OCPP

Open Charge Point Protocol

ACTIVATION GUIDE
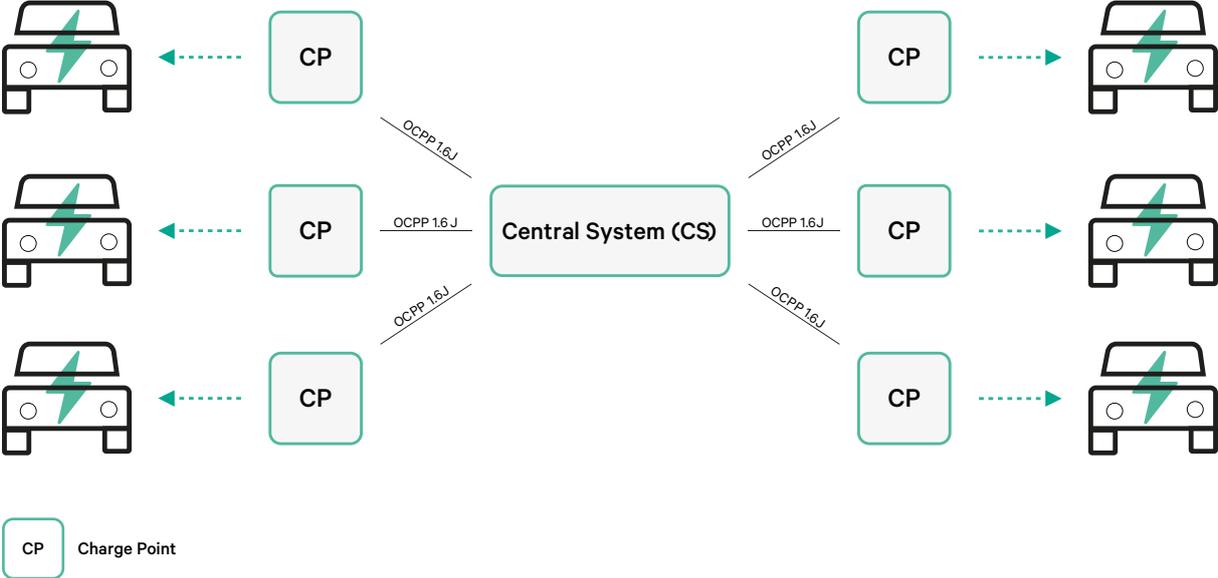ENGLISH
V2.0

wallbox

Contents

Overview

The OCPP is a standard and open protocol for communication between Charge Points and a Central System where a Charge Point Operator can, among others, monitor the status of the Charge Points, authorize who is allowed to charge or perform remote actions like to stop an ongoing transaction.

| CP | Charge Point |

Terms and conventions

Acronym	Model
CP	The Charge Point is the physical system where an electric vehicle can be charged.
CPO	The Charge Point Operator manages a set of CPs using a Central System.
CS	The Central System that manages Charge Points and has the information for authorizing users for using its Charge Points.
OCPP	Open Charge Point Protocol.
VPN	"Virtual Private Network"

References

[Open Charge Point Protocol 1.6 edition 2]

Part Number Activation

OCPP is only available in:

- Chargers with OCPP selected in the "version" section of the part number.

Charger	Model	Cable	EVC	Power	Version	Custom	Revision
Copper SB	CP B1	S - Socket W - Socket w/ shutter	2 - Type 2	3 - 11 kW 4 - 22 kW	8 - Residual Current Detection (DC 6 mA) + RFID + OCPP	-	-
Pulsar Plus	PL P1	0 - 5 m M - 7 m	1 - Type 1 2 - Type 2	2 - 7,4 kW 3 - 11 kW 4 - 22 kW	9 - Residual Current Detection (DC 6 mA) + OCPP F - Earthing Protection (UK) + Residual Current Detection (DC 6 mA) + OCPP	-	-
Pulsar Plus NA	PUP1	U - 25 ft	1 - Type 1	5 - 9.6 kW 6 - 11.5 kW	C- Hardwired + OCPP G - NEMA 14-50P +OCPP	002-Black	-
Commander 2	CM X2	0 - 5 m M - 7 m	1 - Type 1 2 - Type 2	2 - 7,4 kW 3 - 11 kW 4 - 22 kW	8 - Residual Current Detection (DC 6 mA) + RFID + OCPP	-	-

You can know more about OCPP at:

https://support.wallbox.com/en/article-categories/faqs-copper-sb/
https://support.wallbox.com/en/article-categories/faqs-pulsar-plus/
https://support.wallbox.com/na/knowledge-base/datasheets-pulsar-plus/
https://support.wallbox.com/en/article-categories/faqs-commander-2/

Charge Point Setup

To achieve the OCPP connection between the Charge Point and the Central System, the Charge Point administrator shall set up the network connection and the OCPP parameters using myWallbox App or Portal.

Wallbox is NOT responsible for any unexpected performance of the Central System if it has failed to successfully pass the Factory Acceptance Test between both parties.

If the Central System has failed to pass the Factory Acceptance Test, please contact: sales@wallbox.com

myWallbox Account

You can find all the instructions to use myWallbox App or Portal at:
https://support.wallbox.com/article-categories/mywallbox/

Network Connection

To establish a connection between the Charge Point and the Central System it is necessary to connect the Charge Point to the network using one of the available connection methods.

- Ethernet (where available)
- Mobile Connectivity (where available)
- Wi-Fi

You can find all the instructions at:

	Ethernet	Mobile Connectivity	Wi-Fi
Pulsar Plus	✕	✕	HERE
Pulsar Plus NA	✕	✕	HERE
Copper SB	HERE	HERE	HERE
Commander 2	HERE	HERE	HERE

OCPP Parameters setup

Wallbox App

To complete the OCPP setup using myWallbox App perform the following steps:
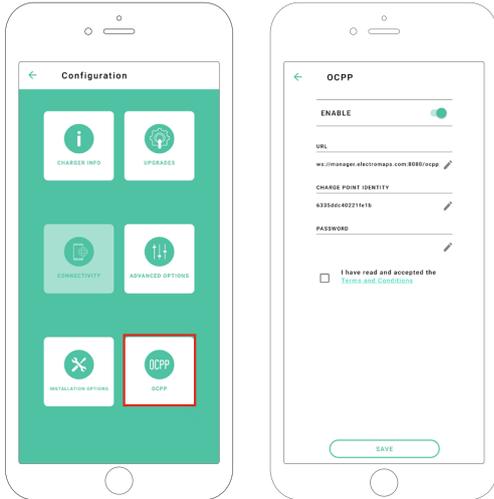
1. Log in to the myWallbox App.

The Wallbox app is available on PlayStore and AppStore.

2. Add the charger to your account.

3. Access to the charger's screen.

4. Select the required charger and ensure it's connected to the network. Review the manuals to do it if needed.

5. Enter the charger status screen and click the configuration ⚙ button.

6. Go into the OCPP configuration menu.

> **Note:** If the charger is not compatible with OCPP, the OCPP button will not be displayed.

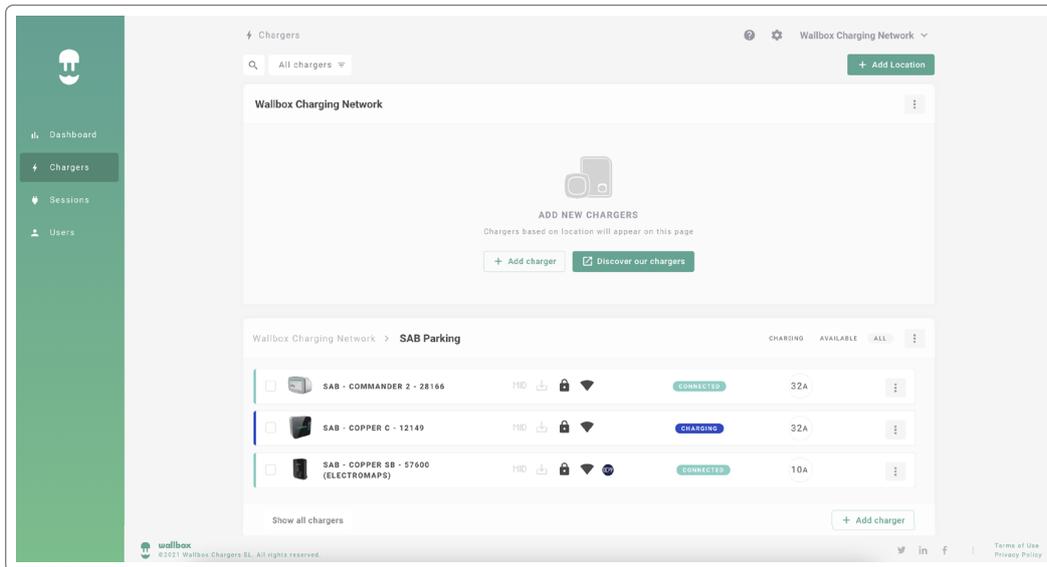**7.** Set the OCPP parameters and press the "SAVE" button.

- Enable: On / Off switch
- URL: Central System connection endpoint (required field)
- Charge Point Identity: Charge point ID (required field)
- Accept the terms and conditions (required field)

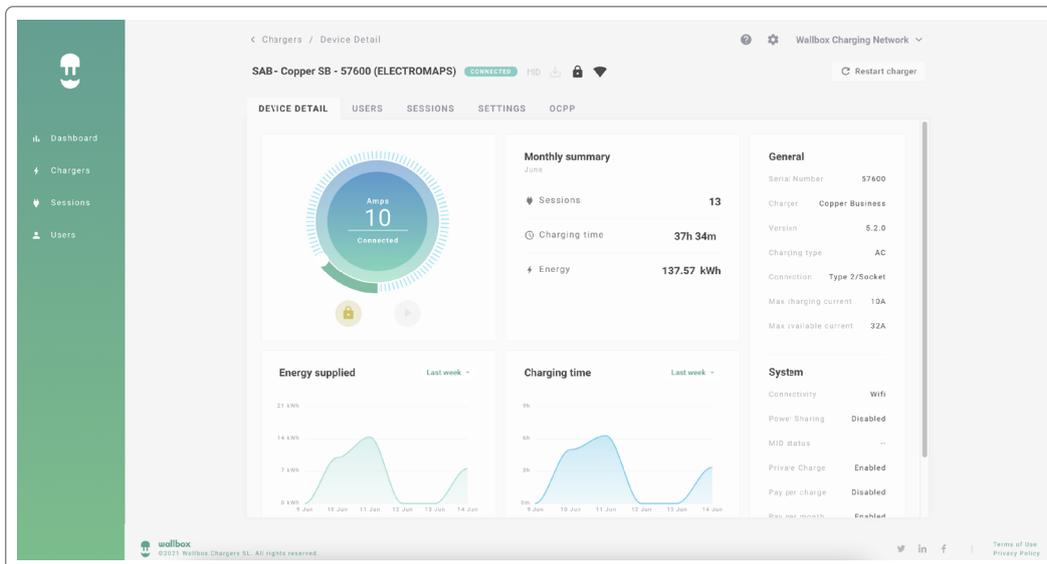> **Note:** The charger will automatically reboot and new configuration will be applied.

myWallbox Portal

To complete the OCPP setup using myWallbox portal perform the following steps:

1. Log in to the myWallbox portal and access the charger's page.

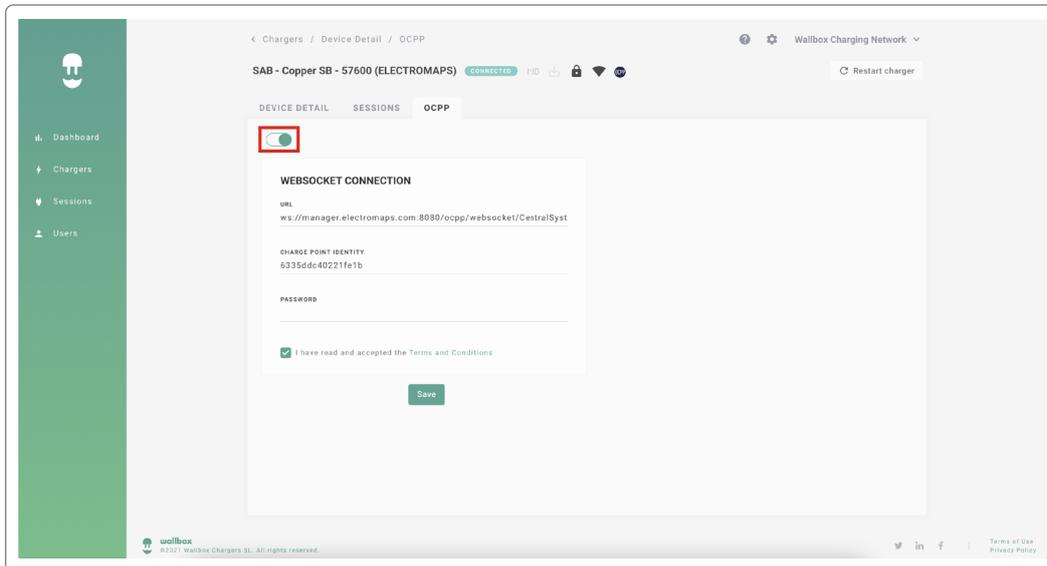**2.** Select the required charger and ensure it's connected to the network.

3. Enter the charger status page and click the OCPP tab.

> **Note:** If the charger is not compatible with OCPP, the OCPP tab will not be displayed.

myWallbox Portal

4. Set the OCPP parameters and press the "SAVE" button.

- Enable: On / Off switch
- URL: Central System connection endpoint (required field)
- Charge Point Identity: Charge point ID (required field)
- Accept the terms and conditions (required field)

> **Note:** The charger will automatically reboot and new configuration will be applied.

OCPP Connection Status

The status of the OCPP connection between the charger and the Central System is shown in myWallbox App and Portal as:

OCPP The OCPP is activated and the charger is connecting to the Central System.

OCPP The charger is connected through OCPP to the Central System.

OCPP The Charge Point can not establish the connection with the Central System.
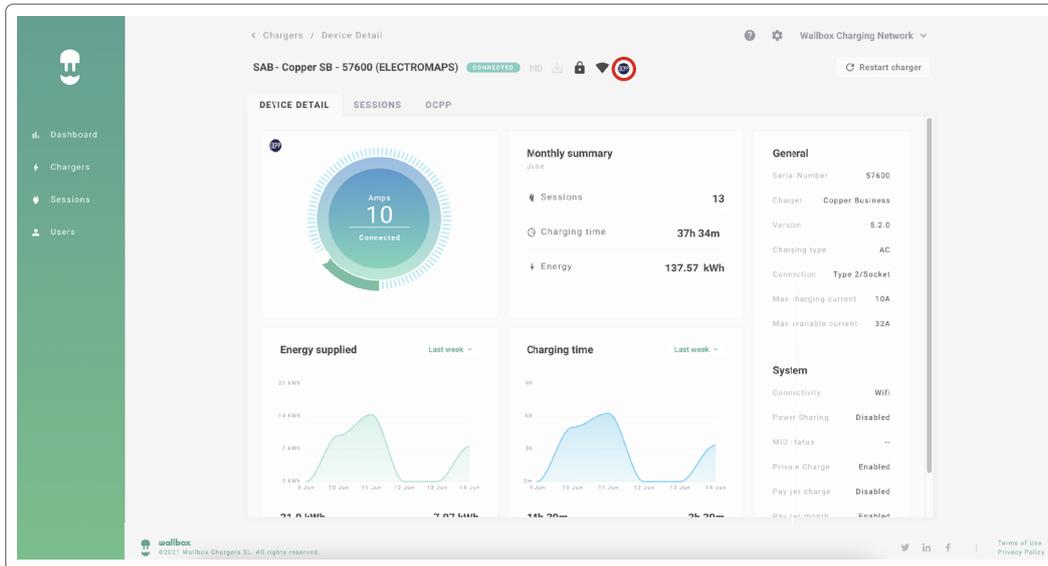
myWallbox App

OCPP Connecting   *OCPP Connected*   *OCPP Connection Error*

myWallbox Portal

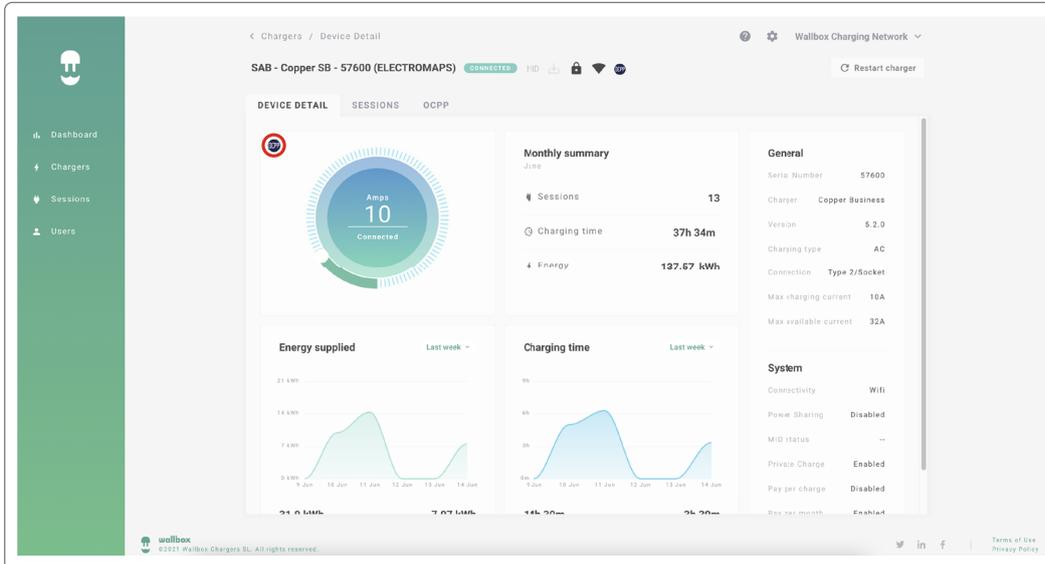Chargers' List

1. OCPP Connecting.

| | | SAB - COPPER SB - 57600 (ELECTROMAPS) | MID | | 🔒 | ▼ | OCPP | CONNECTED | 10A | ⋮ |

2. OCPP Connected.

| | | SAB - COPPER SB - 57600 (ELECTROMAPS) | MID | | 🔒 | ▼ | OCPP | CONNECTED | 10A | ⋮ |

3. OCPP Connection Error.

| | | SAB - COPPER SB - 57600 (ELECTROMAPS) | MID | | 🔒 | ▼ | OCPP | CONNECTED | 10A | ⋮ |

myWallbox Portal

Chargers' Details

1. OCPP Connected.

2. OCPP Connecting.

3. OCPP Connection Error.

HMI

1. OCPP is connected.

2. OCPP is connecting.

3. Screen OCPP can not establish the connection with the Central System.

OCPP Functionalities

Copper SB, Pulsar Plus, Pulsar Plus NA and Commander 2 implement the beneath OCPP 1.6j Core profile functions as described in the "OCPP 1.6 Edition 2" specification:

- Core profile
- Local Authorization managment
- Remote firmware update

- Remote trigger
- Smart charging

How to use the charger

Copper SB (top left):
- LED
- RFID
- SOCKET OUTLET

Pulsar Plus (top right):
- LED
- BODY
- FRONT COVER

Commander 2 (bottom left):
- INTERNET CONNECTION
- STATUS SCREEN
- MENU BAR
- LOCK
- CLOCK
- RGB LED
- CURRENT USER
- NOTIFICATION AREA

(bottom right):
- BODY
- RFID READER
- TOUCHSCREEN
- FRONT COVER

Action	Copper SB	Pulsar Plus	Commander 2
Charge point will be locked while available.	🟡	🟡	🟡
Show your authorized RFID card to the RFID reader or unlock the charger with the CPO App.	📇 /App	App	📇 /App
Once authorized, the charger will unlock.	⚪	🟢	
Connect your EV charging cable to the Charge Point.	🟢	N/A	N/A
Connect your EV cable to the EV.	🔵	🔵	🔵
Charge process will start.	🔵	🔵	🔵
Use the same RFID card, or the CPO App, to stop the charging process.	🔵	🔵	🔵
Disconnect your EV cable from the Charge Point and from the EV.	🟡	🟡	🟡

Notes: Other procedures could be defined by your Charge Point Operator.
Mifare UID shall be introduced in Central System's authorization whitelist as little-endian and no separators.

OCPP and myWallbox

To keep aligned with the OCPP specification, some Wallbox functionalities are not available when OCPP is enabled. Non-conflicting functionalities will always remain available at myWallbox App and Portal.

myWallbox cloud will continue gathering all the information regarding the Charge Point status and usage for a faster and better after sales service as well as managing the remote updates of the Charge Point.

Wallbox functionalities not available when OCPP is enabled:

Some of the myWallbox functionalities will still be available when OCPP is activated. They can be performed by the Charge Point Operator (CPO) though the myWallbox App or Portal:

- Charger status monitoring
- Anonymous charging sessions
- Set Power Sharing
- Set Power Boost
- Set MID Meter
- Set the current limit
- Update the charger software
- Restart (charger reboot)
- Restore (factory conditions)
- Set charging schedules
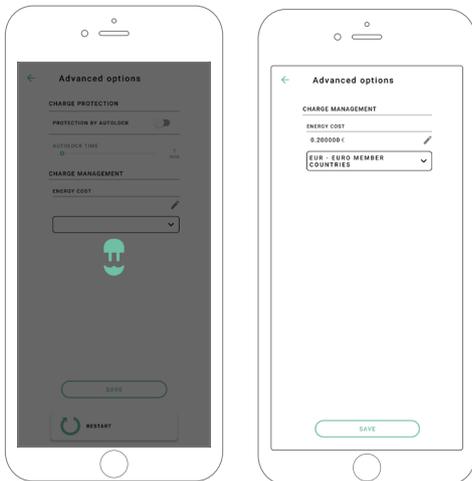- Set TN/TT Ground system

Note: These features will not be available if the network connection is in a VPN.

Note: Wallbox functionalities will remain available according to your myWallbox plan: "Basic", "Standard" and "Business".

myWallbox App
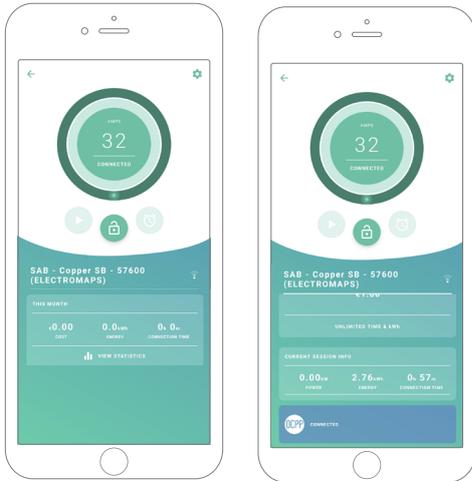
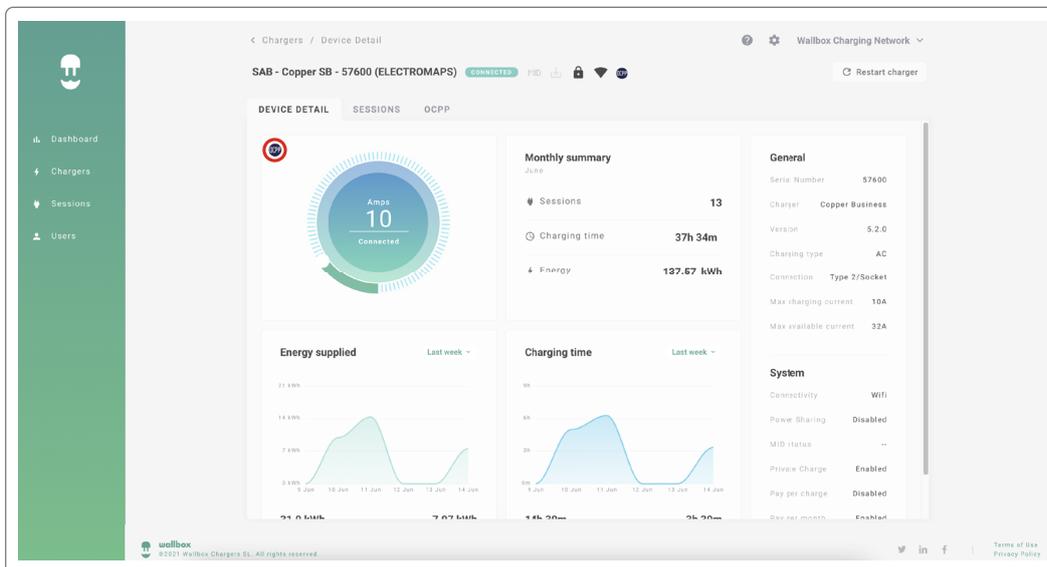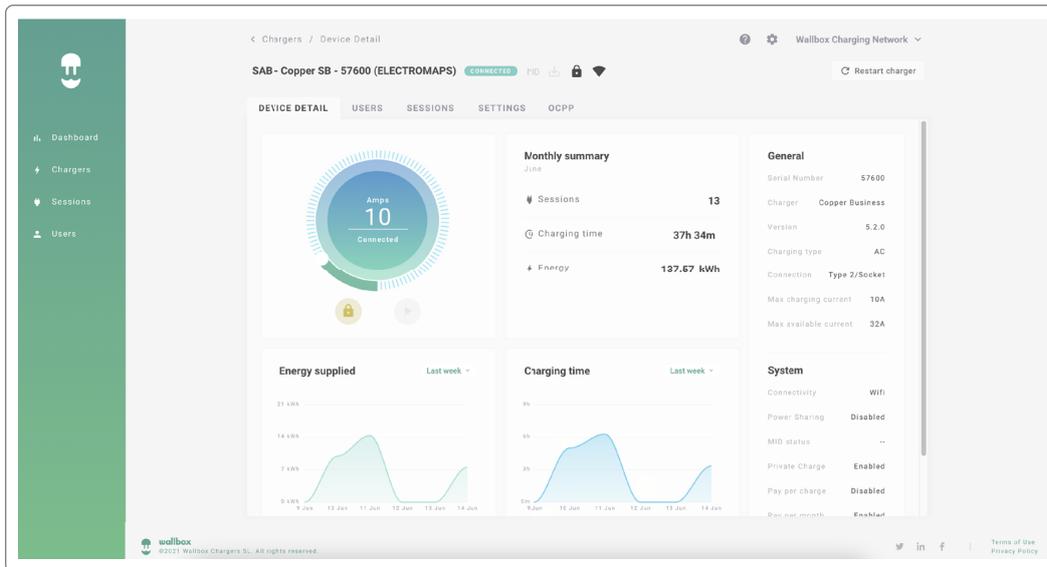**1.** The charger status screens for OCPP not activated and activated

2. Advanced options setup

OCPP and myWallbox functionalities Compatibility

myWallbox Portal

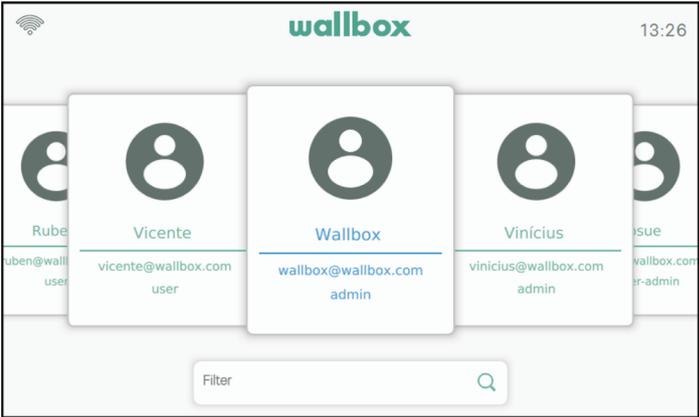**1.** The charger status screens for OCPP not activated and activated

Find frequently asked questions at: https://support.wallbox.com/article-tags/faqs/

OCPP and myWallbox functionalities Compatibility

HMI

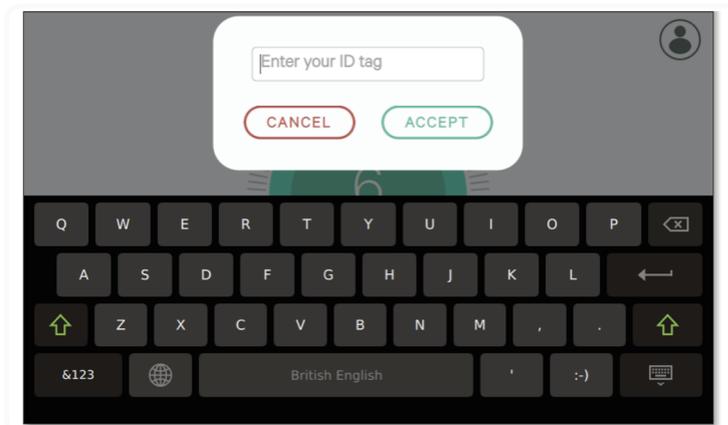**1.** The HMI behaviour when OCPP is disabled.

OCPP and myWallbox functionalities Compatibility

HMI

2. The HMI behaviour when OCPP is enabled. The end-user will be able to unlock the charger by:

- Using the RFID
- Introducing the PIN code by clicking on the User icon

AuthEnabled

Whenever the Charge Point Operator has set the AuthEnabled in the Central System, then the charger will not need authorization any longer, so the identification through RFID card or PIN (Commander 2 only) is disabled. By connecting the EV gun, the charger will start charging according to the car demand.

When the AuthEnabled is set to True then LED / Halo: Yellow while the status is "available".

Connection to myWallbox in a VPN scenario

In order to keep all myWallbox features available in a VPN scenario, including among others remote diagnostics and remote software updates, the CPO SHALL allow charger connection to myWallbox Cloud by opening:

- Domains: *.wall-box.com
- Ports: 443 and 80
- Access: Outbound

Troubleshooting

OCPP connection status remains in "Connecting"

Check network connection status and OCPP parameters setup.

I can not start a new charge

Check OCPP connection status, RFID authorization and Charge Point availability with your Charge Point Operator.

I can not unlock the charger with the RFID card

Check the RFID code. When OCPP is active RFID UID are read as little-endian, hexadecimal, no separators.

Service

Need more assistance? You can reach out to us:

België/Belgique	France	Norge	Schweiz/Suisse
+32 2 808 88 28	+33 1 76 46 09 15	+47 51 74 20 00	+41 43 508 06 75
Danmark	Ireland	Portugal	Sverige
+45 89 87 87 15	+353 14 854 347	+351 308 801 440	+46 852503203
Deutschland	Italia	Österreich	United Kingdom
+49 69 96759775	+39 011 1962 2461	+43 720882116	+44 20 3318 3779
España	Nederland		
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