



# Installation Manual

eNext Park



## Revision log

Date	Version	Description
06/2024	v2.2	eNext Park T Two model addition
02/2024	v2.1	Changes in the following sections: 1, 2, 5, 6
–	–	Previous versions

# eNext Park

## Installation Manual

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# Here's the guide to install your eNext

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# 1

## So, hello!

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This manual provides information for installing the Charge Point, which has been designed and tested to allow charging electric vehicles, as specified at IEC 61851 standards.

This document has different sections describing electrical components inside the Charge Point and a step-by-step installation procedure.

It is mandatory to follow the basic security information supplied in this manual to ensure safe and proper installation.

Failure to follow safety instructions may involve personal injury, equipment damage and danger of death. CIRCONTROL is not responsible for events arising from such breach.

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

#### **ELECTRIC RISK**

This symbol indicates a potentially hazardous situation which, if not avoided may result in a risk of fire, serious injury or death.



The Charge Point must be disconnected from any power source before performing any maintenance, repair or electrical manipulation inside.

#### **ATTENTION!**

Follow the instructions preceded by this symbol, if not respect them or perform them correctly, may result in minor or moderate injury to the user, damage to equipment, damage to facilities or other property.



Handling the equipment can cause injuries as result of the dimension and weight. Persons handling the unit must wear safety shoes and gloves.

- Complies with IEC 61851, Electric vehicle conductive charging system (IEC 61851-1 and IEC 61851-21-2).
- Complies with IEC 62196, Plugs, socket-outlets, vehicle couplers and vehicle inlets (IEC 62196-1 and IEC 62196-2).
- Complies with Directives: 2014/35/EU, LVD;2014/30/EU, EMC.
- Complies with *The Electrical equipment (safety) regulations 2016 guidance* and *The Electromagnetic compatibility regulations 2016 guidance*.
- RFID complies with ISO/IEC 14443A&B, MIFARE Classic/DESFire EV1, ISO 18092 / ECMA - 340.
- Modem 4G complies with CE/RED and *Radio Equipment Regulations 2017*.

## 2

# Before the installation

## A) Important safety instructions



**Read carefully all the instructions before starting in order to ensure properly installation of the Charge Point.**

The Charge Point is designed for installation at 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 explosion or any salinity level.
- Charge Point must not be installed in industrial areas with high level of humidity or pollutants.
- 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 61851-1.
- 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 the electrical parts inside the Charge Point.
- 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 unit if the enclosure or the EV connector is broken, cracked, open, or shows any other indication of damage.



## B) Electrical wiring considerations



**Take into consideration this section before start wiring connections of the Charge Point.**

### 1 - ELECTRICAL PROTECTIONS

Charge Point may not include elements of electrical protection. If this equipment has internal electrical protections, they are installed for each socket-outlet for the protection of the user against an electrical failure, according to the international standard IEC 61851-1:2017.

The chargers equipped with Type A RCDs require an additional RCD installed upstream in order to ensure the whole installation is compliant with the standard IEC 60364-7-722. This RCD shall be of Type B or Type A with additional protection for DC leakage of 6mA (RCD-DD) according to the IEC 62955.

In order to guarantee the total protection of the users and the installation (power supply line included) in front of any electrical hazard, it is mandatory to install a main circuit breaker (MCB) and a residual current device (RCD) upstream of the charger. These electrical protections and the rest of the installation have to be aligned with the local and national rules. The selectivity of the protections has to be guaranteed at all times.

### 2 - POWER SUPPLY LINE DIMENSIONING

The dimensioning of the input power supply line of the Charge Point shall be checked by a qualified electrician. Note that various factors such as cable length between distribution board and Charge Point and maximum output current of the Charge Point may have influence on the selected cable. In such cases, increasing the cable cross-section is required to adapt the temperature resistance of the power supply line.

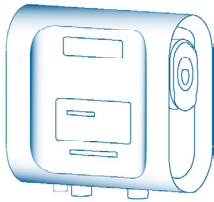
### 3 - MAXIMUM OUTPUT CURRENT

Please refer to the TECHNICAL DATA section to consult the default factory settings of 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 USER MANUAL.

# 3

## Overview

What's included:



Charge Point



Quick Installation Guide

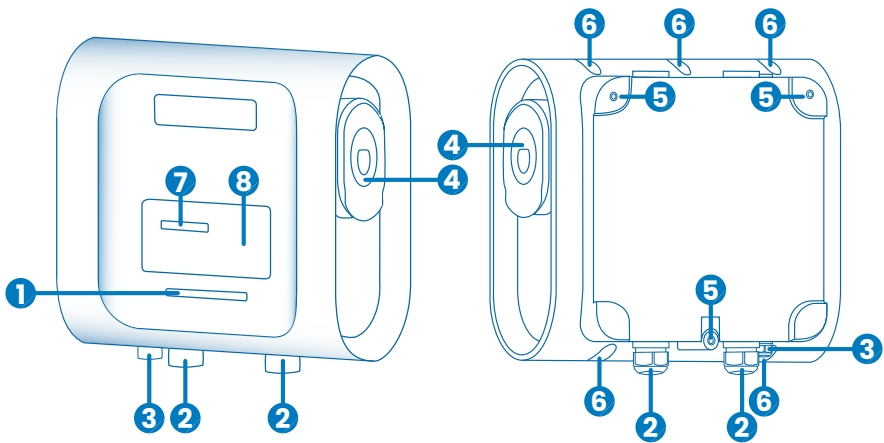


Allen wrench  
2.5 mm



Ethernet cable gland<sup>(1)</sup>

**NOTE:** The configuration of cable glands and caps may vary depending on the model.



**1 – LED beacon**

**2 – Cable glands**

**3 – Ethernet cable gland<sup>(1)</sup>**

**4 – Plugs<sup>(2)</sup>**

**5 – Wall support holes**

**6 – Closing box holes**

**7 – LCD**

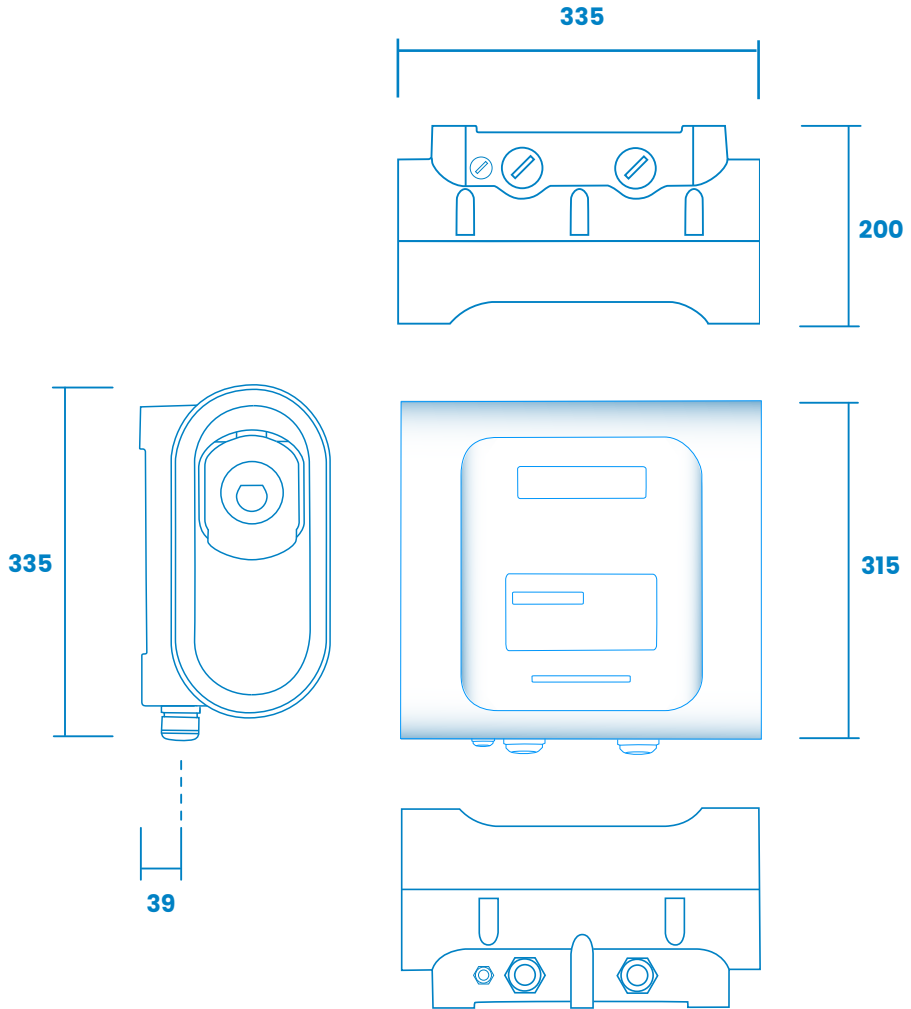
**8 – RFID reader**

<sup>(1)</sup> Only available in eNext Park T Two

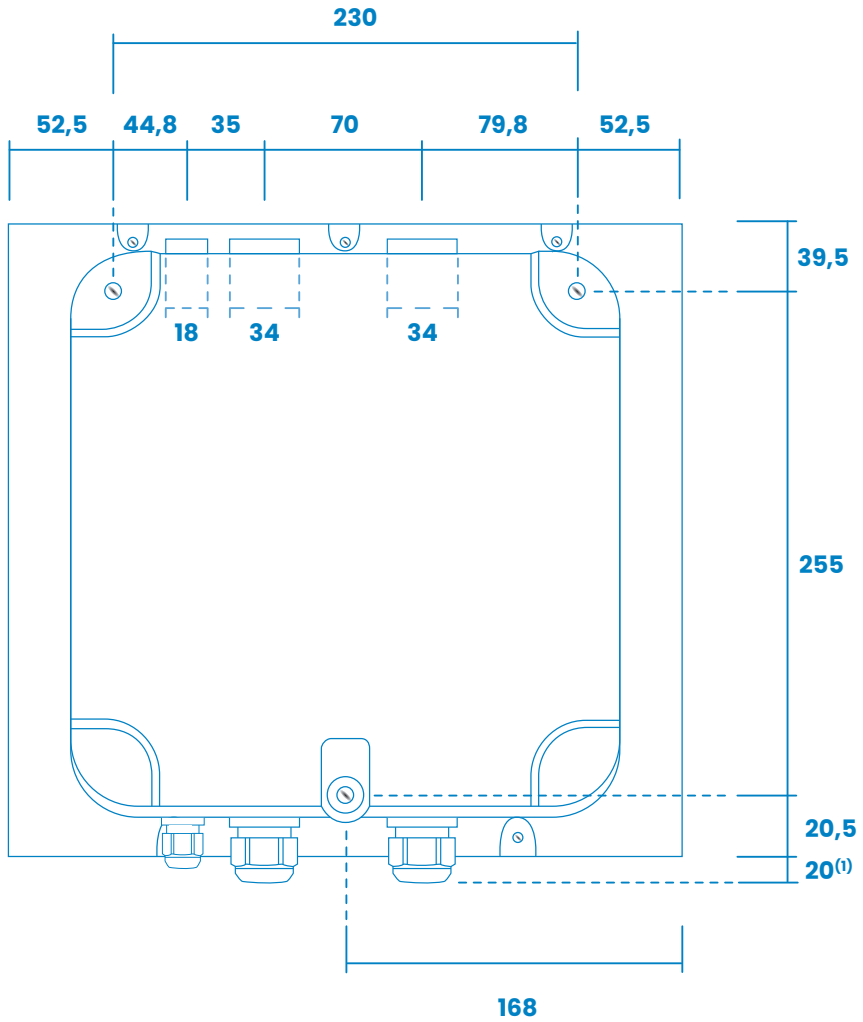
<sup>(2)</sup> Plugs may vary depending on the model

# 4

## Dimensions



Dimensions in mm



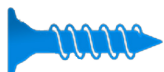
<sup>(1)</sup>This measurement may vary

# 5

## Installation

### Material:

- Allen wrench of 2,5 mm is included in the installation kit.
- Screws, sealing washers and plastic anchors are not included.
- The fastening system of the Charge Point has been designed to be installed on a wall.
  - » This system has been tested on a concrete wall, to be securely fixed in such conditions is recommended to use:



3 x Inox A2 wall screws: DIN 7982 Ø4,8x3



3 x plastic anchors: 6x40 or 8x40

- » If the wall surface has different properties, the screws and plastic anchors must be defined by a qualified installer.

### Tools:



**Screw driver**



**Ratchet<sup>(1)</sup>**  
2.5mm Allen

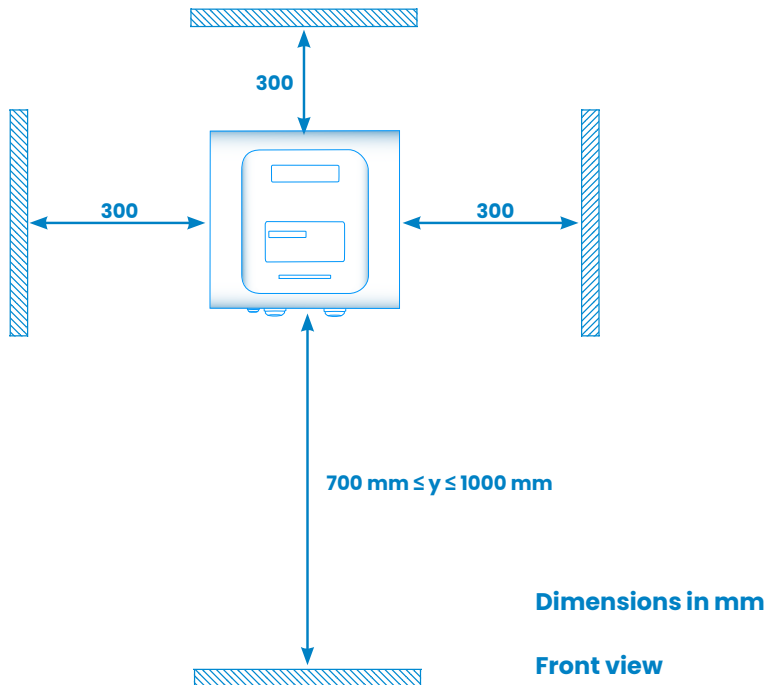


**Driller**  
Tap drill 6/8M

<sup>(1)</sup> Ratchet tool can be used to open/close the Charge Point if required by the conditions of installation.

## A) Minimum distances

- Please comply with your country regulations.
- The Charge Point shall be installed on a wall or on Circontrol accessories.
- When installing the unit, some space shall be reserved for usability, maintenance and safety reasons. The picture below shows the recommended minimum distances:



If the recommendations are not followed as described, Circontrol will reject all responsibility and the warranty will be void.

## B) Opening

Open the eNext using an Allen wrench.



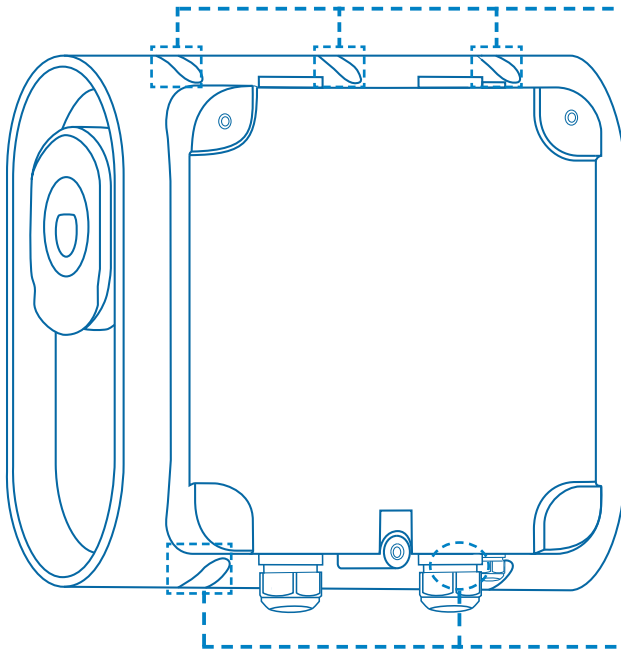
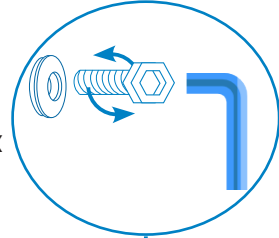
2.5 mm Allen wrench



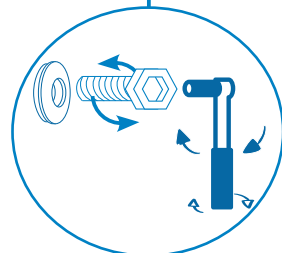
Screw  
DIN-7380-2 M4x14 INOX



Sealing washer  
DIN 7712 4.8 14MM INOX

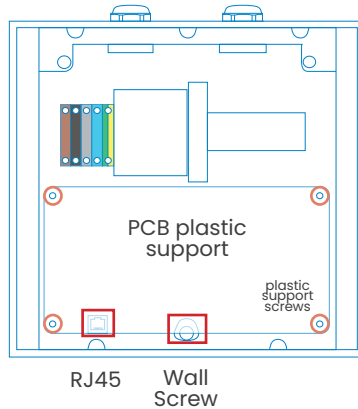


Use the ratchet tool to open / close  
in conditions that hinder access



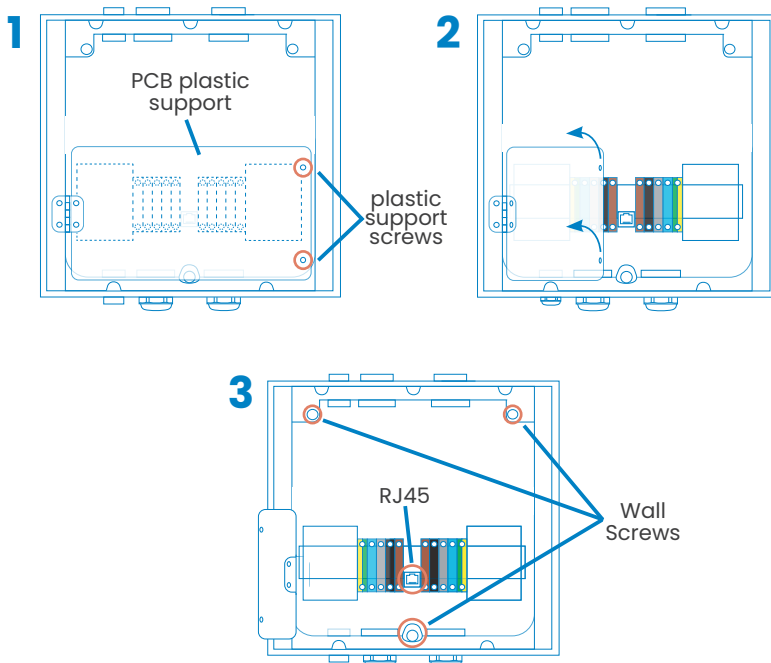


Remove<sup>(1)</sup> the PCB plastic support to have access to the Ethernet connection and the wall screw hole.



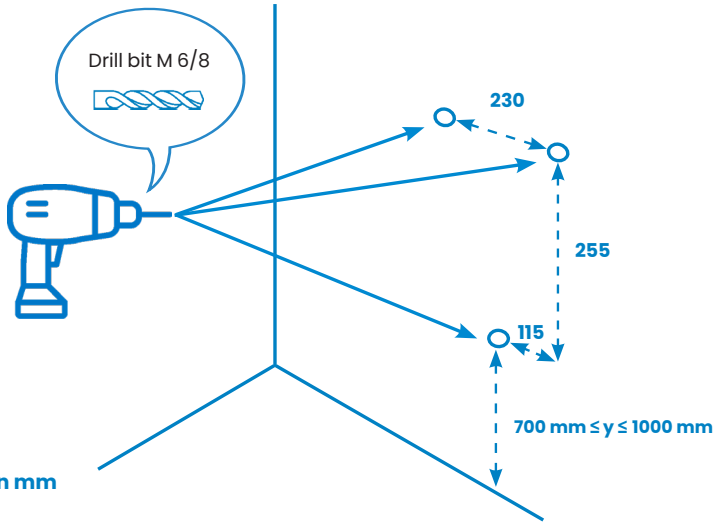
<sup>(1)</sup> In case of having the eNext Park T Two model, it will incorporate a hinge.

Consequently, simply remove the screws on the right side and open the PCB plastic support to have access to the Ethernet connection and the wall screw hole.



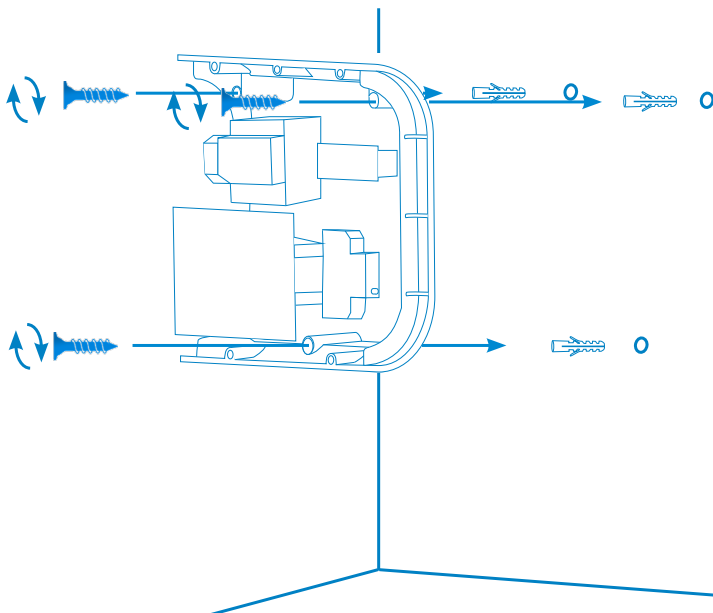
## C) Positioning

Drill the wall.



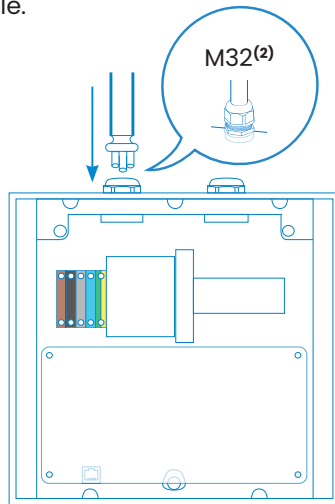
## D) Fixing

Place the unit on the previous pierced points and fix it with screws.



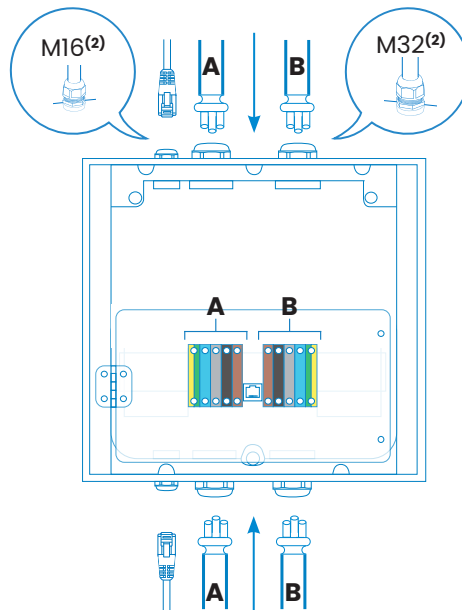
## E) Wiring

Insert<sup>(1)</sup> the power cable.

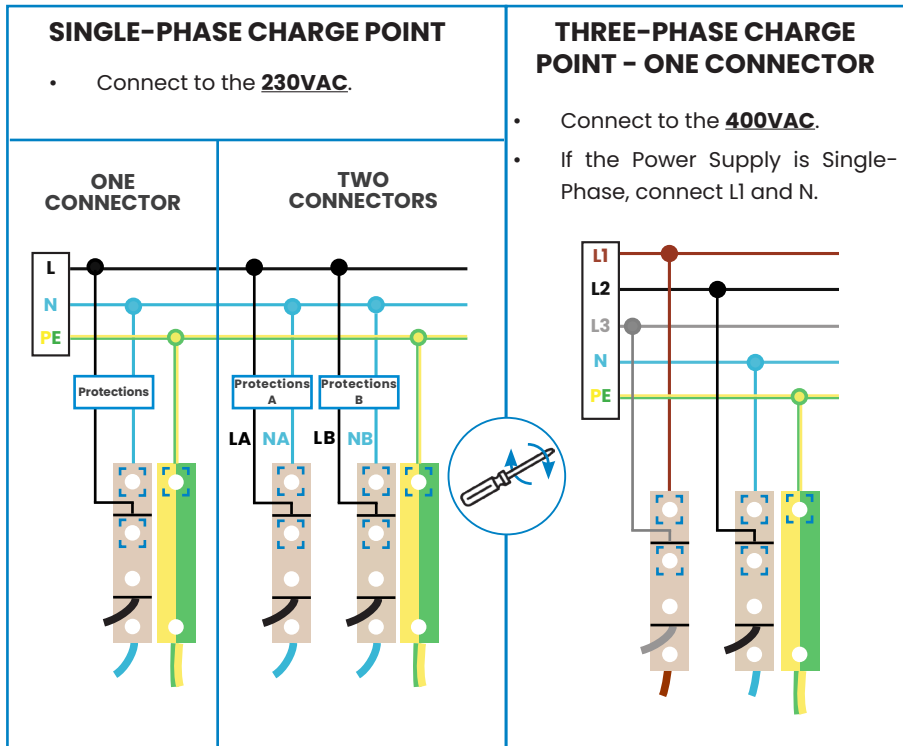


<sup>(1)</sup> In case of having the eNext Park T Two model, there are two possibilities.

Circontrol recommends to use the **upper supply entry for indoor installations** and **bottom supply entry for outdoor installations**.



<sup>(2)</sup> Use provided cable glands in order to maintain the IP protection



**Terminal block maximum cross-section: 16 mm<sup>2</sup>**

**Type of cable allowed by the terminal block: Copper**

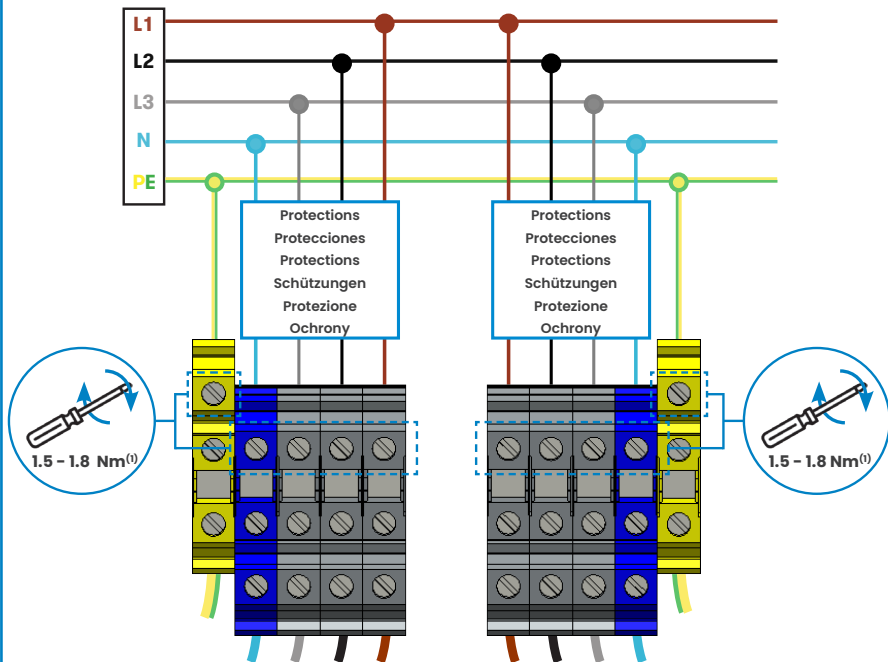
**Do not forget to connect the ground cable to the ground terminal**

**Make sure all screws are securely tightened**

**Note:** The proper earthing system must be II or TN-S. The ground loop impedance measurement for the entire installation must be less than 80 ohms; however, it could be even less if required by national regulations. At least once a year it is recommended to carry out the verification of the installation grounding by qualified personnel when the terrain is drier.

### THREE-PHASE CHARGE POINT - TWO CONNECTORS

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



<sup>(2)</sup> Terminal block maximum cross-section: 10 mm<sup>2</sup>



Type of cable allowed by the terminal block: Copper, Aluminium



Do not forget to connect the ground cable to the ground terminal



<sup>(1)</sup> Make sure **all** screws are securely tightened

<sup>(2)</sup> Up to 16 mm<sup>2</sup> in case of using wire-end ferrules.

# F) Verification

Close the Charge Point taking into account the following steps of verification and operation.

## 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 – CAREFUL WITH THE WIRES

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

## 3 – CHECK THE PLUGS

Plugs should be in good conditions before starting the unit.

## 4 – ELECTRICAL PROTECTIONS

Rearm all the protections installed on the unit.

## 5 – CLOSING

Place the sealing washers on the screws and then place both in the Charge Point to close it. Do not thight the screws yet.

## 6 – CHECK THE BEACON INDICATORS

All beacon indicators should light properly. The behaviour of eNext Park T Two is slightly different. Here are both references:

### *eNext Park T Two:*

<b>PLUG STATE</b>	<b>BEACON COLOR</b>
Available	Green
Pause <sup>(1)</sup>	Blue (Blinking)
Charging	Blue
Fault/Disable	Red

<sup>(1)</sup> This state refers to all cases at which the charge is stopped, e.g.: charging is ready but has not started yet, charging finished but the EV is still connected or just paused during charging.

*Other models:*

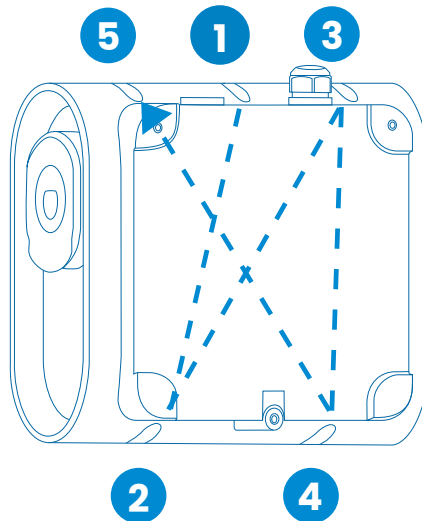
PLUG STATE	BEACON COLOR
Available	Green
Charging	Blue
Fault	Red

## 7 – OPERATION

Check that no abnormal noise appears while the unit is charging.

## 8 – SECURE CLOSURE

- Tighten the screws crosswise in the sequence shown below:
- As a guideline, the recommended assembly torque is 0.8-1 Nm.



## 9 – PREVENTIVE MAINTENANCE

It is recommended to perform one preventive maintenance per year.

## 6

# Technical data

## MECHANICAL SPECIFICATIONS

Light beacon	RGB Colour indicator
Display	LCD Multi-language
RFID	IEC 14443A&B, MIFARE Classic/DESFire EV1, ISO 18092 / ECMA - 340
Enclosure rating	IP54 / IK10 <sup>(1)</sup>
Enclosure material	ABS / PC
Enclosure door system	Anti-vandalism Allen screws
Net weight	4 kg
Dimensions (W x H x D)	335 x 315 x 200 mm

<sup>(1)</sup> IK08 in some components appended to the body ie: display, window, beacon light.

## ENVIRONMENTAL CONDITIONS

Operating temperature <sup>(2)</sup>	-5°C to +50°C
Minimum operating temperature with Low Temperature Kit <sup>(3)</sup>	-30°C
Operating humidity	5% to 95% Non-condensing

<sup>(2)</sup> Maximum temperature for eNext Park T Two. For all other models, the maximum temperature is +45°C.

<sup>(3)</sup> Equipment to be installed outdoor shall be provided with the Low Temperature Kit in order to comply with the IEC 61851-1:2017

## CONNECTIVITY

Ethernet	10/100BaseTx (TCP-IP)
Cellular	Modem 4G LTE / 3G / GPRS
Wi-Fi <sup>(4)</sup>	Wi-Fi 2.4 GHz (IEEE 802.11 b/g/n)
Interface protocol <sup>(4)</sup>	OCPP 1.6J, 2.0.1 Ready

## ELECTRICAL SPECIFICATIONS

Power supply	1P+N+PE / 3P+N+PE
Input voltage	230 V <sub>AC</sub> +/-10% / 400 V <sub>AC</sub> +/-10%
Frequency	50 Hz / 60 Hz



### ELECTRICAL PROTECTIONS

<b>Residual Current Device (RCD)<sup>(4)</sup></b>	RCD-DC 6 mA <sub>DC</sub>
<b>Safety protections<sup>(4)</sup></b>	Welded contact detection



**Some models cannot include internal protections, at this point, they shall be placed upstream with the same characteristics. National regulations must be taken into account.**

MODEL <sup>(5)</sup>	CONNECTORS <sup>(6)</sup>	OUTPUT CURRENT	OUTPUT POWER	RECOMMENDED CABLE CROSS SECTION <sup>(7)</sup>
<b>S</b>	1 x Type 2 Socket	1 x 32 A	1 x 7.4 kW	6 mm <sup>2</sup> to 10 mm <sup>2</sup> (Up to 16 mm <sup>2</sup> with wire-end ferrules)
<b>T</b>	1 x Type 2 Socket	1 x 32 A	1 x 22 kW	
<b>TME</b>	1 x Type 2 Socket 1 x CEE 7/3	1 x 32 A 1 x 16 A	1 x 22 kW 1 x 3.6 kW	
<b>S TWO</b>	2 x type 2 Socket	2 x 32A	2 x 7.4 kW	
<b>T TWO</b>	2 x Type 2 Socket	2 x 32 A	2 x 22 kW	

<sup>(4)</sup> Only available in eNext Park T Two.

<sup>(5)</sup> Depending on the model, some components may vary.

<sup>(6)</sup> Please check availability with your local supplier.

<sup>(7)</sup> Cable cross section recommended by Circontrol. However, the final cross section must be calculated by a qualified technician taking into account the specific conditions of installation and the local regulations.

### OPTIONAL DEVICES

<b>Wireless Communication</b>	4G / 3G / GPRS / GSM
<b>Low Temperature Kit</b>	Up to -30°C
<b>Type 2 Charging Socket or Cable</b>	Shutter
<b>Tethered Cable</b>	Type 1 straight + Cable holder Type 2 straight + Cable holder
<b>Legic RFID reader</b>	IEC 14443A&B, ISO 18092 / ECMA - 340, ISO 15693, Legic Prime
<b>Pedestal</b>	Painted aluminium support
<b>Customisation</b>	Logo customisation



## **Need help?**

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In case of any query or if further information is required, please contact our **Post-Sales Department**.



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