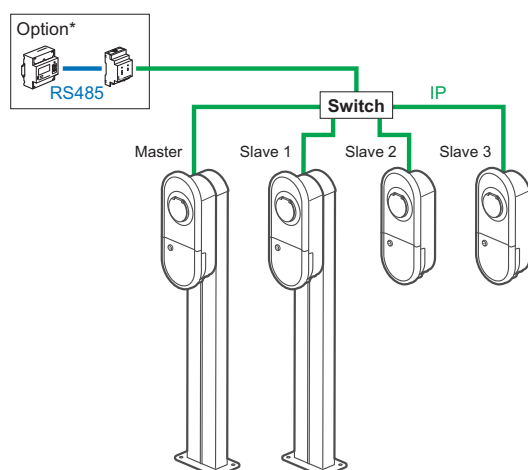
Communication connection

Supervision of Green'up Control Light charging stations is possible remotely via an Ethernet connection, which can be made by connecting to a LAN, Wi-Fi or 4G network. Once connected, it will be necessary to connect a PC in order to modify and complete the network settings used for each charging station (see page 19).

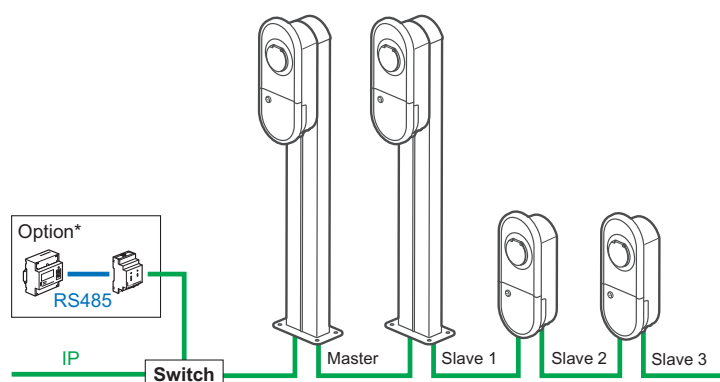
SCHEMATIC DIAGRAMS: LAN CONNECTION VIA RJ45 TO A SWITCH

2 possible connection types

Star wiring



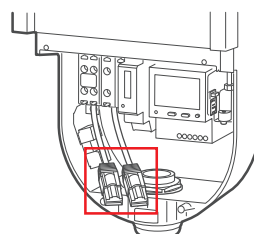
Daisy chain wiring



It is forbidden to close an Ethernet loop in daisy chain wiring.



Wiring can be carried out on either of the RJ45 ports.



CHARGING STATION INSTALLATION

Communication connection (*continued*)

SCHEMATIC DIAGRAM: WAN CONNECTION TO AN INTERNET BOX

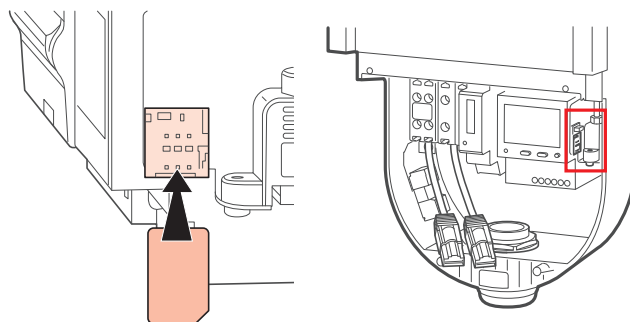


SCHEMATIC DIAGRAM: CONNECTION USING A SIM CARD FOR A CHARGE POINT OPERATOR (CPO)



i

The micro-SIM card must be inserted with the contacts facing the electronic board in the slot located on the right-hand side.



DYNAMIC LOAD MANAGEMENT (DLM) CONNECTION

Thanks to dynamic load management, Green'up Control Light charging stations adjust the available charging power in real time between several vehicles, without exceeding the set limit. This is the ideal solution for smart charging, with no risk of tripping, even in the event of high energy demand and without oversizing the electrical installation.

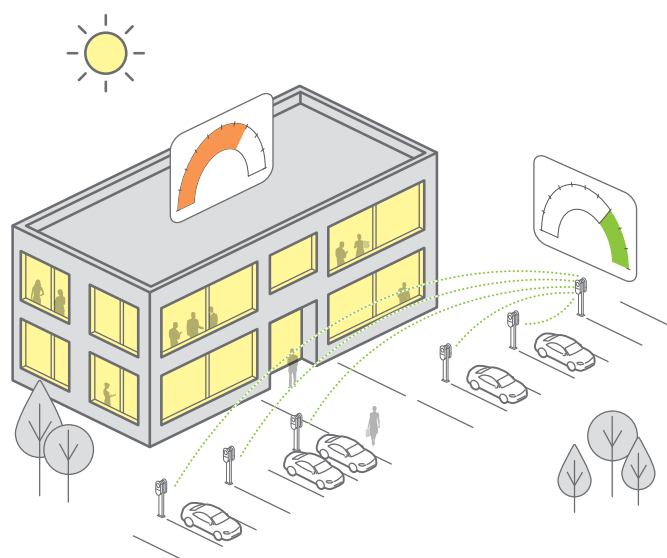
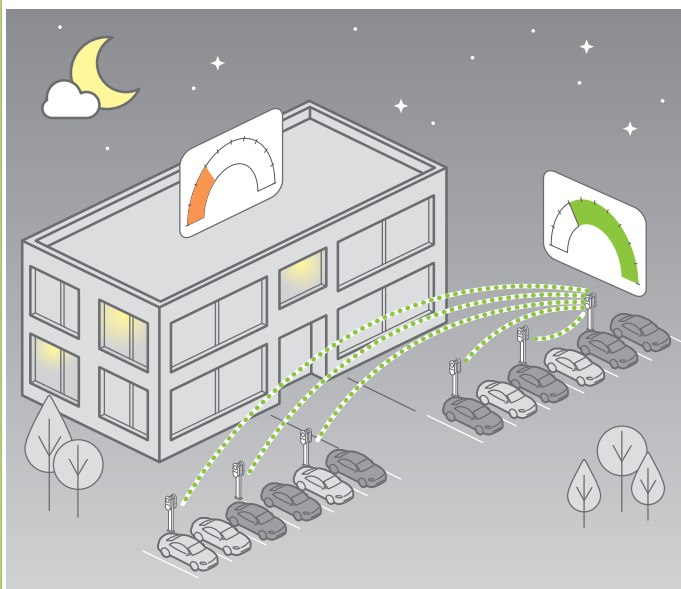
One charging station is configured as the master, while the others are configured as slaves and are connected to the same Ethernet network, with a maximum of 200 charging stations.

Dynamic load management can be carried out with or without a Charge Point Operator.

DEFINITIONS

Load management can be either static or dynamic.

- **Static load management :** The maximum power allowed for all charging stations is defined once and for all. It does not take into account the building's overall electricity consumption.
- **Dynamic load management (DLM) :** The maximum power allocated to the charging stations is adjusted in real time according to the site's electricity consumption. An external meter, not supplied, continuously measures the total load of the building and the "master" charging station adapts the charging power for each charging station.



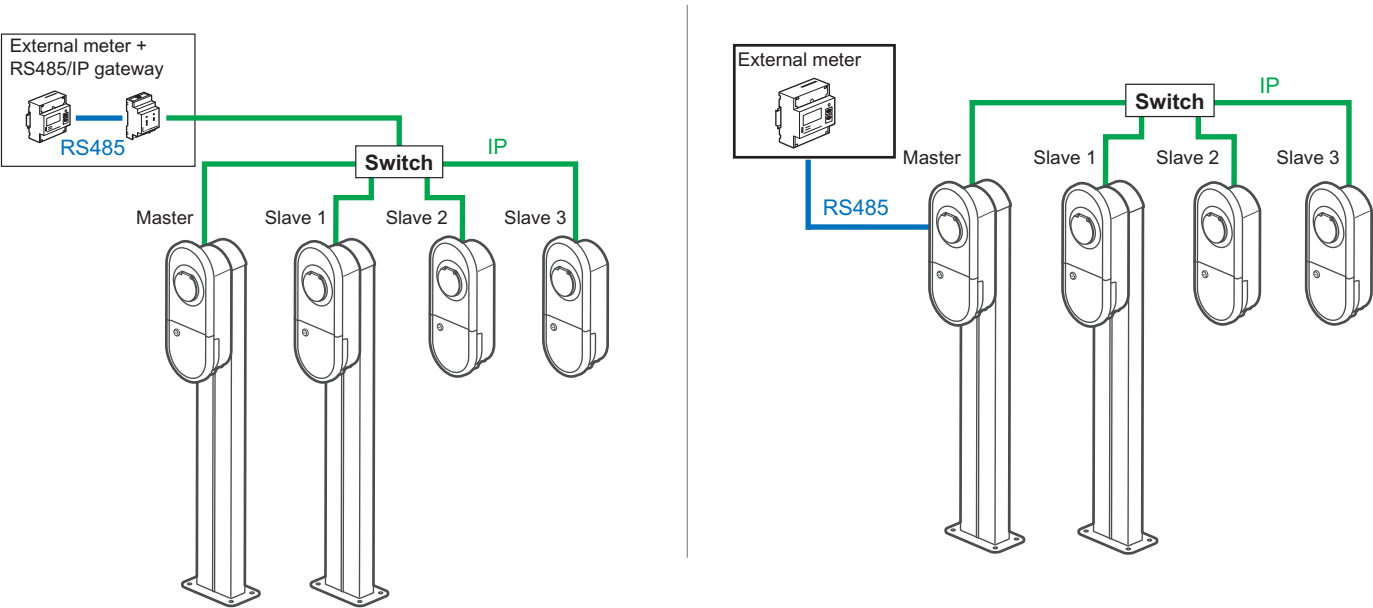
CHARGING STATION INSTALLATION

Communication connection (continued)

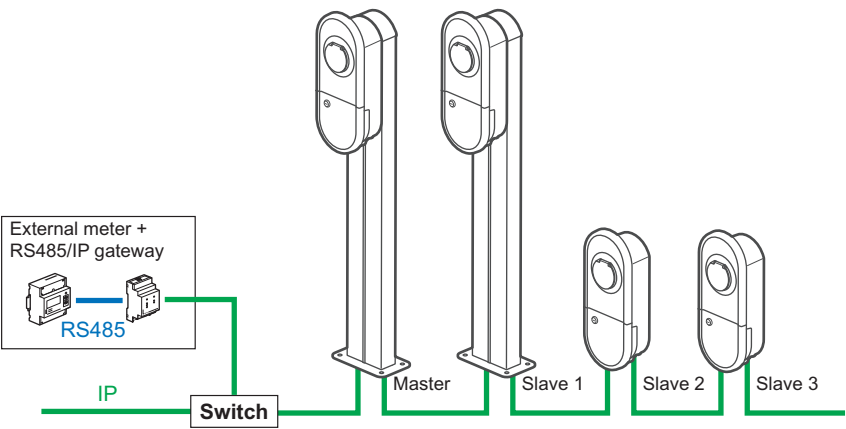


Reminder: dynamic load management requires an external meter to be ordered separately.

EXAMPLE: dynamic load management (DLM) with star connection



EXAMPLE: dynamic load management (DLM) with daisy chain connection



 It is also possible to wire an RS485 meter directly to the Master charging station.

External contact connection

EXTERNAL CONTACT OPERATION ON A CHARGING STATION

The external contact is used to control charging authorisation according to its status (open or closed). Its behaviour varies depending on whether RFID badge access management is enabled or not. Each charging point can operate differently.

- **Case 1: Access management disabled (badge reader not active or no badge registered)**

This mode is used to restrict access to the charging station during certain time slots or via an external action (time switch, automation system, etc.).

- Contact open (0 V on the input): charging is disabled.
- Contact closed (12 V on the input): charging is enabled for all vehicles.

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

This mode is used to combine badge control with global authorisation via an external command.

- Contact open (0 V on the input): charging is only authorised if a valid badge listed in the whitelist is presented.
- Contact closed (12 V on the input): charging is authorised for all vehicles, without badge control.



Behaviour when the external contact is opened (0 V):

- All ongoing charging sessions initiated by closing the contact (12 V) are immediately interrupted.
- Charging sessions initiated by presenting a badge (contact already open) are maintained. To stop them, the badge must either be presented again or the charging session must be stopped on the vehicle side.

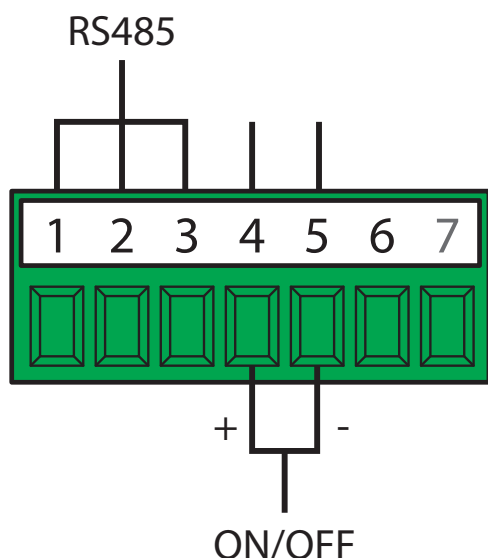
EXTERNAL CONTACT INPUT CONNECTION

The external authorisation input is connected between pins 4 and 5 of the floating green connector.

A 12 VDC power supply is required for the external contact input to operate correctly.

Each charging point has a dedicated authorisation input. Its behaviour depends on the charging mode selected.

The polarity (+/-) on inputs 4 and 5 of the terminal block must be observed.



Activation of the external contact requires specific configuration
► p.32

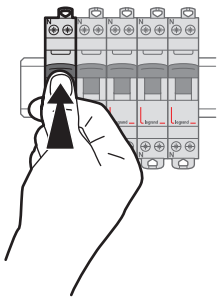


COMMISSIONING



First commissioning

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



1. Switch the protection devices ON
- general protection devices in the enclosure or cabinet



2. The charging station indicators flash in different colours before turning steady green (p. 33).
3. Configure the charging station (p. 19).
4. The charging station is ready to operate.
5. Badges can be registered via the settings (p. 26-29).



If the indicator appears red, connect to the settings via a PC (p. 19) to identify and resolve the issue.



CONFIGURATION



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

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

2 Enter the address 192.168.123.123 in the browser address bar.

A login page appears.

LOGIN

Username

Password

Login



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



3 Fill in these fields according to your profile, respecting uppercase and lowercase characters:

- | | |
|---|---|
| <ul style="list-style-type: none">▪ Installer access level: <ul style="list-style-type: none">- Username: installer- Password: blue_zone | <ul style="list-style-type: none">▪ Operator access level: <ul style="list-style-type: none">- Username: operator- Password: yellow_zone |
|---|---|



The password must be changed during the first login and within a maximum period of 30 minutes. After this time, the card will be permanently locked and become inaccessible.

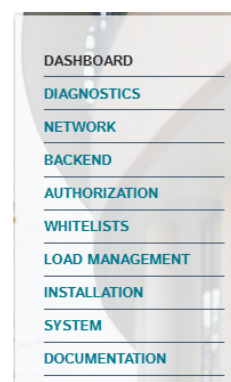
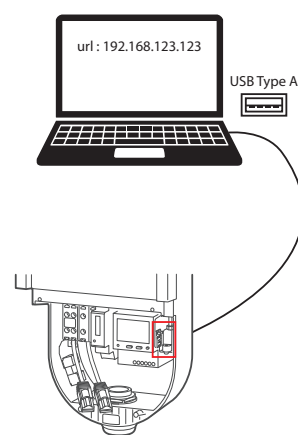
Password reset can only be carried out by the manufacturer.



It is essential to programme a backup badge as soon as the default password has been changed (see p. 25).

Once connected, an interface with a menu appears.

The different functions available in each section are listed below:



CONFIGURATION

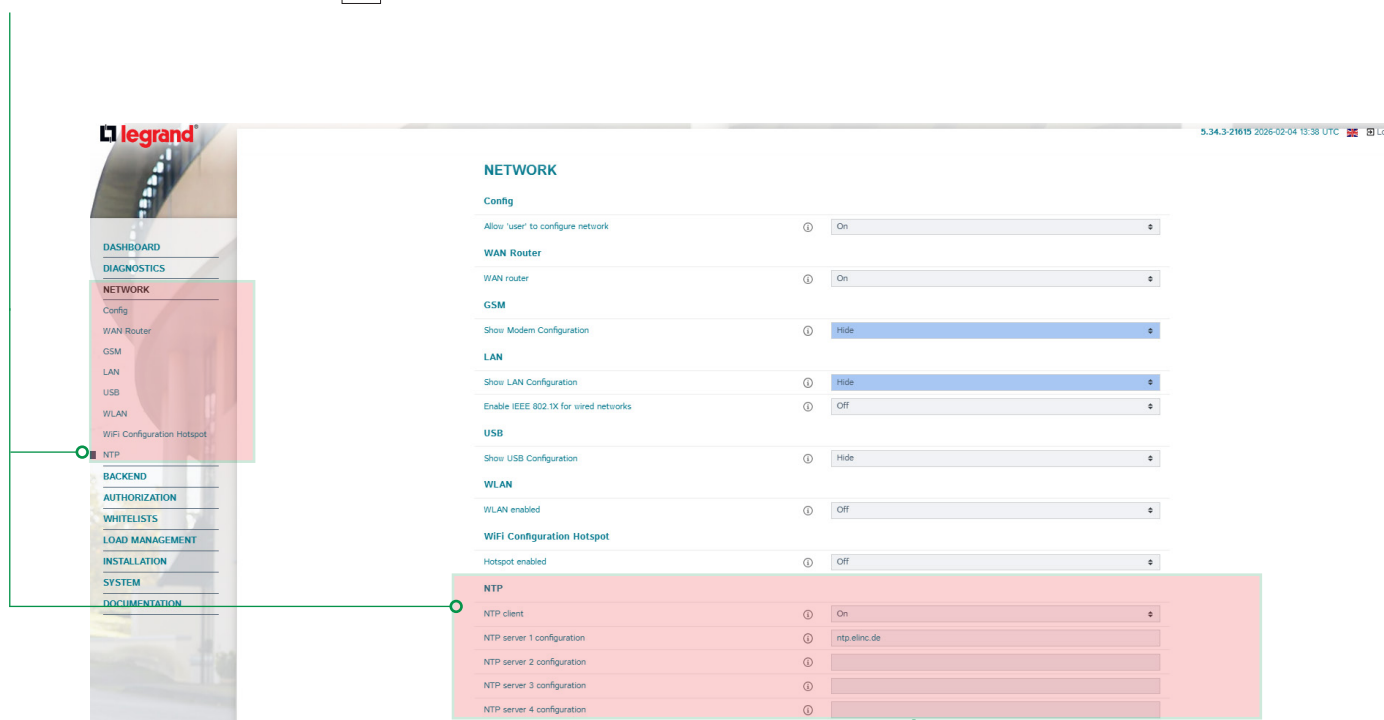
First steps

 In the following pages, the settings shown have been made using “operator” mode.
Before starting the specific charging station configuration actions, it is important to complete these setup steps.

TIME SETTING

The procedure for setting the time depends on how the charging stations are connected in the installation.

- **In OCPP:** the time is set automatically via the connection to the CPO's OCPP server.
- **Connected to an Ethernet IP network (LAN or WLAN):** in the NETWORK menu and the NTP section:
 - change 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 Light charging stations not connected to an IP or 4G Network, time synchronisation will be lost in the event of a power failure. To restore the time, either temporarily connect a PC locally or integrate the charging station into a network.



After each modification, it is recommended to save and restart if necessary.



INSTALLATION SETTINGS CONFIGURATION (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, corresponding to the supply current according to the charging station protection device.
 - Phase connected to the charging point:** Select **Single-phase system** or **Three-phase system**.
 - Charging point phase rotation:** Select the setting corresponding to the wiring.

General Installation			
Charging Station with single feed	①	On	⚙
Charging Station Installation Current Limit [A]	①	32	⚙
Phases connected to the ChargePoint	①	Single-phase system	⚙
Phases connected to the ChargePoint (Connector 2)	①	Single-phase system	⚙
Phase rotation of the ChargePoint	①	RST (L1/L2/L3, Standard Reference Phasing)	⚙
Phase rotation of the ChargePoint (Connector 2)	①	RST (L1/L2/L3, Standard Reference Phasing)	⚙
Randomize charging after power loss	①	Off	⚙
Restart transaction after power loss	①	Off	⚙
Permanently locked cable	①	Off	⚙
Permanently locked cable (Connector 2)	①	Off	⚙
HMI beep	①	On	⚙

MAXIMUM CHARGING CURRENT SETTING

- In the **DASHBOARD** menu, set the maximum current of the charging station, corresponding to the current delivered to the connector.

Start/Stop Charging
Start (Connector 1) Start (Connector 2)

79
Total Charging Sessions

43.26 min
Average duration per session

1.23 kWh
Average energy per session

Last month
0 Total number of sessions 0 kWh

Download Session Report:
Connector 1 Connector 2

Operator Current Limit [A] ① 0 6 32 32

Operator Current Limit [A] (Connector 2) ① 0 6 32 32

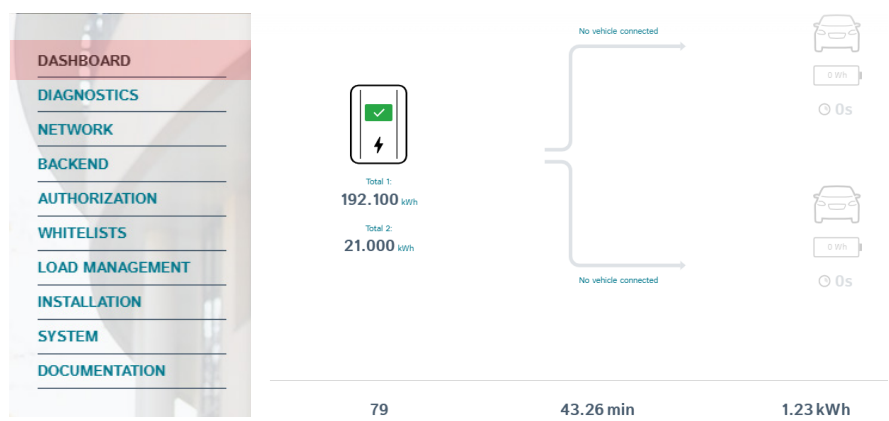
Max Time per session [h] ① No limit 24 0

Max Energy per session [kWh] ① No limit 100 0

Screen overview

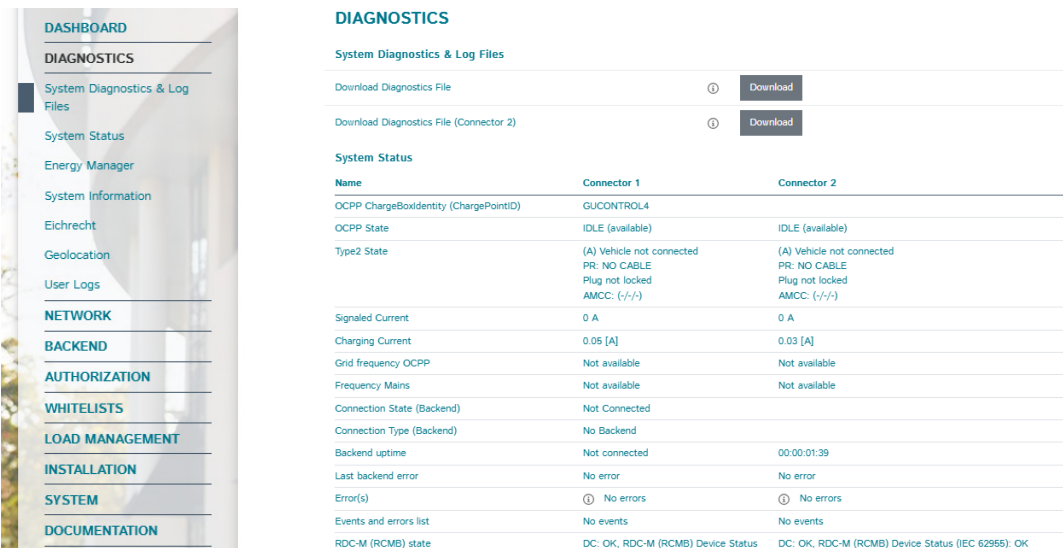
DASHBOARD: GENERAL CONSUMPTION INFORMATION

- Displays information about:
- charging status
 - charging station status (consumption in Wh, fault display, number of charging sessions, etc.)
 - charging session history (total number, duration and average consumption)
 - charging limit settings and/or maximum session time settings.

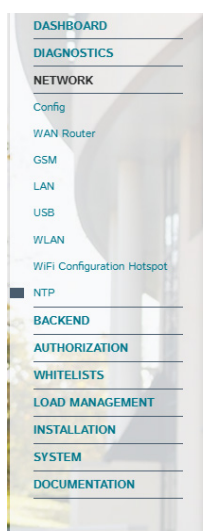


MONITORING (DIAGNOSTIC): SUMMARY OF ALL CHARGING STATION PARAMETERS

- Displays general information about 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



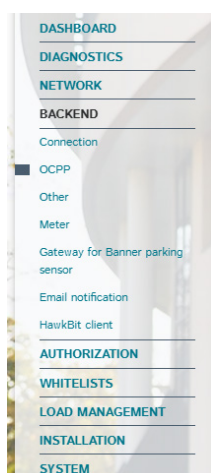
NETWORK

Config	
Allow 'user' to configure network	① On
WAN Router	
WAN router	① On
GSM	
Show Modem Configuration	① Hide
LAN	
Show LAN Configuration	① Hide
Enable IEEE 802.1X for wired networks	① Off
USB	
Show USB Configuration	① Hide
WLAN	
WLAN enabled	① Off

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

BACK-END (OCPP SERVER): CONNECTION SETTINGS (OCPP / PROXY, ETC.)

Allows the connection to Charge Point Operator (CPO) servers to be configured.

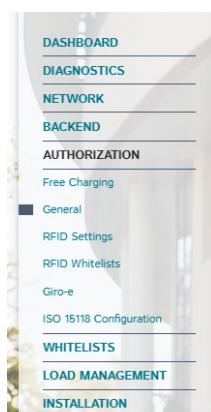


BACKEND

Connection	
Connection Type	① Ethernet
OCPP	
OCPP ChargeBoxIdentity (ChargePointID)	① GUCONTROL4
ConnectorEVSEID	①
OCPP Mode	① OCPP-J 1.6
WebSockets JSON OCPP URL of the Backend	① ws://ekh1v06slqpwokbb.remote.charge-unix.fr:9000/
Websockets proxy	①
WebSockets keep-alive interval	① 0
OCPP connection strictness	① All ciphers
HTTP Basic Authentication password	① Show
Force Heartbeat request messages	① On
Send informative StatusNotifications	① On

AUTHORIZATION: CHARGING STATION ACCESS MANAGEMENT (BADGE, UNRESTRICTED CHARGING, ETC.)

Used to manage access to charging on the charging station: activation or deactivation of the RFID reader, immediate charging, etc. To load several badges, go to the RFID Whitelists menu.



AUTHORIZATION

Free Charging	
Free Charging	① Off
If in doubt allow charging	① Off
General	
Enable charging control on the dashboard	① Off
Vehicle connection timeout after authorization [s]	① 45
Send Authorize for RemoteStart	① On
Stop Transaction Mode	① Normal
Lock Actuator only if authorized	① Off
RFID Settings	



To add/delete a badge, see p. 26-29.



Screen overview (continued)

WHITELISTS: BADGE MANAGEMENT

Allows RFID badges to be managed: add or delete a badge, import or export a badge list.
When connected via OCPP, the badges in this list have priority over the back-end.

DASHBOARD

DIAGNOSTICS

NETWORK

BACKEND

AUTHORIZATION

WHITELISTS

Local Whitelist

OCPP Whitelist

LOAD MANAGEMENT

INSTALLATION

SYSTEM

DOCUMENTATION

WHITELISTS

Local Whitelist

Search for...

Add entry

Import list

Export list

Delete whole list

Id	Number	Name	Type	
042C08627A7580			RFID	 
INPUT_AUTH			SPECIAL	

OCPP Whitelist

The OCPP whitelist is not enabled yet. Set "Enable OCPP whitelist" to "On".

 Badge management use case: see pages 26-29.

LOAD MANAGEMENT: CURRENT SETTINGS, POWER, ETC.

Allows the load management section to be configured:

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

DASHBOARD

DIAGNOSTICS

NETWORK

BACKEND

AUTHORIZATION

WHITELISTS

LOAD MANAGEMENT

Local

Modbus Interface

SEMP interface (SMA Sunny Home Manager)

EEBus

Dynamic Load Management

ASKI over OCPP-S

INSTALLATION

SYSTEM

DOCUMENTATION

LOAD MANAGEMENT

Local

Operator Current Limit [A]		32
Operator Current Limit [A] (Connector 2)		32
Max Energy per session [kWh]		0
Max Time per session [h]		0
Energy management from external input (Connector 2)		Disable 
Enable Offline Current Limit for OCPP SmartCharging		Off 
Enable Offline Current Limit for OCPP SmartCharging (Connector 2)		Off 
Delete all Smart Charging profiles		Delete all

Modbus Interface

Modbus TCP Server for energy management systems		Off 
---	---	---

SEMP interface (SMA Sunny Home Manager)

SEMP interface		Off 
----------------	---	---

EEBus

EEBus interface		Off 
-----------------	---	---



SYSTEM: SYSTEM SETTINGS CONFIGURATION

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

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

To create a recovery badge, the following steps must be followed:

- In the **SYSTEM** menu:
 - click on Modify the operator password;
 - enter the new password and confirm it;
 - present the RFID recovery badge in front of the reader.
- The code is automatically entered in the cell;
- save.

If the password is forgotten during a future login, it will then be possible to reset a new password by presenting this badge in front of the charging station.

CONFIGURATION

USE CASE WITHOUT SUPERVISION

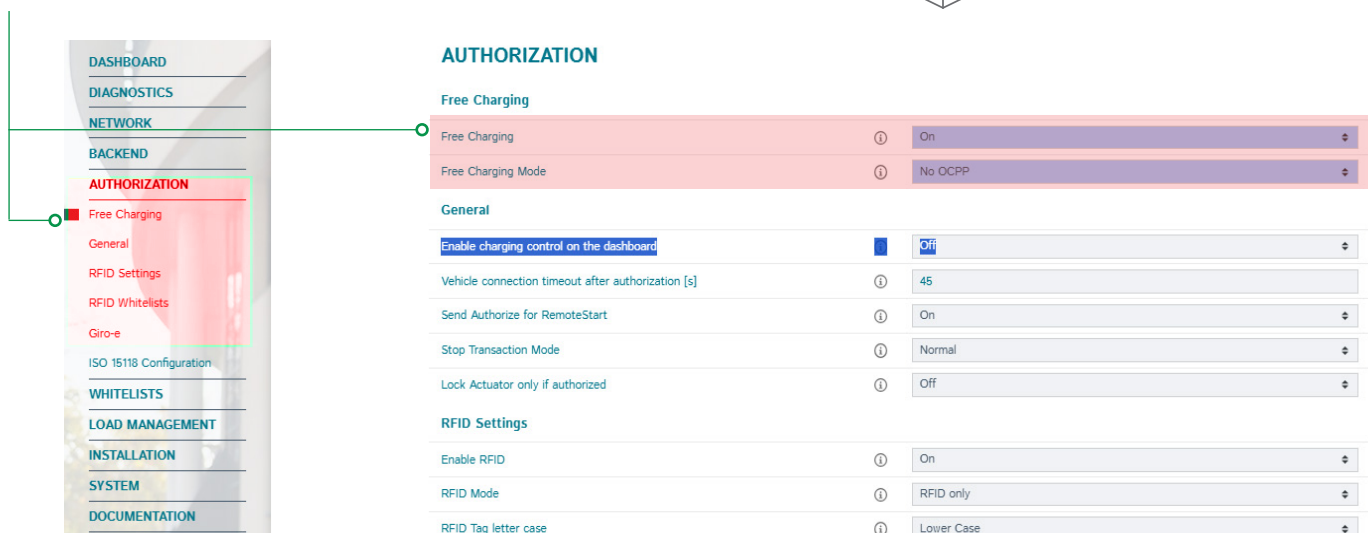
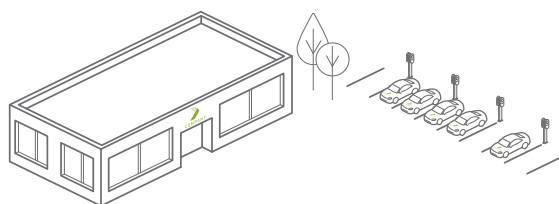
 To carry out these operations, your connection must be made in "operator" or "installer" mode.

Configuring the charging station for unrestricted charging (immediate charging without badge)

Allows unrestricted access to charging without authorisation management.

In the **AUTHORIZATION** menu:

- set the Unrestricted charging field to **On**
- set the Unrestricted charging mode field to **No OCPP**



The screenshot shows the configuration interface. On the left is a sidebar menu with the following items: DASHBOARD, DIAGNOSTICS, NETWORK, BACKEND, AUTHORIZATION (highlighted in red), Free Charging (highlighted in red), General, RFID Settings, RFID Whitelists, Giro-e, ISO 15118 Configuration, WHITELISTS, LOAD MANAGEMENT, INSTALLATION, SYSTEM, and DOCUMENTATION. A green line connects the 'Free Charging' item in the sidebar to the 'Free Charging' section of the main configuration area.

The main configuration area is titled **AUTHORIZATION** and contains the following settings:

Free Charging	
Free Charging	☒ On
Free Charging Mode	☒ No OCPP

General

Enable charging control on the dashboard	☒ Off
Vehicle connection timeout after authorization [s]	45
Send Authorize for RemoteStart	☒ On
Stop Transaction Mode	Normal
Lock Actuator only if authorized	☒ Off

RFID Settings

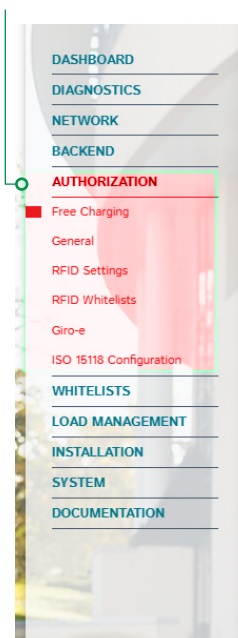
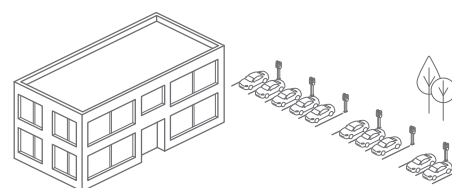
Enable RFID	☒ On
RFID Mode	RFID only
RFID Tag letter case	Lower Case



Configuring the charging station with access management (badges)

Allows access to charging with authorisation management (RFID badges).

- In the **AUTHORIZATION** menu:
 - set the **Unrestricted charging** field to **Off/Disabled**
 - set the **Enable RFID** field to **On**
 - set the **Enable local whitelist** field to **On**
 - set the **Enable OCPP whitelist** field to **Off/Disabled**



AUTHORIZATION

Free Charging

Free Charging	Off
If in doubt allow charging	Off

General

Enable charging control on the dashboard	Off
Vehicle connection timeout after authorization [s]	45
Send Authorize for RemoteStart	On
Stop Transaction Mode	Normal
Lock Actuator only if authorized	Off

RFID Settings

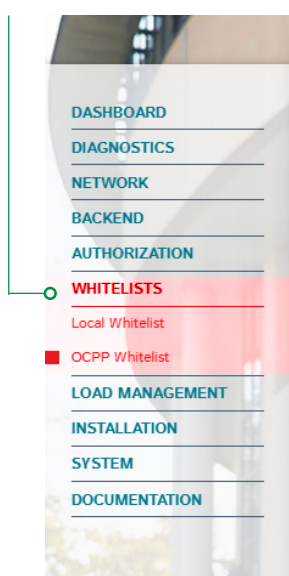
Enable RFID	On
RFID Mode	RFID only
RFID Tag letter case	Lower Case
Enforce Master RFID	Off
Enforce using Secure RFID	Off
Language of Display	Multi-Language EN-DE-FR-NL

RFID Whitelists

Enable local whitelist	On
Enable OCPP whitelist	Off

TO ADD BADGES USING A LIST

- In the **LOCAL WHITELIST** menu, configure the badges:
 - to add 1 badge: click **Add an entry**
 - to add several badges: click **Import a list**
- Complete the file according to the required format: ID, badge number, user name (example: 7AC72513, 2, Durant), then import the file by clicking **Import a list**.



WHITELISTS

Local Whitelist

Search for... **Add entry** **Import list** **Export list** **Delete whole list**

Id	Number	Name	Type
042C08627A7580			RFID
INPUT_AUTH			SPECIAL

OCPP Whitelist

The OCPP whitelist is not enabled yet. Set "Enable OCPP whitelist" to "On".

! In the case of dynamic load management (DLM), all badges included in the whitelist of the Slave charging stations must be registered in the whitelist of the Master charging station.



CONFIGURATION

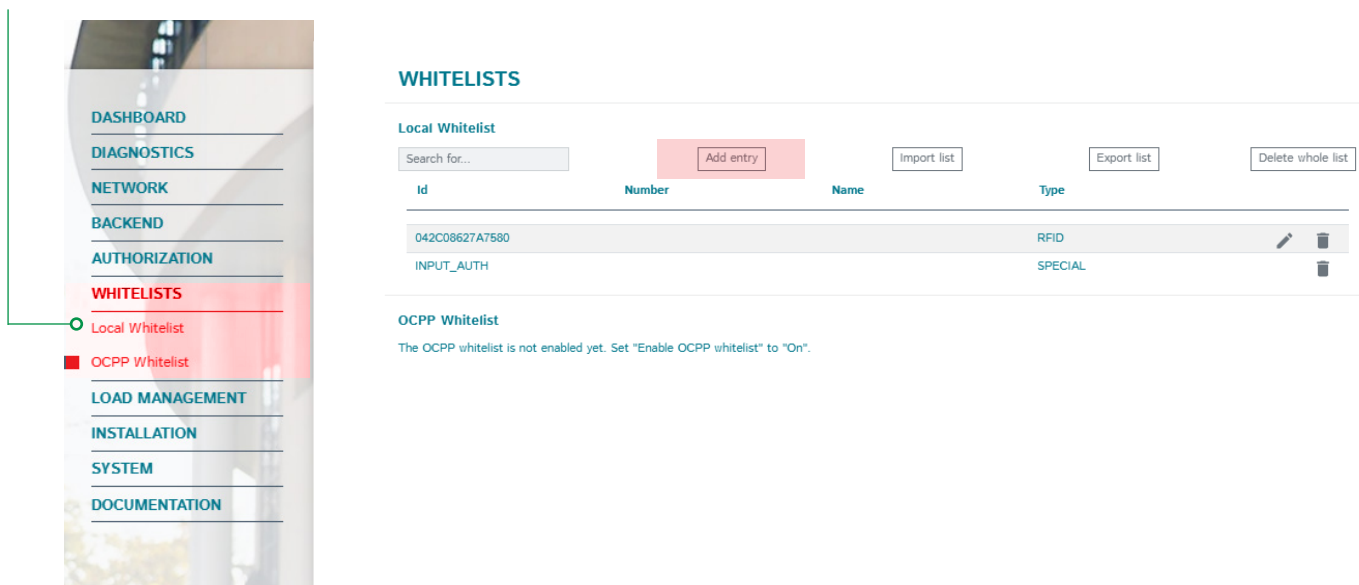
USE CASE WITHOUT SUPERVISION

 To carry out these operations, your connection must be made in "operator" or "installer" mode.

Configuring the charging station with access management (badges) - (continued)

TO ADD A BADGE USING THE CHARGING STATION READER

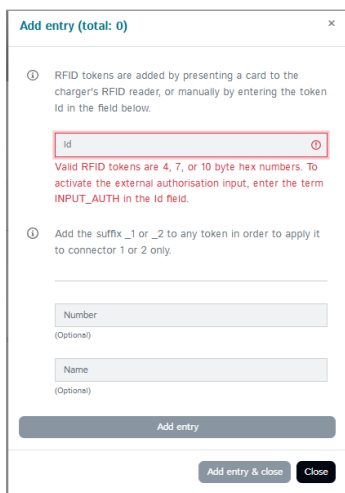
- In the **WHITELISTS** menu:
- to add 1 badge: click **Add an entry**



The screenshot shows the 'WHITELISTS' menu on the left, with 'Local Whitelist' selected. The main area displays the 'Local Whitelist' table with columns: Id, Number, Name, and Type. The table contains two entries: '042C08627A7580' (RFID) and 'INPUT_AUTH' (SPECIAL). The 'Add entry' button is highlighted in red. Below the table, the 'OCPP Whitelist' section is visible, indicating it is not enabled yet.

Id	Number	Name	Type
042C08627A7580			RFID
INPUT_AUTH			SPECIAL

A window opens :



The 'Add entry (total: 0)' dialog box contains the following fields and instructions:

- Id**: A text input field with a red border and a red error icon. Below it, a red message states: "Valid RFID tokens are 4, 7, or 10 byte hex numbers. To activate the external authorisation input, enter the term INPUT_AUTH in the Id field."
- Number**: An optional text input field.
- Name**: An optional text input field.
- Add entry**: A button at the bottom.
- Add entry & close** and **Close**: Buttons at the bottom right.



- Present the badge to be added in front of the RFID reader.

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

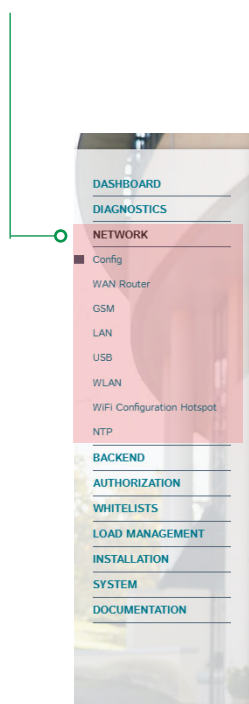
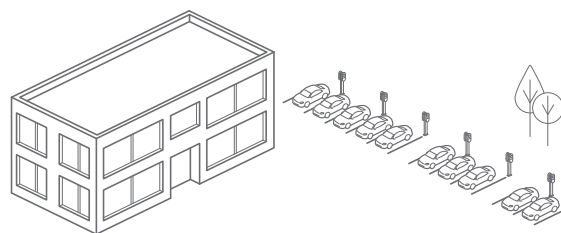
To finalise this single registration: click **Add entry and close.**

To add another badge: click **Add entry.**

Configuring LAN or WLAN IP addresses for local network connection

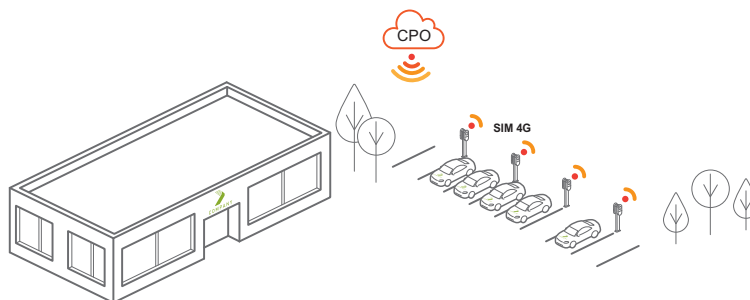
This allows the charging stations to be connected to a local IP network.

- In the **NETWORK** menu:
- set the Display LAN configuration field to Display
- enter the IP addresses



CONFIGURATION

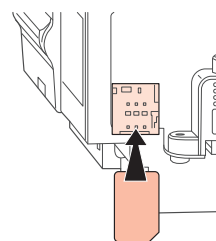
USE CASE WITH CPO



Configuring CPO-operated mode

This allows the charging station to be connected to a Charge Point Operator (CPO) via the integrated 4G router.

- Insert the SIM card into the slot dedicated.
- In the NETWORK menu, in the GSM section:
 - set the Display modem configuration field to **Display**
 - enter the APN field code using the SIM card code
 - fill in the other fields if necessary
 - save



NETWORK

Config

Allow 'user' to configure network ☐ On

WAN Router

WAN router ☐ On

GSM

Show Modem Configuration ☐ Show

Access Point Name (APN)

APN Username

APN Password Show

SIM PIN Show

Network selection mode Auto

Modem Access Technology Auto

Requested Network operator

Network operator name format Alphanumeric Short

MTU

LAN

Show LAN Configuration ☐ Hide

Enable IEEE 802.1X for wired networks ☐ Off



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.



- In the **Back-End** menu, fill in the following fields:
- **Connection type**: select the appropriate connection mode (GSM, Ethernet, WLAN, etc.).
- **OCPP chargeBoxIdentity**: connection UID for the OCPP server.
- **OCPP URL**: enter the URL of the Charge Point Operator (CPO) OCPP server.

BACKEND

Connection	
Connection Type	GSM
OCPP	
OCPP ChargeBoxIdentity (ChargePointID)	GUCONTROL4
ConnectorEVSEID	
OCPP Mode	OCPP-J 1.6
WebSockets /JSON OCPP URL of the Backend	
WebSockets proxy	
WebSockets keep-alive interval	0
OCPP connection strictness	All ciphers
HTTP Basic Authentication password	 Show
Force Heartbeat request messages	On
Send informative StatusNotifications	On
Send error StatusNotifications	On
Send USB error StatusNotifications	Off
Strategy for StatusNotification state transitions	Occupied on Charging
Enable longer OCPP configuration key values	Off
Integer values for boolean get configuration keys	Off
Disallow charging if OCPP queue full	Off

CONFIGURATION

EXTERNAL CONTACT SETTINGS

CONFIGURATION

By default, operation of the external contact authorisation input is disabled.
To enable it:

- In the **AUTHORIZATION** menu, in the **Unrestricted charging** section:
 - set the **Unrestricted charging** field to **Off**
 - set the **If in doubt, authorise 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**

AUTHORIZATION

Free Charging

Free Charging	Off
If in doubt allow charging	On

General

Enable charging control on the dashboard	Off
Vehicle connection timeout after authorization [s]	45
Send Authorize for RemoteStart	On
Stop Transaction Mode	Normal
Lock Actuator only if authorized	Off

RFID Settings



The charging station must be restarted to validate this configuration.

- In the **WHITELIST** menu:
 - click **Add an entry**, then create an **INPUT_AUTH** entry in the charging station's local whitelist.

 When charging is performed using this entry, the dashboard will indicate "Input" for the registered badge (p. 28)

① RFID tokens are added by presenting a card to the charger's RFID reader, or manually by entering the token Id in the field below.

✓

① Add the suffix _1 or _2 to any token in order to apply it to connector 1 or 2 only.

(Optional)

(Optional)

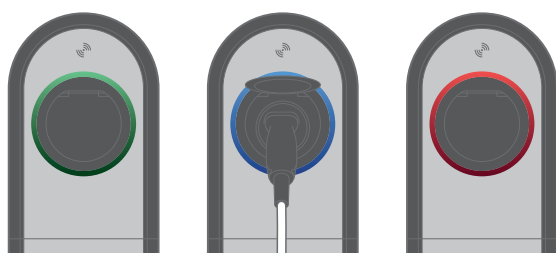
Add entry



Indicator lights on the charging station

Once the Green'up Control Light charging station has been configured, the functional indicator lights are green and blue, either steady or flashing.

If the indicator light on the front panel is red, a fault is present.



	Ready for charging
	RFID reading, authorisation in progress
	Charging authorisation refused (steady for 3 sec.)
	Authorisation accepted, charging authorised
	Charging cable connection
	Vehicle connected, charging has not started
	Charging in progress
	Error

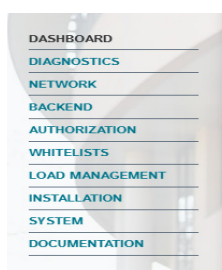
Error table

Below are some possible faults and the actions to be carried out to resolve them.

FAULT	CAUSE	SOLUTIONS / STEPS TO FOLLOW
Steady/flashing red indicator light.	Installation fault.	Disconnect the vehicle and restart the charging station. Switch off the power at the protection device, wait until the indicator lights go out (this may take a few seconds), then power the circuit back on. If the fault persists, contact Customer Service.
Indicator light off.	No power supply.	Check the status of the residual current device. Check the status of the charging station protection circuit breaker. Switch the power supply ON. If the fault persists, contact Customer Service.
Vehicle connected, but the indicator light is green or red. Charging does not start.	The cable is incorrectly connected. Electrical fault. RFID badge not recognised.	Check the cable connection on the charging station and on the vehicle (disconnect and reconnect until charging starts). Check the electrical characteristics of your installation (voltage, earth resistance, etc.). Present a registered badge again in front of the reader located on the front display of the charging station.
The charging station does not charge at maximum power.	Maximum vehicle charging power reached. Maximum charging station power configured.	Check the charging power accepted by the vehicle (on-board charger power). The vehicle may limit the power drawn. Check the maximum power in the settings. Warning: check that the protection devices comply with the recommendations (p. 10-12).
The cable is locked in the charging station although charging is not in progress (Type 2 Mode 3 side).		Stop charging from the vehicle. Switch off the power at the protection device, wait until the indicator lights go out (this may take a few seconds), then power the circuit back on. If the problem persists, contact Customer Service.



The Dashboard menu provides access to information about faults currently being detected, making it easier to diagnose and identify anomalies.



► p. 22



MAINTENANCE



Maintenance plan

During use, your charging station may be exposed to various factors such as very low or very high temperature variations, surges, a corrosive environment, pollution, humidity, animals, salt mist, etc., as well as wear of operating components such as relays, connectors, etc.

Carrying out the recommended maintenance operations at regular intervals will ensure that the charging station operates under optimal conditions and will maximise its service life.

Maintenance operations on electric vehicle charging stations must be carried out by qualified, trained and authorised personnel, in accordance with the rules in force in each country.

The indicated frequency depends on the actual environment, such as extreme temperatures, high dust levels, dirty environments, corrosive atmospheres, significant vibrations and intensive use.

In more severe operating and environmental conditions than normal, maintenance of the charging station must be carried out more frequently.



OPERATIONS	FREQUENCY	POWER OFF	IN SERVICE (OPERATION)
1/5 - GENERAL MAINTENANCE			
External cleaning	6 months ⁽¹⁾	X	
Check that there are no foreign objects inside the charging station	Annually ⁽¹⁾	X	
Internal cleaning (dust removal by vacuuming)	Annually ⁽¹⁾	X	
Visual check of the integrity of the earthing connections	Annually ⁽¹⁾	X	
Visual check for the absence of moisture inside and outside the charging station (condensation)	Annually ⁽¹⁾	X	
Check the integrity of the charging station	Annually ⁽¹⁾		X
Check that the identification and operating procedure stickers are present	Annually ⁽¹⁾		X
2/5 - MECHANICAL CHECKS			
Check that the socket shutters operate correctly	Annually ⁽¹⁾		X
Check the tightening torques of the conductors, terminals and assembly screws	On commissioning/ 2 months after commissioning/ Then annually	X	
Lubricate the sockets (perfluorinated lubricant grease, Lubrilog Fluolog MG 2 type)	Annually ⁽¹⁾	X	
3/5 - ELECTRICAL CHECKS			
Check the earthing of the charging station ⁽²⁾	On commissioning		X
Visual check of cable integrity	Annually ⁽¹⁾		X
Check the integrated 6 mA protection	Annually ⁽¹⁾		X
Measure electrical values: phase-to-neutral and phase-to-phase voltage, frequency, etc. - inputs/outputs	Annually ⁽¹⁾		X
4/5 - FUNCTIONAL CHECKS			
Visual check and operation of auxiliaries	Annually ⁽¹⁾		X
Use a charging simulator	Annually ⁽¹⁾		X
Type 2S socket locking motor	Annually ⁽¹⁾		X
5/5 - OTHER			
Check the charging station firmware version (available in the online catalogue)	6 months ⁽¹⁾		X

(1) To be adjusted according to installation and usage conditions.

(2) Some vehicles require an earth resistance of < 30 ohms.





legrandgroup.com



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