



**CIRCONTROL**  
*Mobility & eMobility*

# Wallbox eVolve Series

Installation Manual







# Here's your guide to install eVolve.

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# Wallbox eVolve Series Installation Manual

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# So, hello!

This manual provides commissioning information about Wallbox eVolve, which has been designed and tested to allow electric vehicle charging, specified in IEC 61851.

This document has different sections such as step-by-step installation procedure and technical data.

## THE FOLLOWING SYMBOLS ARE USED FOR IMPORTANT SAFETY INFORMATION IN THIS DOCUMENT



### **ELECTRIC RISK**

Take precautions to make the electrical connection inside the unit.

Unit must be disconnected from any power source during commissioning.



### **ATTENTION!**

Indicates that the damage to property can occur if appropriate precautions are not taken

- Complies with IEC 61851, Electric vehicle conductive charging system (IEC 61851-1 and IEC 61851-22).
- Complies with IEC 62196, Plugs, socket-outlets, vehicle couplers and vehicle inlets (IEC 62196-1 and IEC 62196-2).
- Standards: 2014/35/UE, LVD;2014/30/UE, EMC.
- RFID complies with ISO 14443A/B

## 2

### IMPORTANT SAFETY INSTRUCTIONS



Read carefully all the instructions before starting in order to ensure proper installation of the charge point.

The charge point is designed for installation in indoor and outdoor areas. For each of the different conditions of installation, the unit must be installed safely and ensure adequate protection.

- Charge point must not be installed in areas where there is potential risk of explosions.
- Do not install the charge point where falling objects may damage the equipment.
- The surface where the charge point is placed must withstand the mechanical forces.
- Do not use this unit for anything other than electric vehicle charging modes are expected in IEC 61851.
- Do not modify this unit. If modified, CIRCONTROL will reject all responsibility and the warranty will be void.
- Comply strictly with electrical safety regulations according to your country.
- Do not make repairs or manipulations with the unit energised.
- Only trained and qualified personnel should have access to low-voltage electrical parts inside the unit.
- Check the installation annually by qualified technician.
- Remove from service any item that has a fault that could be dangerous for users (broken plugs, caps that don't close...).
- Use only Circontrol supplied spare parts.
- Do not use this product if the enclosure or the EV connector is broken, cracked, open, or shows any other indication of damage.

**Refer to TECHNICAL DATA section for more information about environmental installation conditions.**

# Before the installation

## ELECTRICAL WIRING CONSIDERATIONS



Take into consideration this section before start wiring connections of the charge point.

### 1 – CHARGE POINT – INPUT POWER SUPPLY

Charge point may not include elements of electrical protection.

The input power supply line must be hardwired from a distribution board to the charge point under electrical safety regulations according to your country regulations.

### 2 – POWER SUPPLY LINE DIMENSIONING

The dimensioning of the input power supply line of the charge point must be checked by a qualified electrician. Note that various factors such as cable length between distribution board and charge point, maximum output current of the charge point may have influence of the selected cable.

In such cases, increasing the cable cross-section it is required to adapt the temperature resistance of the power supply line.

### 3 – CHARGE POINT – MAXIMUM CURRENT OUTPUT

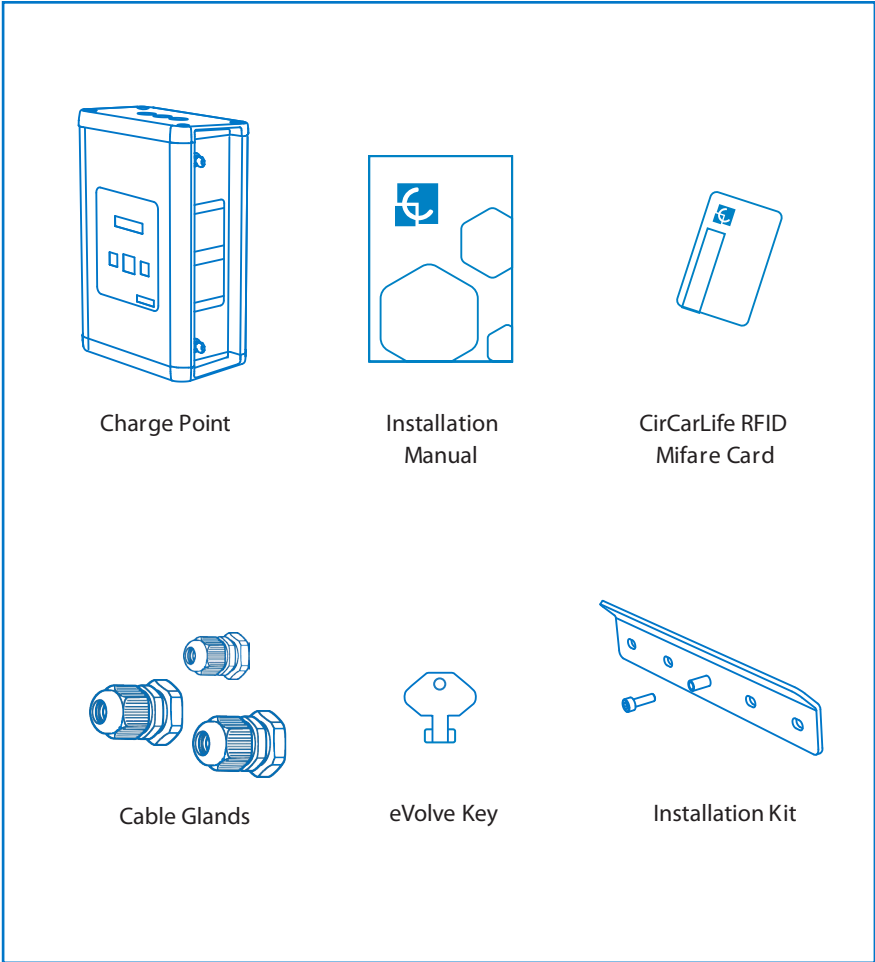
Please refer to the TECHNICAL DATA section to consult the default factory settings from maximum output current of the charge point.

If the power supply is less than maximum output current and adjustment to a lower nominal current needs to be performed, please refer to the INSTRUCTION MANUAL.

**Depending of the model this value may vary.**

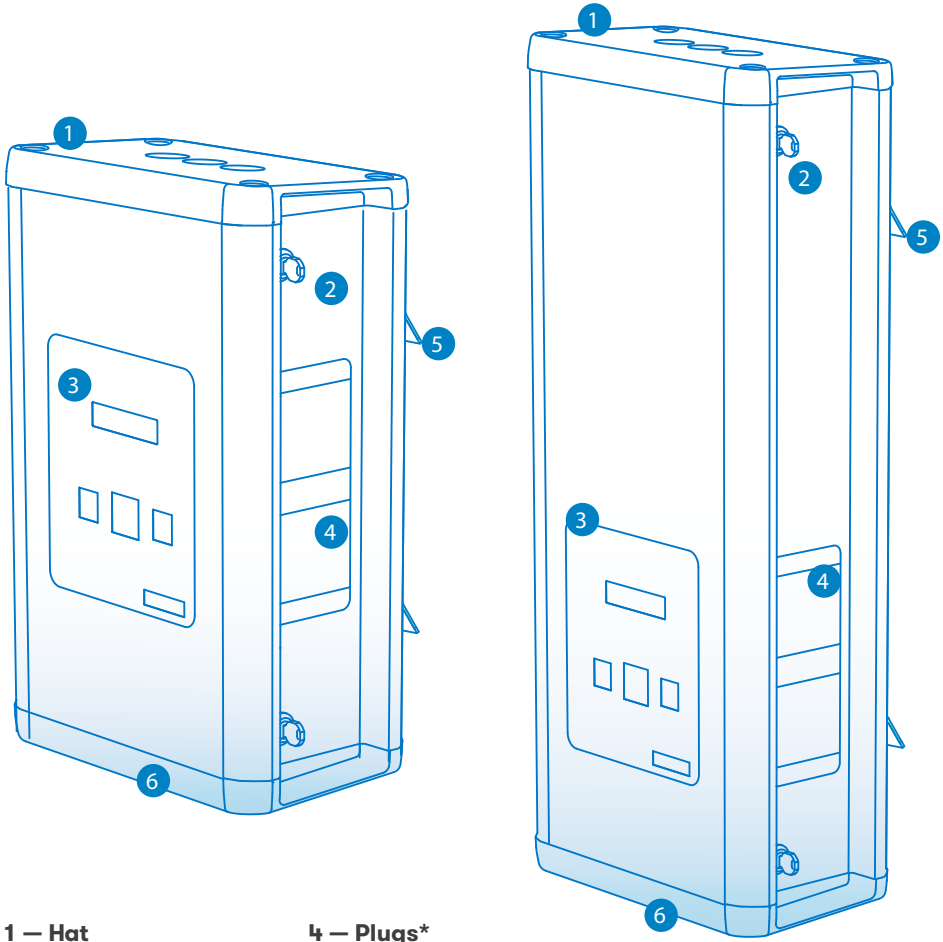
# 3

What's included:





# Overview



**1 – Hat**

**2 – Key lock access**

**3 – Display & RFID  
Reader**

**4 – Plugs\***

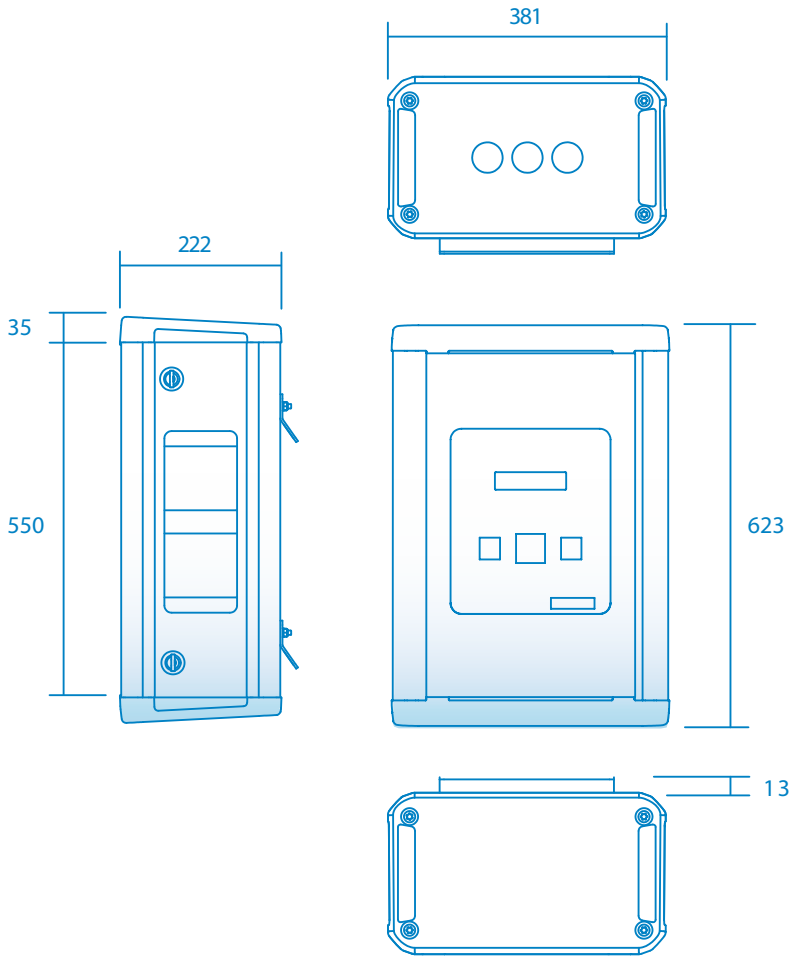
**5 – Wall support**

**6 – Base**

(\*) Plugs may vary depending on the model

4

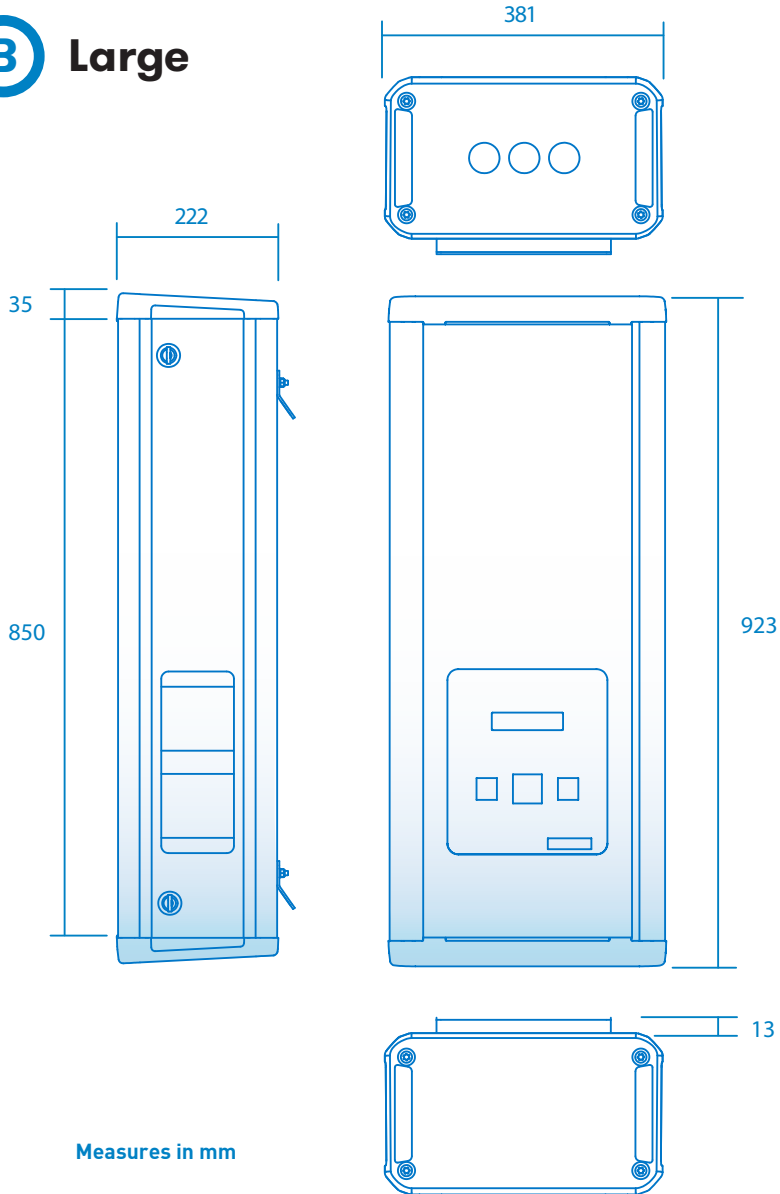
A Small



Measures in mm

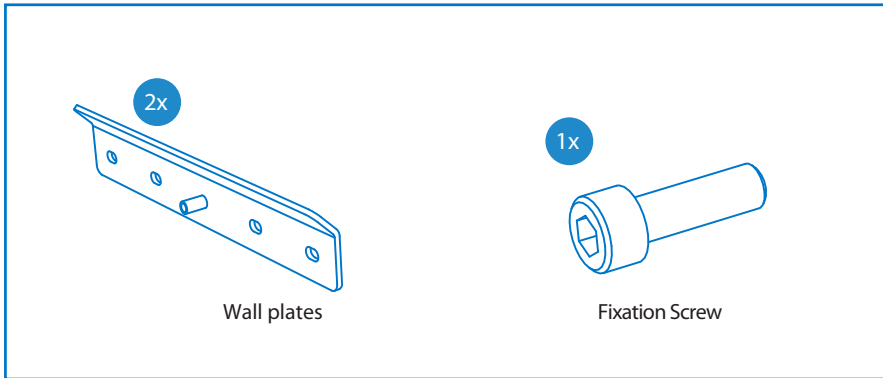
# Dimensions

## **B** Large



# 5

## Installation Kit:



- Screws and plastic anchors are NOT INCLUDED.
- The installation kit has been tested on a concrete wall. For the unit to be securely fixed in such conditions, it is recommended to use:
  - 8 x Inox A2 wall screws: DIN 7982 Ø4,8x38 or DIN 7981 Ø4,8x38
  - 8 x plastic anchors: 6x30
- If the installation surface has different properties, the screws and plastic anchors must be defined by a qualified installer.

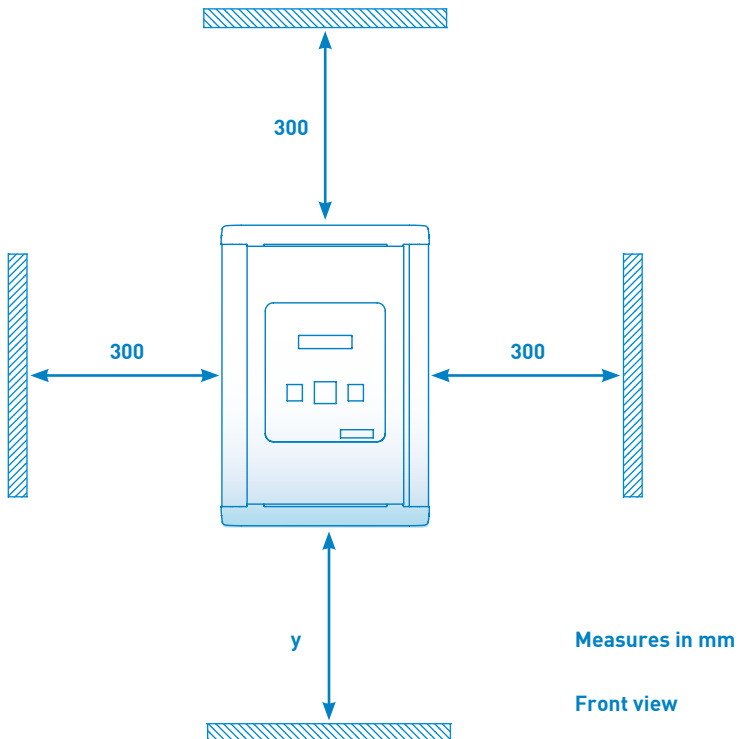
# Installation

## A Space requirements

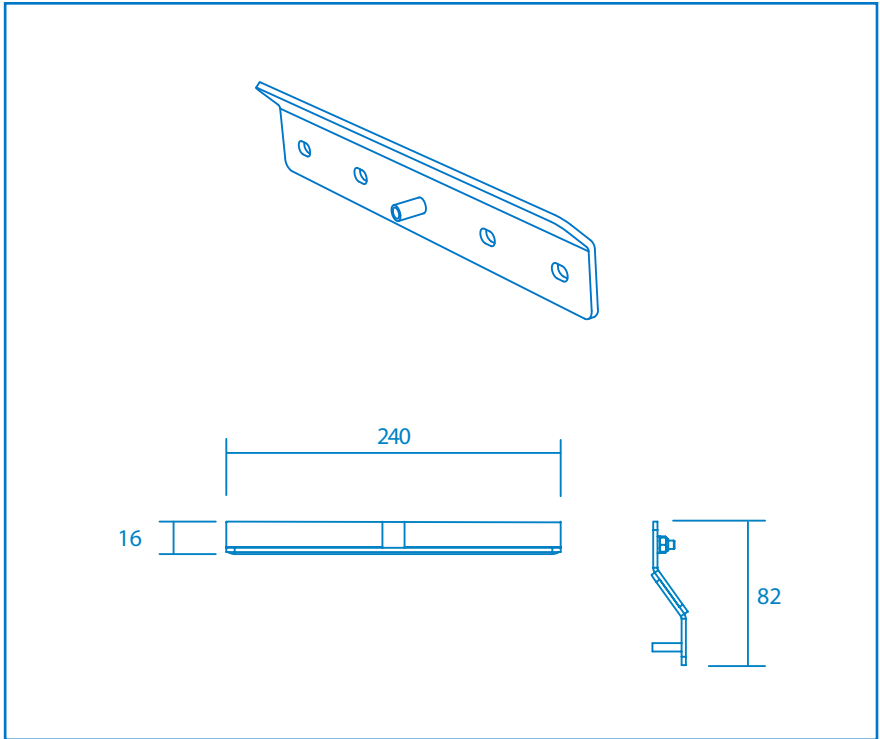
When installing the unit, some space shall be reserved for usability, maintenance and safety reasons.

Please comply accordingly to your country specifications.

The next picture shows the minimum distances:

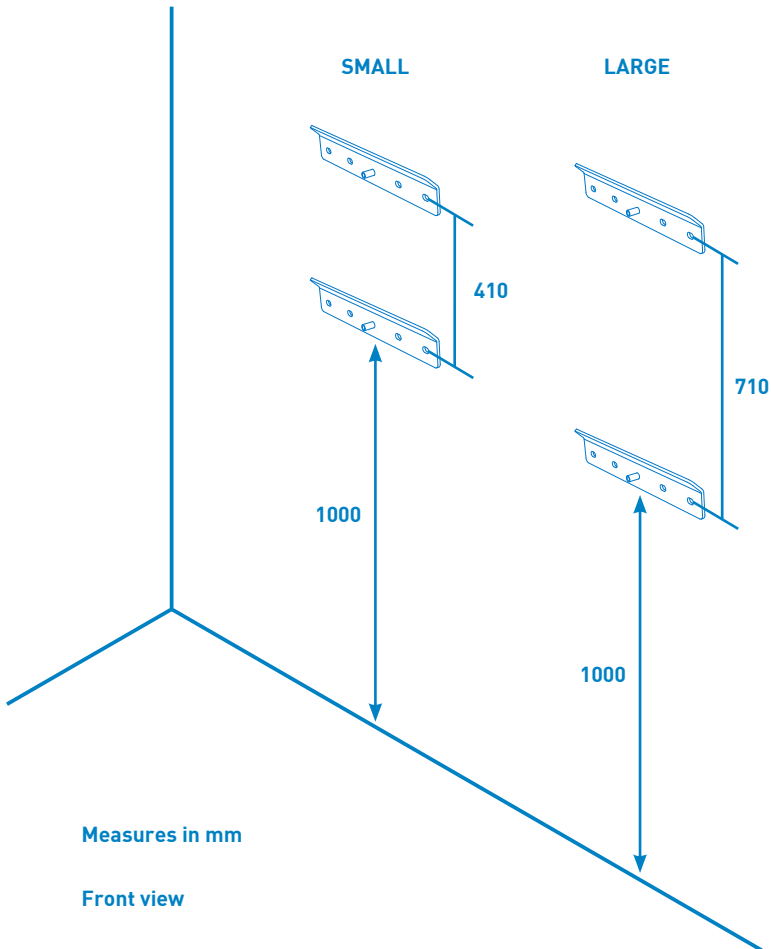


Wall plates:



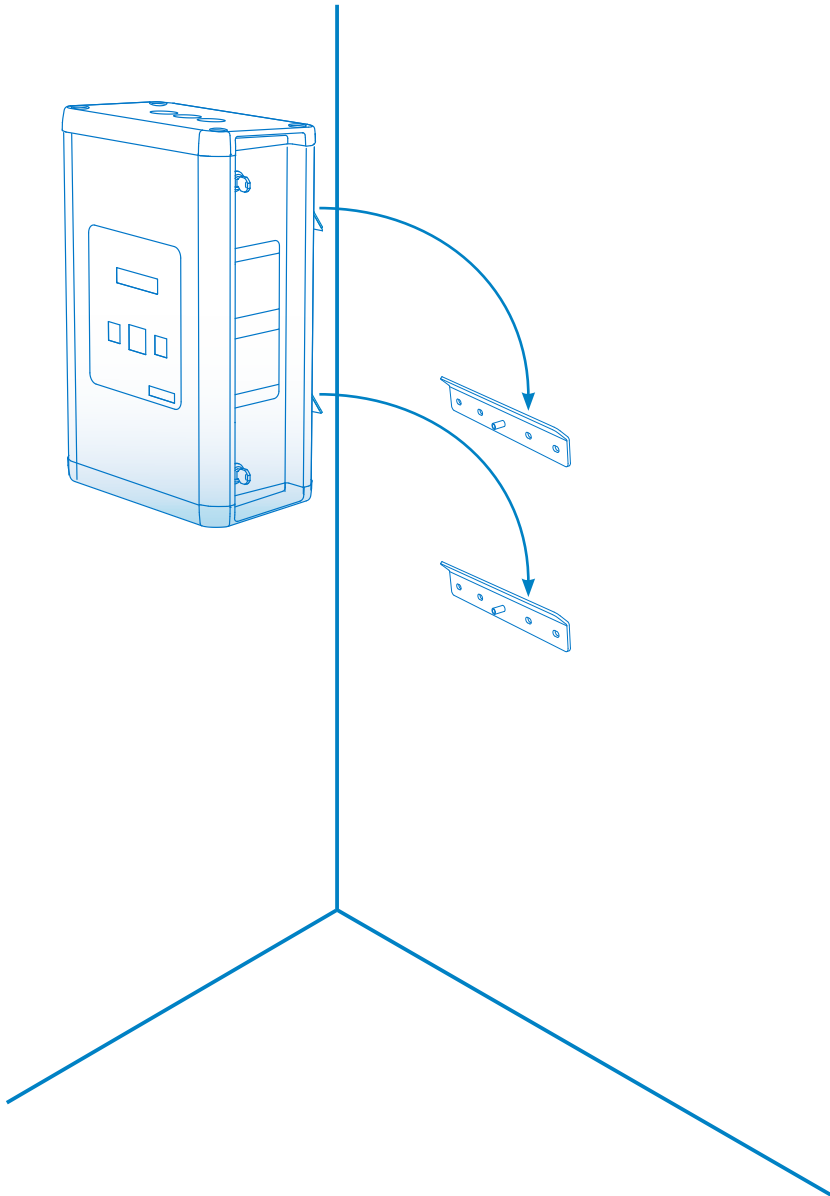
## **B** Plates fixation

Install the plates on the wall considering the distances shown on the image below:



## Positioning

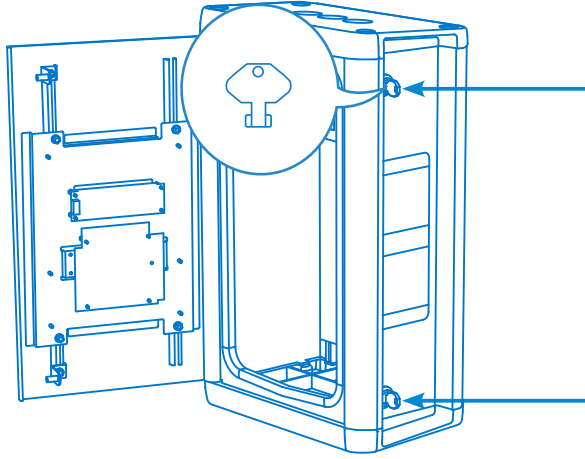
Place de unit on the previously installed wall plates.





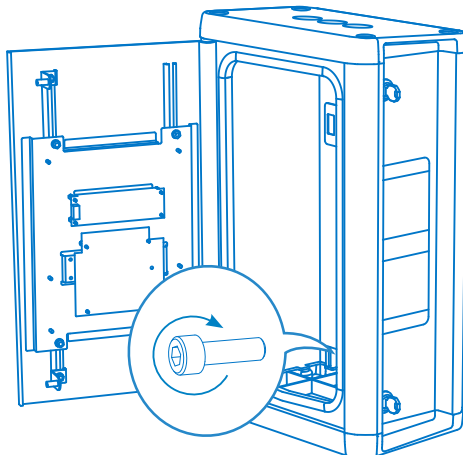
## **D** Opening

Use provided key in order to open the unit.



## **E** Unit fixation

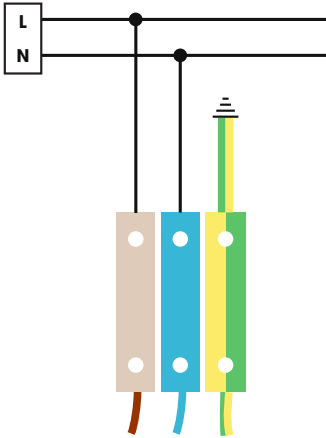
Tighten the provided fixation screw in order to secure the unit to the wall and make sure all components remain as by default before proceeding.



# F Wiring

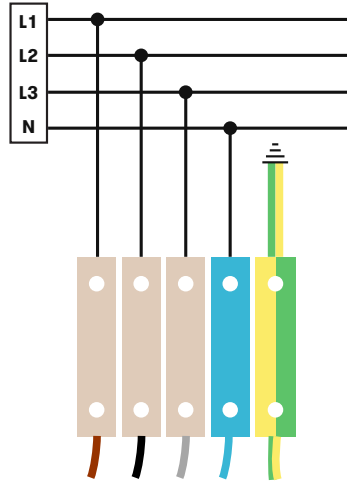
## SINGLE-PHASE CHARGE POINT

- Connect to the 230VAC.



## THREE-PHASE CHARGE POINT

- Connect to the 400VAC.
- If the Power Supply is Single-Phase, connect L1 and N.



- Use provided cable glands in order to maintain the IP protection
- Make sure all screws are securely tightened
- Do not forget to connect the ground cable to the ground terminal
- Terminal block maximum cross-section: 35mm<sup>2</sup>

# Verification

## 1 – POWER INPUT

Before proceeding, make sure voltage is present in the terminal blocks.



For Three-Phase models pay special attention to Neutral Cable.

## 2 – MAINTENANCE MODE

Pull outward the Tamper Switch located in the lower half of the Charge Point.

## 3 – CAREFUL WITH THE WIRES

When closing the unit, keep in mind all cables should remain inside.

## 4 – CHECK THE PLUGS

Plugs should be in good conditions before starting the unit.

## 5 – OPERATION

Check no abnormal noise appears while the unit is charging.

## 6 – CHECK THE BEACON INDICATORS

All beacon indicators should light properly. Here's the reference:

PLUG STATE	BEACON COLOR
Available	Green
Charging	Blue
Fault	Red



GENERAL DATA	
<b>Display</b>	LCD Multi-language
<b>Light beacon</b>	RGB Colour indicator
<b>RFID reader</b>	ISO / IEC 14443A/B MIFARE Classic/Desfire EV1 ISO 18092 / ECMA-340 NFC 13.56MHz
<b>Meter</b>	MID Class 1 - EN50470-3

MECHANICAL DATA	
<b>Enclosure rating</b>	IP54 / IK10
<b>Enclosure material</b>	Aluminium & ABS
<b>Enclosure door</b>	Frontal key locked door
<b>Net weight</b>	Small: 25 kg Large: 30 kg
<b>Dimensions (D x W x H)</b>	Small: 450 x 290 x 600 mm Large: 450 x 290 x 850 mm

ENVIRONMENTAL CONDITIONS	
<b>Operating temperature</b>	-5°C to +45°C
<b>Operating temperature with Low Temperature Kit*</b>	-30°C to +45°C
<b>Storage temperature</b>	-20°C to +60°C
<b>Operating humidity</b>	5% to 95% Non-condensing

# Technical Data

CONNECTIVITY	
Ethernet	10/100BaseTX (TCP-IP)
Cellular*	Modem 3G / GPRS / GSM
Interface protocol	OCPP

ELECTRICAL DATA	
Power supply	1P+N+PE / 3P+N+PE
Input voltage	230VAC+/-10% / 400VAC+/-10%
Frequency	50Hz / 60Hz
Overcurrent protection*	MCB (curve C)
Safety protection*	RCD Type A (30mA) / Type B
Surge protection*	Transient surge protector IEC 61643-1 (Class II)

MODEL**	CONNECTORS	OUTPUT CURRENT	OUTPUT POWER	MINIMUM CABLE CROSS-SECTION***
S	Type 2 Socket Type 2 Socket	32A 32A	7,4kW 7,4kW	25mm <sup>2</sup>
T	Type 2 Socket Type 2 Socket	32A 32A	22kW 22kW	25mm <sup>2</sup>
TM4	Type 2 Socket / CEE 7/3 Type 2 Socket / CEE 7/3	32A / 16A 32A / 16A	22kW / 3,6kW 22kW / 3,6kW	25mm <sup>2</sup>

(\*) Depending on the model, some components may vary

(\*\*) For availability of models, please consult your local supplier

(\*\*\*) This is the minimum cable section recommended for the maximum AC input current, the final section must be calculated by a qualified technician taking into account the specific conditions of installation



# Need help?

In case of any query or need further information, please contact our **Post-Sales Department**



[ps-support@circontrol.com](mailto:ps-support@circontrol.com)



[circontrol.com](http://circontrol.com)



(+34) 937 362 940



(+34) 937 362 941



**CIRCONTROL**  
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**CIRCONTROL eVOLVE  
INSTALLATION MANUAL**

A comprehensive guide on  
how to install and verify  
your Wallbox eVolve.

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