

# **EV Charging** Catalogue



Circontrol's eMobility Division comprises a set of products and solutions designed to facilitate Electric Vehicle (EV) charging.

We aim to provide user-friendly solutions for electric vehicle charging in different scenarios, such as urban streets, intercity roads and public or private car parks, for multiple or single users.

Our product portfolio offers a wide product range that covers slow charging (AC) and fast charging (DC). Circontrol is a European Leader in EVSE with a presence in 60 countries and more than 3,500 DC chargers and 80,000 charging points installed worldwide.

#### **EV Chargers**

| Application by market segments | 6  |
|--------------------------------|----|
| Wallbox eHome                  | 8  |
| Wallbox eNext                  | 10 |
| Home BeON                      | 12 |
| Wallbox eNext Elite            | 14 |
| Wallbox eNext Park             | 16 |
| Wallbox Smart                  | 18 |
| Wallbox eVolve Smart           | 20 |
| Post eVolve Smart              | 22 |
| Master-Slave                   | 24 |
| eVolve Rapid                   | 28 |
| Raption 50                     | 30 |
| Raption 100                    | 32 |
| Raption 150                    | 34 |

| EV Charging Software      | 36 |
|---------------------------|----|
|                           |    |
| Load Management (DLM)     | 38 |
| Usage Management (Cosmos) | 40 |

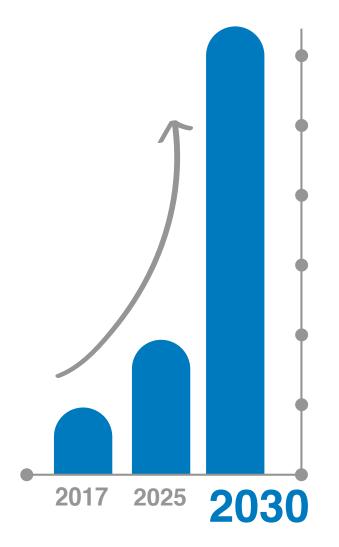
### After-sales Support 42



# Who drives an EV?

## The presence of an EV charger

on the street or a silent EV cruising down the road were rare sights not so long ago, but they are becoming increasingly common, and forecasts indicate they will be an everyday reality sooner rather than later.



Forecasts show sales of electric vehicles increasing up to 11 million in 2025 and then surging to 30 million in 2030.

By 2040, 55% of all new car sales and 33% of the global fleet will be electric.\* \*According to Bloomberg New Energy Finance This rising interest in EVs makes knowing more about these early adopters even more important.

### Who are they?

Mostly they are









Richer than the average



# Why did they buy an EV?

Main reason



Environmental benefits



Financial savings



Interest in new technology



Driving benefits (instant torque or smooth & quiet)

# Application by market segments Charging Station for Electric Vehicles







|   |                 | Wallbox<br>eHome | Wallbox<br>eNext | Wallbox<br>eVolve | Post<br>eVolve | Raption<br>50/100 | Raption<br>150 |
|---|-----------------|------------------|------------------|-------------------|----------------|-------------------|----------------|
|   | Destination     |                  | •                | •                 | •              | •                 |                |
|   | eBus            |                  |                  |                   | •              | •                 |                |
|   | Service station |                  |                  |                   | •              | •                 |                |
|   | Car park        |                  | •                | •                 | •              |                   |                |
|   | Business        |                  | •                | •                 | •              |                   |                |
| ٠ | Home            | •                | •                |                   |                |                   |                |
|   | Public          |                  |                  |                   | •              | •                 | •              |



### Wallbox eHome

The best quality-price ratio for domestic charging

#### Application

Designed to be installed (both indoors and outdoors) at private homes, communal blocks, companies and other places where user authentication is not a requirement.

#### **Concept Design**

Taking into account that a domestic charger is often considered an appliance, an attractive design and a small size are key attributes to be addressed.

The Wallbox eHome series also offers other attributes such as low-cost, robustness, and user-friendly operation.

#### **Product highlights**

- Compatible with the **Home BeON sensor** (accessory), when combined with eHome, it is able to dynamically adjust the electric vehicle's consumption according to the available power of the installation. This avoids the risk of a power cut and/or having to upgrade the existing installation (resulting in a lower initial investment).
- The **LED bar** at the front not only informs the user about the charger's status (e.g. operative, faulty...), but also the EV charging status: charging (dynamic blue light) vs charged (static blue light).
- The door at the front with **key access and** electrical protections (optional) not only provides easy access in the event of a power cut, but also protects the user from electric shocks. It can also be used as a user authentication method (using the protection as an ON/OFF switch).
- The charger's **housing** is made of ABS plastic, which is both robust and UV resistant, providing protection against mechanical stress and severe environmental conditions (increasing the charger's lifespan, meaning it does not need to be replaced in just a few years).

- Its well-designed shape allows the cable to be rolled up, keeping it tidy and protecting it from breaking while the charger is not in use.
- Simple user operation thanks to its **Plug 'n' Charge** mode that avoids user authentication by means of an RFID card, phone of equivalent method.
- This series also includes a **selector switch** that facilitates the setup of the charger's maximum output current (reducing installation time and cost).
- **Remote charging activation** is also offered by means of an ON/OFF external input signal (e.g. timer).
- The Wallbox eHome series features a reserved space in case you want to include **your own branding on it**.
- Several security protections are available as optional, including 6mA DC leakage detector.
- Communication RS485 Modbus in order to integrate with external HEMS (Home Energy Management Systems) for smart management and monitoring purpose.

### Wallbox eHome Series

#### **General Specifications**

| Enclosure rating               | IP54 / IK10*                      |
|--------------------------------|-----------------------------------|
| Enclosure material             | ABS-PCV0                          |
| Operating temperature          | -5 °C to +45 °C                   |
| Ambient temperature storage    | -40 °C to +60 °C                  |
| Operating humidity             | 5% to 95% Non-condensing          |
| Light beacon                   | RGB colour indicator              |
| Current setup                  | Onboard DIP switch                |
| Dimensions (D x W x H)         | 115x180x315 mm                    |
| Weight                         | 4 kg                              |
| External input                 | Remote charging activation        |
| *IK08 in some components appen | ded to the body i.e. beacon light |

| -                               |                                      |
|---------------------------------|--------------------------------------|
| *IK08 in some components append | ded to the body, i.e., beacon light. |

Customisation Communication NEW

Cable support

**Optional devices** 

Low temperature kit

Power limit control\*\*

Type 2 socket protection

Safety protection\*

Active Energy

-30 °C to +45 °C

RCD Type B (30mA)

Home BeON sensor

Logo customisation

Metallic holder

RS485 Modbus

Shutter

MID Class 1 - EN50470-3

RCD Type A (30mA) + 6mA DC

Meter\*

\*Not available for socket models.

\*\*Single-phase models only.

#### **Model Specifications**

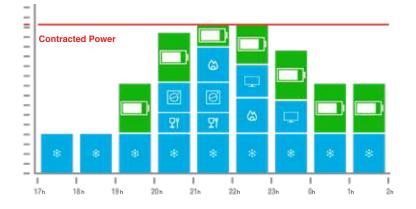
| Model           | T1C32          | T2C32          | T2S32          | T2C16 TRI      | T2S16 TRI      |
|-----------------|----------------|----------------|----------------|----------------|----------------|
| AC power supply | 1P + N + PE    | 1P + N + PE    | 1P + N + PE    | 3P + N + PE    | 3P + N + PE    |
| AC voltage      | 230 VAC +/-10% | 230 VAC +/-10% | 230 VAC +/-10% | 400 VAC +/-10% | 400 VAC +/-10% |
| Maximum current | 32 A           | 32 A           | 32 A           | 16 A           | 16 A           |
| Maximum power   | 7.4 kW         | 7.4 kW         | 7.4 kW         | 11 kW          | 11 kW          |
| Connection      | Type 1 Cable   | Type 2 Cable   | Type 2 Socket  | Type 2 Cable   | Type 2 Socket  |
|                 |                |                |                |                |                |

#### **Home BeON Compatible**

Intelligent sensor for single-phase installations

#### Home BeON is a new step forward in domestic EV charging, allowing you to charge your vehicle while using your appliances.

Its intelligent sensor, easily added to the standard domestic fuse box, dynamically adjusts electric vehicle's consumption if the home's system is about to be overloaded.





## Wallbox eNext

The perfect EV charger for your digital home

#### Application

Designed to be installed (both indoors and outdoors) at private homes, communal blocks, workplaces.

#### **Concept Design**

eNext has been designed to simplify the charging process. We developed an autorization method via app that allows the user to start charging without any interaction with the charger.

In terms of the exterior design, we kept black and white as the core design colours while introducing curved lines and rounded shapes. The appropriate proportions and the perfect size, along with the piano black combined with matt white makes the eNext series the best choice to match any wall.



#### **Product highlights**

- **Hi Charger App** designed to control and configure the eNext: language configuration, user authentication, wallbox diagnosis and firmware upgrades, among others.
- App charge authorization by Bluetooth avoiding any interaction with the charger and protecting it from non-desired users.
- **Remote charging activation** is also offered by means of an ON/OFF external input signal (e.g. timer).
- **Timetable programming** to adjust the charging session to the hourly energy rates.
- Ready for internal integration of electrical protections.
- Includes welded contactor detection that meets with IEC 61851-1 for safety protection.
- The Wallbox eNext series features a reserved space in case you want to include **your own branding on it.**

- **DC leakage detection** can be ordered as an optional extra. Thus, in conjunction with the welded contactor and RCD A, the highest safety protection is guaranteed.
- Compatible with the **Home BeON sensor** (accessory), when combined with eNext, it is able to dynamically adjust the electric vehicle's consumption according to the available power of the installation.
- The **LED bar** at the front not only informs the user about the charger's status (e.g. operative, faulty...), but also the EV charging status: charging (dynamic blue light) vs charged (static blue light).
- The charger's **housing** is made of ABS plastic, which is both robust and UV resistant, providing protection against mechanical stress and severe environmental conditions.

### Wallbox eNext Series

#### **General Specifications**

| Wireless communication   | Bluetooth v4.2 + BLE                            |  |
|--|---|--|
| Enclosure rating   | IP54 / IK10*                                    |  |
| Enclosure material   | ABS / PC  |  |
| Operating temperature  | -5 °C to +45 °C                                 |  |
| Ambient temperature storage  | -40 °C to +60 °C                                |  |
| Operating humidity   | 5% to 95% Non-condensing                        |  |
| Light beacon   | RGB colour indicator                            |  |
| Power limit control  | Mode 3 PWM control according to ISO/IEC 61851-1 |  |
| Dimensions (D x W x H)   | 200 x 335 x 315 mm                              |  |
| Weight   | 4 kg  |  |
| External input   | Remote charging activation                      |  |
| Safety protection  | Welded contactor detection                      |  |
| *IK08 in some components appended to the body, i.e., beacon light. |   |  |

| Optional devices           |   |
|----------------------------|---|
| Low temperature kit        | -30 °C to +45 °C                                    |
| Protections                | DC 6mA leakage detection<br>RCBO (RCD Type A + MCB) |
| Power limit control*       | Home BeON sensor                                    |
| Type 2 socket protection   | Locking System                                      |
| Type 2 charging socket     | Shutter   |
| Tethered cable             | Type 1 straight + cable roller                      |
|                            | Type 1 spring + connector holder                    |
|                            | Type 2 straight + cable roller                      |
|                            | Type 2 spring + connector holder                    |
| Pedestal                   |   |
| Customisation              | Logo customisation                                  |
| *Single-phase models only. |   |

#### **Model Specifications**

| Model                             | S                     | т                     |
|-----------------------------------|-----------------------|-----------------------|
| AC power supply                   | 1P + N + PE           | 3P + N + PE           |
| AC input voltage                  | 230 VAC +/-10%        | 400 VAC +/- 10%       |
| Maximum input current             | 32 A                  | 32 A                  |
| Maximum input power               | 7.4 kW                | 22 kW                 |
| Number of plugs                   | 1                     | 1                     |
| Maximum output power per outlet   | 7.4 kW                | 22 kW                 |
| Maximum output current per outlet | 32 A                  | 32 A                  |
| AC output voltage                 | 230 VAC (1P + N + PE) | 400 VAC (3P + N + PE) |
| Socket Type                       | 1 x Type 2 Socket     | 1 x Type 2 Socket     |
|                                   |                       |                       |

#### **Pedestal**

A good choice when there is no wall.



Material: Aluminium 5754 Weight: 10 kg

Dimensions  $(H \times W \times D)$ : 1500x373x150 mm **Promotional Totem** 

A smart marketing tool for car dealers, showrooms, exhibitions, etc.



Material: Polystyrene (1.5 mm wide) Weight: 4 kg

Dimensions  $(H \times W \times D)$ : 1550x400x250 mm

## Home BeON

The ultimate EV charger synchronised with your home

- Would you like to charge your EV faster without the need for a costly installation upgrade?
- Would you like to avoid any risk of power cuts when using appliances and charging the EV at the same time?
- Would you like to have all this without a huge investment?



# Home BeON is a new step forward in domestic EV charging, allowing you to charge your vehicle while using your appliances.

Its intelligent sensor, easily added to the standard domestic fuse box, dynamically adjusts the electric vehicle's consumption if the home's system is about to be overloaded.

Home BeON measures and interprets the housing consumption, generates the corresponding signal and sends it to the Wallbox eHome charging station, which interprets and modifies its output current accordingly.

Home BeON uses the moments when the house is using less power to charge your EV, saving money and energy.





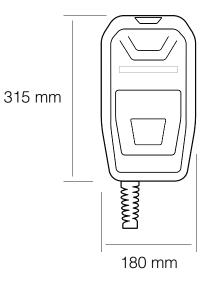
#### Compatible with eHome and eNext

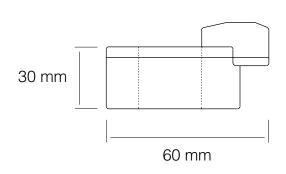
Intelligent sensor



#### **Product dimensions**

It is so small that will fit everywhere





# Wallbox eNext Elite

The most advanced option in connectivity, ready for future demands

#### Application

Designed to be installed inside or outside homes, neighbourhood blocks, workplaces or car parks, where managing charging and users may be required.

#### **Concept Design**

The increasing sophistication of car parks and EV users requires smart EV charging solutions with the potential for cloud integration for remote management and monitoring via the OCPP communication protocol.

Maintaining the elegant eNext design, this new wallbox goes one step further in terms of connectivity and usability thanks to the Wi-Fi connection. Furthermore, its digital system can easily be updated with the latest features and future requirements.



#### **Product highlights**

- Advanced connectivity. The charger can be connected to a back-office system (through OCPP) either by Wi-Fi, Ethernet port or 4G/3G/ GPRS modem (optional), resulting in benefits such as user management, billing, remote error diagnostics, etc.
- **3.5" colour screen.** Displays the charging instructions clearly through pictograms. It also provides information on the charging and connectivity status.
- **Protection.** The system guarantees the best level of protection thanks to integrated DC leakage detection and welded contact detection. The charger also permits integration with additional internal protection features.
- **Dynamic charging settings.** The charger is compatible with the Home BeON sensor (optional) which, combined with the eNext, dynamically adjusts the consumption of the electric vehicle, taking into account the power available in the system.

- **Scheduling.** To adapt charging to your needs and/or to the electricity tariff, the charging session can be scheduled through the website.
- **Remotely activate charging.** You can remotely activate charging through an external ON/OFF signal (a timer, for example).
- Flexible identification. The user can show their RFID card before or after connecting their vehicle. This feature can also be disabled in order to use the Plug and Charge mode.
- **Customisation.** It is easy to customise the system with branding thanks to the space at the front.

#### **General Specifications**

| Network connection          | Ethernet 10/100BaseTX (TCP-IP)                                |
|-----------------------------|---|
| Wireless communication      | Wi-Fi 2.4GHz (IEEE 802.11b/g/n)                               |
| Interface protocol          | OCPP 1.6J / 2.0 HW Ready                                      |
| Protections                 | 6 mADC leakage detection                                      |
| Enclosure rating            | IP54 / IK10*  |
| Enclosure material          | ABS / PC  |
| Operating temperature       | -5 °C to +45 °C   |
| Ambient temperature storage | -40 °C to +60 °C  |
| Operating humidity          | 5% to 95% Non-condensing                                      |
| Light beacon                | LED colour indicator  |
| Power limit control         | Mode 3 PWM control according to IEC 61851-1                   |
| RFID reader                 | ISO/IEC 14443 A&B<br>FeliCa<br>ISO/IEC 15693<br>ISO/IEC 18092 |
| Meter                       | MID Class 1 - EN50470-3                                       |
| Display                     | 3,5" colour screen  |
| Dimensions (D x W x H)      | 200 x 335 x 315 mm  |
| Weight                      | 4 kg  |
| Safety protection           | Welded contactor detection                                    |
|                             |   |

| Optional devices         |                                  |
|--------------------------|----------------------------------|
| Low temperature kit      | -30 °C to +45 °C                 |
| Protections              | RCBO (RCD Type A + MCB)          |
| Power limit control*     | Home BeON sensor                 |
| Type 2 socket protection | Shutter                          |
| Tethered cable           | Type 1 straight + cable roller   |
|                          | Type 1 spring + connector holder |
|                          | Type 2 straight + cable roller   |
|                          | Type 2 spring + connector holder |
| Cellular communication   | Modem 4G / 3G / GPRS / GSM       |
| Pedestal                 |                                  |
| Customisation            | Logo customisation               |

\*Single-phase models only.

\*IK08 in some components appended to the body, i.e., beacon light.

| Model                             | S                                  | т                                  |
|-----------------------------------|------------------------------------|------------------------------------|
| AC power supply                   | 1P + N + PE                        | 3P + N + PE                        |
| AC input voltage                  | 230 VAC +/-10%                     | 400 VAC +/- 10%                    |
| Maximum input current             | 32 A                               | 32 A                               |
| Maximum input power               | 7.4 kW                             | 22 kW                              |
| Number of plugs                   | 1                                  | 1                                  |
| Maximum output power per outlet   | 7.4 kW                             | 22 kW                              |
| Maximum output current per outlet | 32 A                               | 32 A                               |
| AC output voltage                 | 230 VAC (1P + N + PE)              | 400 VAC (3P + N + PE)              |
| Socket Type                       | 1 x Type 2 Socket (locking system) | 1 x Type 2 Socket (locking system) |
|                                   |                                    |                                    |

# Wallbox eNext Park

The ultimate design for a Wallbox with communications

#### Application

Designed to be installed (both indoors and outdoors) at workplaces and car parks.

#### **Concept Design**

Nowadays, the concept of an intelligent car park combined with sophisticated users demands intelligent EV chargers with the possibility of having connection to a cloud-based software or backend system.

In terms of the exterior design, we kept black and white as the core design colours while introducing curved lines and rounded shapes. The appropriate proportions and the perfect size, along with the piano black combined with matt white makes the eNext series the best choice to match any wall.



#### **Product highlights**

#### For Charge Point Operators / Owners

- The **Integrated Load Management** allows for a lower TCO (Total Cost of Ownership) by charging two EVs simultaneously even when the charger is not supplied with its maximum output power.
- The charger's **housing** is made of ABS plastic which is both robust and UV resistant, providing protection against mechanical stress and severe environmental conditions.
- In terms of **communications**, either through the Ethernet port (by default) or 4G/3G/ GPRS modem (optional), the charger can be connected to a back-office system (by means of OCPP), obtaining benefits such as user management, billing, remote error diagnostics, etc.
- Ready for Dynamic Load Management network integration. The Wallbox eNext Park series can be integrated with Circontrol's SCADA software, making simultaneous EV charging easier, faster and cheaper.

#### For Charge Point Users

- Clear charging instructions and operating status are shown using a backlit display, increasing user satisfaction, especially useful when the charger has been previously reserved by another user.
- The Wallbox eNext Park series offers **flexible authentication**, meaning that the user can authenticate either before or after connecting the cable to the EV. Additionally, the authentication process can also be disabled for the Plug 'n' Charge mode.

### Wallbox eNext Park Series

#### **General Specifications**

| Network connection                      | 10/100BaseTX (TCP-IP)   |  |  |
|---|---|--|--|
| Interface protocol                      | OCPP 1.5 / 1.6J   |  |  |
| Enclosure rating                        | IP54 / IK10*  |  |  |
| Enclosure material                      | ABS / PC  |  |  |
| Operating temperature                   | -5°C to 45°C  |  |  |
| Ambient temperature storage             | $-40^{\circ}\text{C} \text{ to } + 60\text{C}^{\circ}$                                  |  |  |
| Operating humidity                      | 5% to 95% Non-condensing  |  |  |
| Light beacon                            | RGB colour indicator  |  |  |
| Display                                 | Multi-language LCD<br>Mode 3 PWM control according to<br>ISO/IEC 61851-1                |  |  |
| Power limit control                     |   |  |  |
| Dimensions (D x W x H)                  | 200x335x315mm   |  |  |
| Weight                                  | 4kg   |  |  |
| RFID Reader                             | ISO / IEC14443A<br>MIFARE Classic/DESFire EV1<br>ISO 18092 / ECMA - 340<br>NFC 13.56MHz |  |  |
| Meter                                   | MID Class 1 - EN50470-3   |  |  |
| Type 2 socket protection Locking system |   |  |  |
| *IK08 in some components appen          | ded to the body, i.e., beacon light.  |  |  |
|   |   |  |  |

| Optional devices         |                                  |  |
|--------------------------|----------------------------------|--|
| Low temperature kit      | -30 °C to +45 °C                 |  |
| Type 2 socket protection | Shutter                          |  |
|                          | Type 1 straight + cable roller   |  |
| Tethered cable           | Type 1 spring + connector holder |  |
|                          | Type 2 straight + cable roller   |  |
|                          | Type 2 spring + connector holder |  |
| Wireless Communications  | 4G / 3G / GPRS / GSM             |  |
| Pedestal                 |                                  |  |
| Compatible with DML      |                                  |  |
| Customisation            | Logo customisation               |  |

| Mod         | el                         | S                     | Т                 | SME                        | ТМЕ                        | S Two                 |
|-------------|----------------------------|-----------------------|-------------------|----------------------------|----------------------------|-----------------------|
| AC p        | ower supply                | 1P + N + PE           | 3P + N + PE       | 1P + N + PE                | 3P + N + PE                | 1P + N + PE           |
| AC i        | nput voltage               | 230 VAC +/-10%        | 400 VAC +/-10%    | 230 VAC +/-10%             | 400 VAC +/-10%             | 230 VAC +/-10%        |
| Maxi        | mum input current          | 32 A                  | 32 A              | 32 A                       | 32 A                       | 64 A                  |
| Maxi        | mum input power            | 7.4 kW                | 22 kW             | 7.4 kW                     | 22 kW                      | 14.8 kW               |
| Num         | ber of plugs               | 1                     | 1                 | 2                          | 2                          | 2                     |
|             | Iltaneous charging<br>ions | 1                     | 1                 | 1                          | 1                          | 2                     |
| ۷           | Maximum output current     | 32 A                  | 32 A              | 32 A                       | 32 A                       | 32 A                  |
| Outlet      | Maximum output power       | 7.4 kW                | 22 kW             | 7.4 kW                     | 22 kW                      | 7.4 kW                |
| ō           | AC output voltage          | 230 VAC (1P + N + PE) | 400 VAC (3P+N+PE) | 230 VAC (1P + N + PE)      | 400 VAC (3P+N+PE)          | 230 VAC (1P + N + PE) |
| В           | Maximum output current     | -                     | -                 | 3.6 kW                     | 3.6 kW                     | 7.4 kW                |
| utlet       | Maximum output power       | -                     | -                 | 16 A                       | 16 A                       | 32 A                  |
| no          | AC output voltage          | -                     | -                 | 230 VAC (1P + N + PE)      | 230 VAC (1P + N + PE)      | 230 VAC (1P + N + PE) |
| Socket Type |                            | 1 x Type 2 Socket     | 1 x Type 2 Socket | 1 x Type 2 Socket<br>CEE/7 | 1 x Type 2 Socket<br>CEE/7 | 2 x Type 2 Socket     |
|             |                            |                       |                   |                            |                            |                       |
|             |                            | A                     | A                 | A B                        | A B                        | A B                   |

### **Wallbox Smart**

A suitable solution for improving user and operator experience

#### Application

Designed to be installed in both public access environments (urban spaces, shopping centres, car parks, airports...) and private areas (company fleets) where its intelligence and communications capabilities offer a range of possibilities that improve the user and/or operator experience.

#### **Concept Design**

Nowadays, the concept of an intelligent car park combined with sophisticated users demands intelligent EV chargers with the possibility of having connection to a cloud-based software or backend system.

Installing a Smart Wallbox network in a car park allows for intelligent energy management of several charging stations simultaneously when there is not enough power available for all of them.



#### Product highlights

#### For Charge Point Operators / Owners

- The **Integrated Load Management** allows for a lower TCO (Total Cost of Ownership) by charging two EVs simultaneously even when the charger is not supplied with its maximum output power.
- In terms of the charger's **housing, ABS plastic** has been selected. Its robust structural design provides protection against both mechanical stress and severe environmental conditions, increasing the charger's lifespan and meaning it does not need to replaced after just a few years.
- In terms of **communication**, either through the Ethernet port (by default) or 3G/GPRS modem (optional), the charger can be connected to a back-office system (by means of OCPP), obtaining benefits such as user management, billing, remote error diagnostics, etc.
- Ready for Dynamic Load Management network integration. The Wallbox Smart series can be integrated with Circontrol's SCADA software, making simultaneous EV charging easier, faster and cheaper.

#### For Charge Point Users

- Clear charging instructions and operating status are shown using a backlit display, increasing user satisfaction, especially useful when the charger has been previously reserved by another user.
- The Wallbox Smart series offers a **flexible authentication**, meaning that the user can authenticate either before or after connecting the cable to the EV. Additionally, the authentication process can also be disabled for a Plug 'n' Charge mode.

### Wallbox Smart Series

#### **General Specifications**

| Network connection          | 10/100BaseTX (TCP-IP)                           |
|-----------------------------|---|
| Interface protocol          | OCPP 1.5 / 1.6J                                 |
| Enclosure rating            | IP54 / IK10                                     |
| Enclosure material          | ABS   |
| Operating temperature       | -5°C to 45°C                                    |
| Ambient temperature storage | -40°C to +60C°                                  |
| Operating humidity          | 5% to 95% Non-condensing                        |
| Light beacon                | RGB colour indicator                            |
| Display                     | Multi-language LCD                              |
| Power limit control         | Mode 3 PWM control according to ISO/IEC 61851-1 |
| Dimensions (D x W x H)      | Single: 125x225x320 mm<br>Dual: 125x442x350 mm  |
| Weight                      | Single: 4 kg<br>Dual: 6 kg                      |
|                             |   |

| RFID Reader              | ISO / IEC14443A / B<br>MIFARE Classic/DESFire EV1<br>ISO 18092 / ECMA-340<br>NFC 13.56MHz |
|--------------------------|---|
| MID Meter                | MID Class 1 - EN50470-3   |
| Type 2 socket protection | Locking system  |
| Compatible with DLM      |   |
| Optional devices         |   |
| Low temperature kit      | -30°C to +45°C  |
| Cable support            | Optional (included at Wallbox with tethered cable)  |
| Pedestal                 | Single: for single-plug Wallbox<br>Dual: for dual-plugs Wallbox                           |
| Type 2 socket protection | Shutter   |
| Wireless Communication   | 4G / 3G / GPRS / GSM  |
|                          |   |

| Model                             | WBC-SMART                          | WBC32-SMART                        | WBMC-SMART                                     |
|-----------------------------------|------------------------------------|------------------------------------|--|
| AC power supply                   | 1P + N + PE                        | 1P + N + PE                        | 1P + N + PE                                    |
| AC Voltage                        | 230 VAC +/-10%                     | 230 VAC +/-10%                     | 230 VAC +/-10%                                 |
| Maximum input current             | 16 A                               | 32 A                               | 32 A   |
| Maximum input power               | 3.7 kW                             | 7.4 kW                             | 7.4 kW   |
| Number of plugs                   | 1                                  | 1                                  | 1  |
| Maximum output power per outlet   | 3.7 kW                             | 7.4 kW                             | 7.4 kW   |
| Maximum output current per outlet | 16 A                               | 32 A                               | 32 A   |
| AC output voltage                 | 230 VAC (1P + N + PE)              | 230 VAC (1P + N + PE)              | 230 VAC (1P + N + PE)                          |
| Connection                        | 1 x Type 1 Cable (5m)              | 1 x Type 1 Cable (5m)              | 1 x Type 2 Cable (5m) 🛞                        |
| Nodel                             | WBMC-SMART-TRI                     | WBM-SMART                          | WBM-SMART-TRI                                  |
| AC power supply                   | 3P + N + PE                        | 1P + N + PE                        | 3P + N + PE                                    |
| AC Voltage                        | 400 VAC +/-10%                     | 230 VAC +/-10%                     | 400 VAC +/-10%                                 |
| Maximum input current             | 32 A                               | 32 A                               | 32 A   |
| Maximum input power               | 22 kW                              | 7.4 kW                             | 22 kW  |
| Number of plugs                   | 1                                  | 1                                  | 1  |
| Maximum output power per outlet   | 22 kW                              | 7.4 kW                             | 22 kW  |
| Aaximum output current per outlet | 32 A                               | 32 A                               | 32 A   |
| AC output voltage                 | 400 VAC (3P+N+PE)                  | 230 VAC (1P + N + PE)              | 400 VAC (3P + N + PE)                          |
| Connection                        | 1 x Type 2 Cable (5m)              | 1 x Type 2 Socket<br>(lock system) | 1 x Type 2 Socket (lock system)                |
| Nodel                             | WB2M-SMART                         | WB2M-SMART-TRI                     | WB-MIX-SMART                                   |
| AC power supply                   | 1P + N + PE                        | 3P + N + PE                        | 1P + N + PE                                    |
| AC Voltage                        | 230 VAC +/-10%                     | 400 VAC +/-10%                     | 230VAC +/-10%                                  |
| Maximum input current             | 64 A                               | 64 A                               | 48 A   |
| /laximum input power              | 14.7 kW                            | 44 kW                              | 11 kW  |
| Number of plugs                   | 2                                  | 2                                  | 2  |
| Maximum output power              | 7.4 kW                             | 22 kW                              | 7.4 kW   |
| Maximum output power              | 32 A                               | 32 A                               | 32 A   |
| Maximum output power              | 7.4 kW                             | 22 kW                              | 3.7 kW   |
| Maximum output current            | 32 A                               | 32 A                               | 16 A   |
| AC output voltage                 | 230 VAC (1P + N + PE)              | 400 VAC (3P + N + PE)              | 230 VAC (1P + N + PE)                          |
| Connection                        | 2 x Type 2 Socket<br>(lock system) | 2 x Type 2 Socket<br>(lock system) | 1 x Type 2 Socket<br>(lock system) + 1 x CEE/7 |

# Wallbox eVolve Smart

The perfect combination of robustness, design and communications

#### Application

Designed to be installed in both public access environments (urban spaces, shopping centres, car parks, airports, petrol stations...) and private areas (companies, community car park sites...) where its intelligent capabilities offer a range of possibilities which improve the user and/or operator experience.

#### **Concept Design**

Nowadays, the concept of smart cities demands an innovative design for urban equipment, especially for EVSE (EV Supply Equipment) due to its innovative nature. With its stylised shape and modern lines, the eVolve series meets this demand.

In addition, not only has the exterior design been taken into account, but also the daily conditions (operational and environmental) that EVSE has to withstand.

#### **Product highlights**

#### For Charge Point **Operators / Owners**

- The **Integrated Load Management** allows for a lower TCO (Total Cost of Ownership) by charging two EVs simultaneously.
- The door at the front with **key access** provides easy access to the interior of the charger which results in a lower OPEX (operating expense) due to a quicker installation and service (preventive/corrective). Moreover, it allows the charger to be installed next to a wall, optimising the available space.
- In terms of the charger's **housing**, aluminium and ABS plastic have been combined in a robust structural design that provides protection against both mechanical stress and severe environmental conditions, increasing the charger's lifespan, meaning it will not need to be replaces after just a few years.
- In terms of **communication**, either through the Ethernet port (by default) or 4G/3G/ GPRS modem (optional), the charger can be connected to a back-office system (by means of OCPP), obtaining benefits such as user management, billing, remote error diagnostics, etc.
- To comply with the most demanding requirements regarding billing, the eVolve series includes **MID certified metres**.
- Available in **two sizes**, a small one with no protections and a large one with protections.

#### For Charge Point Users

 Clear charging instructions and operating status are shown using a **backlit display**, increasing user satisfaction, especially useful when the charger has been previously reserved by another user.

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- eVolve series offers a **flexible authentication**, meaning that the user can authenticate either before or after the cable to the EV. Additionally, the authentication process can also be disabled for a Plug 'n' Charge mode.
- Accessibility for disabled users has also been considered, complying with international standards regarding the height of connectors/ displays, facilitating their use.
- The eVolve series includes the necessary electrical protections (optional) not only to minimise the human safety risk of electrical shocks but also to ensure the maximum uptime thanks to independent protections per connector.



#### **General Specifications**

| Network connection          | 10/100BaseTX (TCP-IP)  |
|-----------------------------|--|
| Interface protocol          | OCPP 1.5 / 1.6J  |
| Enclosure rating            | IP54 / IK10  |
| Enclosure material          | Aluminium & ABS  |
| Enclosure door lock         | Anti-vandal key  |
| Enclosure access            | Frontal door   |
| Operating temperature       | -5 °C to + 45 °C   |
| Ambient temperature storage | -40 °C to + 60 °C  |
| Operating humidity          | 5% to 95% Non-condensing   |
| Light beacon                | RGB colour indicator   |
| Display                     | Multi-language LCD   |
| Power limit control         | Mode 3 PWM control according to ISO/IEC 61851-1  |
| Dimensions (D x W x H)      | Small: 222x382x628 mm<br><i>(Model S &amp; T without protections)</i><br>Large: 222x382x928 mm |
| Weight                      | Small: 25 kg<br>Large: 30 kg   |
| RFID Reader                 | ISO / IEC14443A / B<br>MIFARE Classic/DESFire EV1<br>ISO 18092 / ECMA-340<br>NFC 13.56MHz      |

| Meter  | MID Class 1 - EN50470-3  |
|--|--|
| Power output management                                | Integrated Load Management   |
| Type 2 socket protection                               | Locking System   |
| Compatible with DLM                                    |  |
| Optional devices                                       |  |
| Low temperature kit                                    | -30 °C to +45 °C   |
| Overcurrent protection*                                | MCB (curve C)  |
| Electrical protection*                                 | RCD Type A (30mA)<br>RCD Type A (30mA) + 6mA DC<br>RCD Type B (30mA)<br>Autorecovery function optional** |
| Type 2 socket protection                               | Shutter  |
| Wireless Communication                                 | 4G / 3G / GPRS / GSM   |
| <b>Tethered Cable</b> (spring)*<br>(Cable length: 4 m) | Туре 1 + Туре 1<br>Туре 2 + Туре 2   |
| RFID Extension   | Legic Advant / Legic Prime<br>ISO 15693 / ISO 18092, Sony FeliCa   |
| Customisation  | Frontal Labelling  |
|  |  |

\*Not available in the TM4 model

\*\*As per directive this function is not available for cable. It is also not compatible with the "RCD Type A + 6mA DC" option.

| Model           |                           |                  | S                                 | Т                                 | TM4                               |                       |
|-----------------|---------------------------|------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------|
| AC power supply |                           | ipply            | 1P + N + PE                       | 3P + N + PE                       | 3P + N + PE                       |                       |
| AC              | input vol                 | tage             | 230 VAC +/-10%                    | 400 VAC +/-10%                    | 400 VAC +/-10%                    |                       |
| Max             | kimum inp                 | put current      | 64 A                              | 64 A                              | 64 A                              |                       |
| Max             | kimum inp                 | put power        | 14.7 kW                           | 44 kW                             | 44 kW                             |                       |
| Nur             | nber of pl                | lugs             | 2                                 | 2                                 | 4                                 |                       |
| ۷               | Maximu                    | m output current | 32 A                              | 32 A                              | 32 A                              | 16 A                  |
| utlet           | Maximum output power      |                  | 7.4 kW                            | 22 kW                             | 22 kW                             | 3.7 kW                |
| õ               | AC outp                   | out voltage      | 230 VAC (1P + N + PE)             | 400 VAC (3P + N + PE)             | 400 VAC (3P + N + PE)             | 230 VAC (1P + N + PE) |
| m               | Maximum output current 32 |                  | 32 A                              | 32 A 32 A                         |                                   | 16 A                  |
| Outlet          | Maximum output power      |                  | 7.4 kW                            | 22 kW                             | 22 kW                             | 3.7 kW                |
| no              | AC output voltage         |                  | 230 VAC (1P + N + PE)             | 400 VAC (3P + N + PE)             | 400 VAC (3P + N + PE)             | 230 VAC (1P + N + PE) |
| Pro             | tections                  | Small            | No                                | No                                | Not Available                     |                       |
| 110             | 100110113                 | Large            | Yes                               | Yes                               | No                                |                       |
| Cor             | Connection                |                  | 2x Type 2 Socket<br>(lock system) | 2x Type 2 Socket<br>(lock system) | 2x Type 2 Socket (lock<br>system) | 2x CEE/7              |
|                 |                           |                  | A B                               | A B                               |                                   | B                     |

# **Post eVolve Smart**

The most suitable charger for urban environments

#### Application

Designed to be installed in both public access environments (urban spaces, shopping centres, car parks, airports, petrol stations...) and private areas (companies, community car park sites...) where its intelligent capabilities offer a range of possibilities which improve the user and/or operator experience.

#### **Concept Design**

Nowadays, the concept of smart cities demands an innovative design for its urban equipment, especially for EVSE (EV Supply Equipment) due to its innovative nature. With its stylised shape and modern lines, the eVolve series meets this demand.

In addition, not only has the exterior design been taken into account, but also the daily conditions (operational and environmental) that EVSE has to withstand.

#### **Product highlights**

#### For Charge Point Operators / Owners

- The Integrated Load Management allows for a lower TCO (Total Cost of Ownership) by charging two EVs simultaneously even when the charger is not supplied with its maximum output power.
- The door at the front with **key access** provides an access to the interior of the charger which results in a lower OPEX (operating expense) due to a quicker installation and service (preventive/corrective). Moreover, it allows the charger to be installed next to a wall, optimising the available space.
- In terms of the charger's **housing**, aluminium and ABS plastic have been combined in a robust structural design that provides protection against both mechanical stress and severe environmental conditions, increasing the charger's lifespan, meaning it will not need to be replaces after just a few years.
- In terms of **communication**, either through the Ethernet port (by default) or 4G/3G/ GPRS modem (optional), the charger can be connected to a back-office system (by means of OCPP), obtaining benefits such as user management, billing, remote error diagnostics, etc.
- To comply with the most demanding requirements regarding billing, the eVolve series includes **MID certified metres.**

#### For Charge Point Users

 Clear charging instructions and operating status are shown using a **backlit display**, increasing user satisfaction, especially useful when the charger has been previously reserved by another user.

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- eVolve series offers a **flexible authentication**, meaning that the user can authenticate either before or after the cable to the EV. Additionally, the authentication process can also be disabled for a Plug 'n' Charge mode.
- Accessibility for disabled users has also been considered, complying with international standards regarding the height of connectors/ displays, facilitating their use.
- The eVolve series includes the necessary electrical protections not only to minimise the human safety risk of electrical shock, but also to ensure the maximum uptime thanks to independent protections per connector.

### **Post eVolve Smart** Series

#### **General Specifications**

| Network connection          | 10/100BaseTX (TCP-IP)   |
|-----------------------------|---|
| Interface protocol          | OCPP 1.5 / 1.6J   |
| Enclosure rating            | IP54 / IK10   |
| Enclosure material          | Aluminium & ABS   |
| Enclosure door lock         | Anti-vandal key   |
| Enclosure access            | Frontal door  |
| Operating temperature       | -5 °C to +45 °C   |
| Ambient temperature storage | -40 °C to +60 °C  |
| Operating humidity          | 5% to 95% Non-condensing  |
| Light beacon                | RGB colour indicator  |
| Display                     | Multi-language LCD  |
| Power limit control         | Mode 3 PWM control according to ISO/IEC 61851-1   |
| Dimensions (D x W x H)      | 290x450x1550 mm   |
| Weight                      | 55 kg   |
| RFID Reader                 | ISO / IEC14443A / B<br>MIFARE Classic/DESFire EV1<br>ISO 18092 / ECMA-340<br>NFC 13.56MHz |
| Meter                       | MID Class 1 - EN50470-3   |
| Power output management     | Integrated Load Management  |
|                             |   |

| Overcurrent protection                                | MCB (curve C)   |
|---|---|
| Safety protection                                     | RCD Type A (30mA)<br>Autorecovery function optional*                                    |
| Type 2 socket protection                              | Locking System  |
| Compatible with DLM                                   |   |
| Optional devices                                      |   |
| Low temperature kit                                   | -30 °C to +45 °C  |
| Safety protection                                     | RCD Type A (30mA) + 6mA DC<br>RCD Type B (30mA) with<br>autorecovery function optional* |
| Surge protection                                      | Four pole transient surge protector<br>IEC 61643-1 (class II)                           |
| Type 2 charging socket                                | Shutter   |
| Wireless Communication                                | 4G / 3G / GPRS / GSM  |
| Anti-vandal door**                                    | Electromagnetic locking system  |
| <b>Tethered Cable</b> (spring)<br>(Cable length: 4 m) | Type 1 + Type 1<br>Type 2+ Type 2<br>Type 2 + Type 2 Socket                             |
| RFID Extension  | Legic Advant / Legic Prime<br>ISO 15693 / ISO 18092, Sony FeliCa                        |
| Customisation   | Frontal Labelling   |

\*As per regulations this function is not available for cable. \*\* Not available for TM4.

#### **Model Specifications**

| Мос        |                        | S                                 | т —                               | TM4                               |                          | C63 One               |
|------------|------------------------|-----------------------------------|-----------------------------------|-----------------------------------|--------------------------|-----------------------|
|            | power supply           | 3<br>1P + N + PE                  | 3P + N + PE                       | 3P + N + PE                       |                          | 3P + N + PE           |
|            |                        |                                   |                                   |                                   |                          |                       |
| AC         | input voltage          | 230 VAC +/-10%                    | 400 VAC +/-10%                    | 400 VAC +/-10%                    |                          | 400 VAC +/-10%        |
| Мах        | timum input current    | 64 A                              | 64 A                              | 64 A                              |                          | 63 A                  |
| Мах        | timum input power      | 14.7 kW                           | 44 kW                             | 44 kW                             |                          | 43 kW                 |
| Nun        | nber of plugs          | 2                                 | 2                                 | 4*                                |                          | 1                     |
| 4          | Maximum output current | 32 A                              | 32 A                              | 32 A                              | 16 A                     | 63 A                  |
| Outlet     | Maximum output power   | 7.4 kW                            | 22 kW                             | 22 kW                             | 3.7 kW                   | 43 kW                 |
| Out        | AC output voltage      | 230 VAC (1P + N + PE)             | 400 VAC (3P + N + PE)             | 400 VAC<br>(3P + N + PE)          | 230 VAC<br>(1P + N + PE) | 400 VAC (3P + N + PE) |
| m          | Maximum output current | 32 A                              | 32 A                              | 32 A                              | 16 A                     |                       |
|            | Maximum output power   | 7.4 kW                            | 22 kW                             | 22 kW                             | 3.7 kW                   |                       |
| Outlet     | AC output voltage      | 230 VAC (1P + N + PE)             | 400 VAC (3P + N + PE)             | 400 VAC<br>(3P + N + PE)          | 230 VAC<br>(1P + N + PE) |                       |
| Connection |                        | 2x Type 2 Socket<br>(lock system) | 2x Type 2 Socket<br>(lock system) | 2x Type 2 Socket<br>(lock system) | 2x CEE/7                 | Type 2 Cable (4m)     |
|            |                        | A B                               | A B                               |                                   | B                        | A                     |

#### **Customisation Examples**

The eVolve series features a broad frontal panel that can be easily customised.





\* Exclusive use type 2 or CEE/7 per outlet

### **Master - Slave**

The most cost-effective multiple charging solution

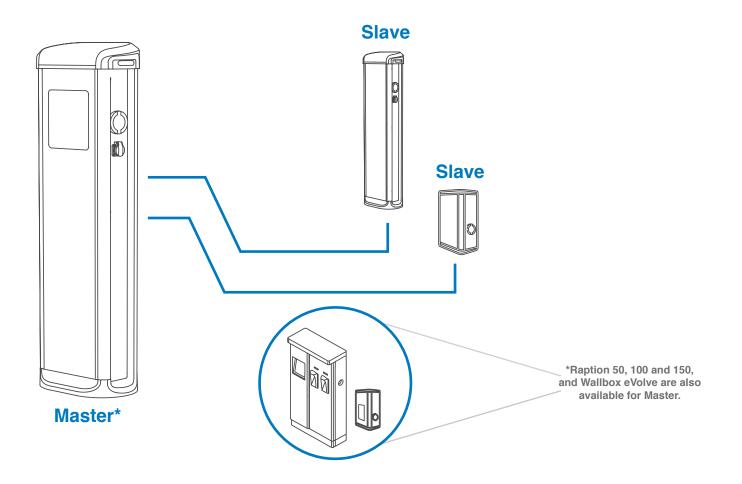
#### Application

Designed to minimise the initial investment (CAPEX) and the operating expenses (OPEX) when several chargers are required, this solution is a combination of a Master charger and a set of Slaves controlled by this Master. The whole system works as if all the chargers had smart capabilities.

Suitable for private installations such as company fleets or communities with a single administrator, and also for public access environment such as shopping centers, car parks, airports and others.

#### **Concept Design**

It has the same exterior design concept as the acclaimed eVolve series, and in addition to featuring modern lines and robust housing, harsh weather conditions and user-friendly operation have also been considered.



#### **Product highlights**

- The Master charger is **capable of balancing the available power** based on the number of charge points in use, thus the total power required to provide the total load becomes substantially reduced. This makes it possible to reduce costs in the electrical installation setup and a cost saving on the contracted energy.
- Also, by centralising the smart capabilities into the Master, the hardware of the Slaves is reduced, so combining Master-Slave is the **best choice to minimise the hardware cost.**
- A **single modem** in the Master unit can be used for remote connection and back-office system integration (by means of OCPP 1.5 or 1.6J), so communication fees are also reduced avoiding extra OPEX cost.
- The Master can operate up to 8 Slaves (max. 18 charging points including the Master) managing the load and user authentication.
- For car parks without OCPP backend system, standalone configuration offers a **load balancing feature and user control through RFID.**

- The door at the front with **key access** provides an access to the interior of the charger which results in a lower OPEX (operating expense) due to quicker installation and service (preventive/corrective). Moreover, it allows the charger to be installed next to a wall optimising the available space.
- Its **8" daylight readable touchscreen** not only provides clear charging instructions (e.g. incorrect EV shift position to start the charge) and operating status (e.g. reserved charge point) but also allows the user to select from several languages.
- To comply with the most demanding requirements regarding billing, the eVolve series includes **MID certified metres.**
- The eVolve series include the necessary electrical protections not only to minimise the human safety risk of electric shocks, but also to ensure the maximum uptime thanks to independent protections per connector.
- Integrated contactless payment system: Offers an easy, intuitive and contactless card payment experience. (Available only for Post)

#### **Master-Slave Post**



#### **Master-Slave Wallbox**



### Master - Slave Post

#### **General Specifications**

| Enclosure rating            | IP54 / IK10                                     |
|-----------------------------|---|
| Enclosure material          | Aluminium & ABS                                 |
| Enclosure door lock         | Anti-vandal key                                 |
| Enclosure access            | Frontal door                                    |
| Operating temperature       | -5 °C to + 45 °C                                |
| Ambient temperature storage | -20 °C to + 60 °C                               |
| Operating humidity          | 5% to 95% Non-condensing                        |
| Meter                       | MID Class 1 - EN50470-3                         |
| Light beacon                | RGB colour indicator                            |
| Power limit control         | Mode 3 PWM control according to ISO/IEC 61851-1 |
| Dimensions                  | 450 x 290 x 1550 mm                             |
| Weight                      | 55 kg   |
| Power Output Management     | Integrated Load Management                      |
| Overcurrent protection      | MCB (Curve C)                                   |
| Safety protection           | RCD Type A (30mA)                               |
| Type 2 socket protection    | Locking System                                  |
|                             |   |

| Master             |   |
|--------------------|---|
| Network connection | 10/100TX (TCP-IP)   |
| Interface protocol | OCPP 1.5 / 1.6J   |
| Display HMI        | 8" anti-vandal touchscreen  |
| RFID Reader        | ISO/IEC 14443 A/B<br>MIFARE Classic/DESFire EV1<br>ISO 18092 ECMA-340<br>NFC 16.53MHz |

| Slave                |              |
|----------------------|--------------|
| Master Communication | Ethernet UTP |

| Optional devices                               |   |  |
|--|---|--|
| Low Temperature Kit                            | -30 °C to +45 °C  |  |
| Safety Protection                              | RCD Type A + 6mA DC<br>RCD Type B (30mA)                            |  |
| Surge Protection                               | Four pole transient surge protector<br>IEC 61643-1 (class II)       |  |
| Type 2 socket protection                       | Shutter   |  |
| <b>Wireless communication</b> (only in Master) | EMEA - 4G LTE/WiFi Hotspot/GPRS/GSM<br>LATAM/APAC - 4G LTE/GPRS/GSM |  |
| Tethered cable (spring)                        | Туре 1 + Туре 1   |  |
| (cable length: 4m)                             | Туре 2 + Туре 2   |  |
| Network hub                                    | Switch TCP ethernet 8 ports   |  |
| (only available in Master)                     | Switch TCP ethernet 12 ports  |  |
| RFID Extension                                 | Legic Advant / Legic Prime<br>ISO 15693 / ISO 18092, Sony FeliCa    |  |
| Customisation                                  | Frontal Labelling   |  |
| Contactless payment*                           | Integrated credit card payment terminal                             |  |
| * Ack for availability                         |   |  |

\* Ask for availability



| Mode           | ls                     | Master or Slave<br>S           | Master or Slave<br>T           | Master or Slave<br>C63 One |
|----------------|------------------------|--------------------------------|--------------------------------|----------------------------|
| AC po          | ower supply            | 1P + N + PE                    | 3P + N + PE                    | 3P + N + PE                |
| AC in          | put voltage            | 230 VAC +/-10%                 | 400 VAC +/-10%                 | 400 VAC +/-10%             |
| Maxir          | num input current      | 64 A                           | 64 A                           | 63 A                       |
| Maxir          | num input power        | 14.8 kW                        | 44 kW                          | 44 kW                      |
| Numb           | per of plugs           | 2                              | 2                              | 1                          |
|                | Maximum output current | 32 A                           | 32 A                           | 63 A                       |
| Dutlet         | Maximum output power   | 7.4 kW                         | 22 kW                          | 43 kW                      |
| õ,             | AC output voltage      | 230 VAC (1P + N + PE)          | 400 VAC (3P + N + PE)          | 400 VAC (3P + N + PE)      |
| Uutlet B<br>Ma | Maximum output current | 32 A                           | 32 A                           |                            |
|                | Maximum output power   | 7.4 kW                         | 22 kW                          |                            |
|                | AC output voltage      | 230 VAC (1P + N + PE)          | 400 VAC (3P + N + PE)          |                            |
| Conne          | Master                 | 2x Type 2 Socket (lock system) | 2x Type 2 Socket (lock system) | 1 x Type 2 Cable (4m)      |
| Jonne          | Slave                  | 2x Type 2 Socket (lock system) | 2x Type 2 Socket (lock system) |                            |

### Master - Slave Wallbox

#### **General Specifications**

| Enclosure rating            | IP54 / IK10   |
|-----------------------------|---|
| Enclosure material          | Aluminium & ABS   |
| Enclosure door lock         | Anti-vandal key   |
| Enclosure access            | Frontal door  |
| Operating temperature       | -5 °C to + 45 °C  |
| Ambient temperature storage | -20 °C to + 60 °C   |
| Operating humidity          | 5% to 95% Non-condensing  |
| Meter                       | MID Class 1 - EN50470-3   |
| Light beacon                | RGB colour indicator  |
| Power limit control         | Mode 3 PWM control according to ISO/IEC 61851-1   |
| Dimensions                  | Small: 222 x 382 x 628 mm<br><u>(only available on Master Zero</u><br><u>and on Slave S)</u><br>Large: 222 x 382 x 928 mm |
| Weight                      | Small: 25 kg<br>Large: 30 Kg  |
| Power Output Management     | Integrated Load Management  |
| Type 2 socket protection    | Locking System  |
| М                           | aster   |
| Network connection          | 10/100TX (TCP-IP)   |
| Interface protocol          | OCPP 1.5 / 1.6J   |
| Display HMI                 | 8" anti-vandal touchscreen  |
| RFID Reader                 | ISO/IEC 14443 A/B<br>MIFARE Classic/DESFire EV1<br>ISO 18092 ECMA-340<br>NFC 16.53MHz                                     |
| S                           | lave  |
| Master Communication        | Ethernet UTP  |

| Optional devices  |  |  |
|---|--|--|
| Low Temperature Kit   | -30 °C to +45 °C   |  |
| Overcurrent protection  | MCB (curve C)  |  |
| Electrical protection   | RCD Type A (30mA)<br>RCD Type A (30mA) + 6mA DC<br>RCD Type B (30mA) |  |
| Type 2 charging socket  | Shutter  |  |
| Wireless communication (only in Master)   | EMEA - 4G LTE/WiFi Hotspot/GPRS/GSM<br>LATAM/APAC - 4G LTE/GPRS/GSM  |  |
| <b>Tethered cable</b> (spring)<br>Cable length: 4m<br>(only available in Slave) | Type 1 + Type 1  |  |
|   | Туре 2 + Туре 2  |  |
| RFID Extension  | Legic Advant / Legic Prime<br>ISO 15693 / ISO 18092, Sony FeliCa     |  |
| Customisation   | Frontal Labelling  |  |



| Мос   | leis                   | Master<br>Zero | Master or Slave<br>S           | Master or Slave<br>T           |
|-------|------------------------|----------------|--------------------------------|--------------------------------|
| AC    | power supply           | 1P + N + PE    | 1P + N + PE                    | 3P + N + PE                    |
| AC    | input voltage          | 230 VAC +/-10% | 230 VAC +/-10%                 | 400 VAC +/-10%                 |
| Max   | imum input current     | 0.15 mA        | 64 A                           | 64 A                           |
| Max   | imum input power       | 35 W           | 14.8 kW                        | 44 kW                          |
| Nun   | nber of plugs          | 0              | 2                              | 2                              |
| ٨     | Maximum output current |                | 32 A                           | 32 A                           |
| t     | Maximum output power   |                | 7.4 kW                         | 22 kW                          |
|       | AC output voltage      |                | 230 VAC (1P + N + PE)          | 400 VAC (3P + N + PE)          |
| В     | Maximum output current |                | 32 A                           | 32 A                           |
| Maxi  | Maximum output power   |                | 7.4 kW                         | 22 kW                          |
|       | AC output voltage      |                | 230 VAC (1P + N + PE)          | 400 VAC (3P + N + PE)          |
| Corr  | Master                 | Not available  | Check availability             | Check availability             |
| COIII | Slave                  | Not available  | 2x Type 2 Socket (lock system) | 2x Type 2 Socket (lock system) |

# eVolve Rapid

The most compact and affordable DC charging solution

#### Application

The eVolve Rapid series is designed to bring fast charging to small private sites that do not have access to large high-power electricity infrastructure (small EV fleets, car dealerships, carsharing companies, small private car parks, etc.) to improve the charging speed of electric vehicles at these locations without large investments.

#### **Concept Design**

Thanks to Circontrol's years of experience in the field of slow and/or semi-fast public charging, as well as its fast-charging Raption series, the eVolve Rapid series has been launched as a fast-charging solution that is perfect for small private locations and features two models for wall or floor installation (wallbox and post).

Designed to reduce charging times for electric vehicles with larger batteries, which will go from having a range of just over 40 or 60 km (depending on the model) if charged on AC for one hour to being able to travel nearly 150 km with the same charging time and the same enclosure.

#### **Product highlights**

- Simple operation thanks to the '**Free to Charge**' mode, allowing the user to forgo authentication.
- Fast, straightforward interaction with the charger through two **Start/Stop buttons** with LED indicators that guide the user through each step of the charging process.
- Its **RGB light bar** enables the user to see the charger status (free, error, charging or completed) at a glance.
- Its aluminium and ABS plastic enclosure provides protection against mechanical stress and severe weather conditions, offering greater durability and preventing it from needing replacement in the short term.
- Its compact exterior design is typical of an AC charger, however, because it provides up to 25 kW DC, it is able to reduce charging time by half or even two-thirds for increased user satisfaction.

 Its lockable front door enables easy access to the inside of the charger for **faster installation** and maintenance. The charger can also be installed next to a wall to optimise available space.

EV Quick Charger 25kW

6. CIRCONTROL

G. CIRCONTROL

- Developed with **future-proof technology to charge using a broad voltage scale** (from 200 to 920 V), it is capable of charging both new small electric cars and heavy vehicles such as electric buses and lorries.
- The eVolve Rapid series includes optional **electrical safeguards**, not only to minimise the risk of electric shock, but also to deactivate the device on site, which reduces operating costs (OpEx) during technical maintenance or repair services.
- Lower energy consumption and therefore lower OpEx — due to **sustained high efficiency** since the power module is disconnected when the electric vehicle no longer requires energy for charging.

### eVolve Rapid Series

#### **General Specifications**

| AC Power Supply                | 3P + N + PE   |
|--------------------------------|---|
| AC Input V                     | 400V +/- 10% three-phase  |
| Power Factor                   | > 0.98  |
| Efficiency                     | 94% at nominal output power   |
| Frequency                      | 50 / 60Hz   |
| Required power supply capacity | 27 kVA  |
| Maximum AC input current       | 39 A  |
| Maximum output power           | 25 kW   |
| Maximum output current         | 70 A  |
| Output voltage                 | 150-920 Vdc   |
| Compliance                     | CE / Combo-2<br>(DIN 70121; ISO15118)<br>IEC61851-1; IEC61851-23<br>IEC61851-21-2 |
|                                |   |

| Enclosure material                   | Aluminium & ABS                          |
|--------------------------------------|--|
| Enclosure rating                     | IP54 & IK10                              |
| Operating Humidity                   | Up to 95%                                |
| Ambient temperature storage          | -40 °C to +60 °C                         |
| Lights for status indication         | RGB colour indicator                     |
| Start / Stop system                  | Physical button with indicator led light |
| Enclosure door lock                  | Key lock                                 |
| Charge cable length                  | 5.5 metres                               |
| Optional devices                     |  |
| Customisation                        | Frontal labelling                        |
| Safety Protections<br>(only wallbox) | RCD type B 30mA<br>MCB curve C           |
|                                      |  |

| Models   | Post CCS                                     | Wallbox CCS        |
|--|--|--------------------|
| Safety Protections     RCD type B 30mA       MCB curve C |  | -                  |
| Operating Temperature                                    | -35°C to +45°C (Low Temp. Kit)               | -5°C to +45°C      |
| Environment  | Outdoor                                      | Indoor             |
| Dimensions (W x H x D)                                   | 382 x 1750 x 236 mm                          | 382 x 984 x 236 mm |
| Weight   | 65 kg  | 52.6 kg            |
| Cable support  | Integrated connector holder and cable roller | Cable roller       |
| Connection   | CCS2   | CCS2               |
|  |  |                    |

# **Raption 50**

The perfect combination of power, design and reliability

#### Application

Designed to be installed in both public access environments (urban spaces, shopping centres, airports, road-side rest areas...) and private areas (companies with EV fleets, taxi ranks...) where vehicles need to be ready to continue their journey in less than half an hour.

#### **Concept Design**

Designed to address the main problem identified by charge point owners/ operators when fast charging (low uptime), the Raption 50 series is bases on state-of-the-art modular power technology.

Another key attribute considered was its exterior design. Sophisticated, slim and robust are just some adjectives that can be used to describe this series and features that make it ideal for any type of site (from the most stylish urban area to industrial sites).



#### **Product highlights**

#### For Charge Point Operators / Owners

- Its **modular power technology** ensures a very high uptime (reducing the non-operation expenditure), because in the event of a power module failure, the rest of the modules continue charging.
- Lower energy consumption (and therefore OPEX) is achieved due to a **sustained high efficiency level** resulting from disconnecting power modules when lower charging power is requested by the EV.
- The modular architecture allows **power scalability** from 25 kW to 50 kW to meet present and future EV battery demands.
- It offers a unique **connector care** concept by means of the connector locking feature (optional) and floating cable design, which reduces the risk of the cable breaking.
- The **double door** at the front with key access provides an easy access to the charger for quicker installation and service. Moreover, it allows the charger to be installed next to a wall, optimising the available space.
- Possible to configure as a **Master for the Master-Slave** solution (p. 22).
- **480 V model** available for Mexico and other countries in Latin America.

#### For Charge Point Users

- Its 8" anti-vandal daylight readable colour touchscreen not only provides clear charging instructions (e.g. incorrect EV shift position to start the charge) and operating status (e.g. reserved charge point), but it also allows the user to select from several languages.
- User satisfaction is also increased due to its **built-in courtesy light** which both facilitates locating the charge point in dark areas and reading the messages included on operator instruction labels.
- Accessibility for disabled users has also been considered, complying with international standards regarding the height of connectors/ displays, facilitating their use.
- Integrated contactless payment system: Offers an easy, intuitive and contactless card payment experience.

### Raption 50 Series

### **General Specifications**

| AC Power Supply             | 3P + N + PE  |
|-----------------------------|--|
| AC Voltage                  | 400V AC +/- 10%  |
| Power Factor                | >0.98  |
| Efficiency                  | 95% at nominal output power  |
| Frequency                   | 50 / 60 Hz   |
| Electrical input protection | Main breaker disconnection   |
| Overcurrent protection      | MCB  |
| Safety protection           | RCD Type B   |
| Network connection          | Ethernet 10/100BaseTX  |
| Interface protocol          | OCPP 1.5 / 1.6J, HW ready for update to OCPP 2.0                         |
| Compliance                  | CE / Combo-2<br>(DIN 70121; ISO15118)<br>IEC 61851-1; IEC 61851-23, 21-2 |
|                             | CHAdeMO compatible   |
|                             | Eichrechtskonform (German PTB certified)                                 |
| Enclosure rating            | IP54 / IK10  |
| Enclosure material          | Stainless steel  |
| Operating temperature       | -30 °C to +50 °C   |
| Ambient temperature storage | -40 °C to +60 °C   |
| Operating humidity          | 5% to 95% Non-condensing   |
| Socket protection           | Locking System   |
| RFID system                 | ISO / IEC14443-1/2/3 MIFARE Classic                                      |
| Display HMI                 | 8" anti-vandal colour touchscreen  |
|                             |  |

| Power limit control  | DC & AC by software   |
|--|---|
| Cable length   | 3 metres (CCS, CHA, AC)   |
| Lights for status indication   | RGB colour indicator  |
| Dimensions (D x W x H)   | 355x940x1800 mm (without cable engaged)   |
| Weight   | 235 kg  |
| Cooling system   | Air cooling fans  |
| Operational noise level  | < 55 dBA  |
| AC Meter   | Compliant with the EN 50470-1 and EN 50470-3 (MID EU)   |
| Wireless Communication EU  | 4G LTE/WiFi Hotspot/GPRS/GSM  |
| Optional devices   |   |
| Wireless Communication   | LATAM/APAC/4G LTE/GPRS/GSM  |
|  |   |
| Surge protection   | Four pole transient surge protector<br>IEC 61643-1 (class II)   |
| Surge protection Cable Length  |   |
|  | IEC 61643-1 (class II)  |
| Cable Length<br>Anti-vandal connector  | IEC 61643-1 (class II)<br>5.5 metres (all cables)<br>CHAdeMO, CCS   |
| Cable Length<br>Anti-vandal connector<br>protection  | IEC 61643-1 (class II)<br>5.5 metres (all cables)<br>CHAdeMO, CCS<br>(mechanical connector locking)   |
| Cable Length<br>Anti-vandal connector<br>protection<br>Type 2 charging socket  | IEC 61643-1 (class II)<br>5.5 metres (all cables)<br>CHAdeMO, CCS<br>(mechanical connector locking)<br>Shutter  |
| Cable Length<br>Anti-vandal connector<br>protection<br>Type 2 charging socket<br>25 kW DC version                                  | IEC 61643-1 (class II)<br>5.5 metres (all cables)<br>CHAdeMO, CCS<br>(mechanical connector locking)<br>Shutter<br>Power output DC of 25 kW  |
| Cable Length<br>Anti-vandal connector<br>protection<br>Type 2 charging socket<br>25 kW DC version                                  | IEC 61643-1 (class II)<br>5.5 metres (all cables)<br>CHAdeMO, CCS<br>(mechanical connector locking)<br>Shutter<br>Power output DC of 25 kW<br>Switch TCP ethernet 8 ports   |
| Cable Length<br>Anti-vandal connector<br>protection<br>Type 2 charging socket<br>25 kW DC version<br>Network hub                   | IEC 61643-1 (class II)<br>5.5 metres (all cables)<br>CHAdeMO, CCS<br>(mechanical connector locking)<br>Shutter<br>Power output DC of 25 kW<br>Switch TCP ethernet 8 ports<br>Switch TCP ethernet 12 ports<br>Legic Advant / Legic Prime                                     |
| Cable Length<br>Anti-vandal connector<br>protection<br>Type 2 charging socket<br>25 kW DC version<br>Network hub<br>RFID Extension | IEC 61643-1 (class II)<br>5.5 metres (all cables)<br>CHAdeMO, CCS<br>(mechanical connector locking)<br>Shutter<br>Power output DC of 25 kW<br>Switch TCP ethernet 8 ports<br>Switch TCP ethernet 12 ports<br>Legic Advant / Legic Prime<br>ISO 15693/ISO 18092. Sony FeliCa |

\* Ask for availability.

| Models                         | CCS                          | CCS T2C32  | C   | CS T2S32                                      |
|--------------------------------|------------------------------|--|---|---|
| Maximum AC input current       | 76 A (38 A*)                 | 108 A (70 A*)                                    | 108   | 3 A (70 A*)                                   |
| Required power supply capacity | 53 kVA (26 kVA*)             | 75 kVA (48 kVA*)                                 | 75  | kVA (48 kVA*)                                 |
| Maximum output power           | 50 kW (25 kW*)<br>(@400 VDC) | DC: 50 kW (25 kV<br>(@400 VDC)<br>AC: 22 kW      | (@4   | 2: 50 kW (25 kW*)<br>400 VDC)<br>2: 22 kW     |
| Output voltage range           | DC: 50 - 500 V               | DC: 50 - 500 V<br>AC: 400 V                      |   | 2: 50 - 500 V<br>2: 400 V                     |
| Maximum output current         | DC: 125 A (63 A*)            | DC: 125A (63 A*)<br>AC: 32 A                     |   | :: 125A (63 A*)<br>:: 32 A                    |
| Connection                     | CCS 2                        | CCS 2<br>Type 2 Tethered of                      |   | S 2<br>De 2 Socket (Lock system)              |
| Models                         | CCS CHA                      | CCS CHA T2S32                                    | CCS CHA T2C32                                 | CCS CHA T2C63                                 |
| Maximum AC input current       | 76 A (38 A*)                 | 108 A (70 A*)                                    | 108 A (70 A*)                                 | 138 A (101 A*)                                |
| Required power supply capacity | 53 kVA (26 kVA*)             | 75 kVA (48 kVA*)                                 | 75 kVA (48 kVA*)                              | 96 kVA (70 kVA*)                              |
| Maximum output power           | 50 kW (25 kW*)<br>(@400 VDC) | DC: 50 kW (25 kW*)<br>(@400 VDC)<br>AC: 22 kW    | DC: 50 kW (25 kW*)<br>(@400 VDC)<br>AC: 22 kW | DC: 50 kW (25 kW*)<br>(@400 VDC)<br>AC: 43 kW |
| Output voltage range           | DC: 50 - 500 V               | DC: 50 - 500 V<br>AC: 400 V                      | DC: 50 - 500 V<br>AC: 400 V                   | DC: 50 - 500 V<br>AC: 400 V                   |
| Maximum output current         | DC: 125 A (63 A*)            | DC: 125 A (63 A*)<br>AC: 32 A                    | DC: 125 A (63 A*)<br>AC: 32 A                 | DC: 125 A (63 A*)<br>AC: 63 A                 |
| Connection                     | CCS 2 - JEVS G105            | CCS 2 - JEVS G105<br>Type 2 Socket (Lock system) | CCS 2 - JEVS G105<br>Type 2 Tethered cable    | CCS 2 - JEVS G105<br>Type 2 Tethered cable    |

# **Raption 100**

Ideal to satisfy the rapid charging needs of new EVs

#### Application

Designed to be installed in both public access spaces (urban and inter-urban spaces, service areas...) and private ones (EV fleets, taxi ranks...) where EVs need to minimise their charge times as much as possible.

#### **Concept Design**

Designed to satisfy the rapid charging needs of new EV models with larger batteries capable of offering greater autonomy, but without sacrificing the design nor most of the features that defined its predecessor, the Raption 50: modular power technology, elegant yet robust design, user-friendliness and reliability.

#### **Product highlights**

#### For Charge Point Operators / Owners

- **Greater charging power:** Its 25 kW charging modules allow it to offer up to 100 kW, doubling the charging power of the Raption 50.
- Scalability and flexibility: Its modular architecture allows for power scalability of 50 kW or 100 kW depending on the contracted power, and for this power to be adapted to the growing battery sizes of new EV models. Furthermore, the modular power guarantees very high uptime, as if one of the modules fails, the others will keep working. Likewise, when an EV needs less charging power, modules can be disconnected and energy consumption reduced thanks to its sustained efficiency.
- **Compact and 100% customisable design:** It maintains the elegant, high-quality and robust enclosure of the Raption 50, one of the most highly rated charge points on the market.
- **Reduced OPEX:** It maintains features such as the connector locking and the floating cable design, which result in increased durability. Furthermore, the door at the front with key access reduces repair and maintenance times and allows the charger to be installed next to a wall, optimising the available space.
- **Configurable as a Master:** Can be configured as a Master for multi-point solutions.

#### For Charge Point Users

• 8-inch colour touch screen: The user receives clear charging instructions as well as the connector status on the touch screen. It also allows the user to select from several languages.

**\*** RAPTION 100

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- **Built-in courtesy light:** Facilitates locating the charge point in dark areas and reading the operator instructions.
- **Accessibility:** The height of the connectors and the screen have been adapted to comply with standards in order to improve accessibility for disabled people.
- **Integrated contactless payment system:** Offers an easy, intuitive and contactless card payment experience.

### Raption 100 Series

#### **General Specifications**

| AC Power Supply             | 3P + N + PE   |
|-----------------------------|---|
| AC Voltage                  | 400V AC +/- 10%   |
| Power Factor                | >0.98   |
| Efficiency                  | 95% at nominal output power   |
| Frequency                   | 50 / 60 Hz  |
| Electrical input protection | Main breaker disconnection  |
| Overcurrent protection      | MCB   |
| Safety protection           | RCD Type B  |
| Network connection          | Ethernet 10/100BaseTX   |
| Interface protocol          | OCPP 1.5 / 1.6J, HW ready for update to OCPP 2.0                                      |
| Compliance                  | CE / Combo-2<br>(DIN 70121; ISO15118)<br>IEC 61851-1; IEC 61851-23;<br>IEC 61851-21-2 |
|                             | CHAdeMO compatible  |
| Enclosure rating            | IP54 / IK10   |
| Enclosure material          | Stainless steel   |
| Operating temperature       | -30 °C to +50 °C  |
| Ambient temperature storage | -40 °C to +60 °C  |
| Operating humidity          | 5% to 95% Non-condensing  |
| Socket protection           | Locking System  |
| RFID system                 | ISO / IEC14443-1/2/3<br>MIFARE Classic  |
| Display HMI                 | 8" anti-vandal colour touchscreen   |
| Power limit control         | DC & AC by software   |

| DC cable length CCS   | 3 metres  |
|---|---|
| DC cable length CHAdeMO   | 3 metres  |
| AC cable length   | 3 metres  |
| Lights for status indication  | RGB colour indicator  |
| Dimensions (D x W x H)  | 355x940x1800 mm (without cable engaged)   |
| Weight  | 255 kg  |
| Cooling system  | Air cooling fans  |
| Operational noise level   | < 55 dBA  |
| AC Meter  | Compliant with the EN 50470-1<br>and EN 50470-3 (MID European<br>standards) or IEC 62052-11   |
| Wireless Communication EU   | 4G LTE/WiFi Hotspot/GPRS/GSM  |
| Optional devices  |   |
|   |   |
| Wireless Communication  | LATAM/APAC/4G LTE/GPRS/GSM  |
| Wireless Communication Surge protection   | LATAM/APAC/4G LTE/GPRS/GSM<br>Four pole transient surge protector<br>IEC 61643-1 (class II)   |
|   | Four pole transient surge protector   |
| Surge protection  | Four pole transient surge protector<br>IEC 61643-1 (class II)   |
| Surge protection Cable Length   | Four pole transient surge protector<br>IEC 61643-1 (class II)<br>5.5 metres (all cables)  |
| Surge protection<br>Cable Length<br>CHAdeMo cable upgrade<br>Anti-vandal connector  | Four pole transient surge protector<br>IEC 61643-1 (class II)<br>5.5 metres (all cables)<br>200 A (100 kW)*<br>CHAdeMO, CCS   |
| Surge protection<br>Cable Length<br>CHAdeMo cable upgrade<br>Anti-vandal connector<br>protection  | Four pole transient surge protector<br>IEC 61643-1 (class II)<br>5.5 metres (all cables)<br>200 A (100 kW)*<br>CHAdeMO, CCS<br>(mechanical connector locking)   |
| Surge protection<br>Cable Length<br>CHAdeMo cable upgrade<br>Anti-vandal connector<br>protection<br>Type 2 charging socket                                    | Four pole transient surge protector<br>IEC 61643-1 (class II)<br>5.5 metres (all cables)<br>200 A (100 kW)*<br>CHAdeMO, CCS<br>(mechanical connector locking)<br>Shutter  |
| Surge protection<br>Cable Length<br>CHAdeMo cable upgrade<br>Anti-vandal connector<br>protection<br>Type 2 charging socket<br>50 kW DC version                | Four pole transient surge protector<br>IEC 61643-1 (class II)<br>5.5 metres (all cables)<br>200 A (100 kW)*<br>CHAdeMO, CCS<br>(mechanical connector locking)<br>Shutter<br>Power output DC of 50 kW  |
| Surge protection<br>Cable Length<br>CHAdeMo cable upgrade<br>Anti-vandal connector<br>protection<br>Type 2 charging socket<br>50 kW DC version                | Four pole transient surge protector<br>IEC 61643-1 (class II)<br>5.5 metres (all cables)<br>200 A (100 kW)*<br>CHAdeMO, CCS<br>(mechanical connector locking)<br>Shutter<br>Power output DC of 50 kW<br>Switch TCP ethernet 8 ports   |
| Surge protection<br>Cable Length<br>CHAdeMo cable upgrade<br>Anti-vandal connector<br>protection<br>Type 2 charging socket<br>50 kW DC version<br>Network hub | Four pole transient surge protector<br>IEC 61643-1 (class II)<br>5.5 metres (all cables)<br>200 A (100 kW)*<br>CHAdeMO, CCS<br>(mechanical connector locking)<br>Shutter<br>Power output DC of 50 kW<br>Switch TCP ethernet 8 ports<br>Switch TCP ethernet 12 ports<br>Legic Advant / Legic Prime |

\* HW ready SW available within 2021. \*\* Ask for availability.

#### **Model Specifications**

| Models   | CCS  | CCS T2C32                               | CCS T2S32                               |
|--|--|---|---|
| Maximum AC input current                                     | 160 A  | 192 A                                   | 192 A                                   |
| Required power supply capacity                               | 110 kVA                                      | 132 kVA                                 | 132 kVA                                 |
| Maximum output power   | 100 kW                                       | DC: 100 kW<br>AC: 22 kW                 | DC: 100 kW<br>AC: 22 kW                 |
| Output voltage range   | DC: 150 - 920 V                              | DC: 150 - 920 V<br>AC: 400 V            | DC: 150 - 920 V<br>AC: 400 V            |
| Maximum output current                                       | DC: 250 A                                    | DC: 250 A<br>AC: 32 A                   | DC: 250 A<br>AC: 32 A                   |
| Connection   | CCS 2  | CCS 2<br>Type 2 Tethered cable          | CCS 2<br>Type 2 Socket (Lock system)    |
|  |  |   |   |
| Models   | CCS CHA                                      | CCS CHA T2C32                           | CCS CHA T2S32                           |
| Maximum AC input current                                     | 160 A  | 192 A                                   | 192 A                                   |
| Required power supply capacity                               | 110 kVA                                      | 132 kVA                                 | 132 kVA                                 |
| Maximum output power   | CCS 100 kW<br>CHA 50 kW                      | DC: CSS 100 kW / CHA 50 kW<br>AC: 22 kW | DC: CSS 100 kW / CHA 50 kW<br>AC: 22 kW |
|  |  |   |   |
| Output voltage range   | DC: 150 - 920 V                              | DC: 150 - 920 V<br>AC: 400 V            | DC: 150 - 920 V<br>AC: 400 V            |
|  | DC: 150 - 920 V<br>DC: CSS 250 A / CHA 125 A |   |   |
| Output voltage range<br>Maximum output current<br>Connection |  | AC: 400 V<br>DC: CSS 250 A / CHA 125 A  | AC: 400 V<br>DC: CSS 250 A / CHA 125 A  |

33

# Raption 150

The best solution for eBuses and petrol stations

#### Application

Designed to be installed in road-side rest areas and petrol stations where vehicles with large batteries require high charging power to be ready to continue their journey in less than half hour and minimise charging time.

#### **Concept Design**

Designed to address the main problems identified by charge point owners/ operators when fast charging (low uptime), the Raption 150 series is based on state-of-the-art modular power technology.

Another key attribute considered was the exterior design. Sophisticated, slim and robust are just some adjectives that can be used to describe this series features that make it ideal for any type of site (from the most stylish urban areas to industrial ones). The Raption 150's modular architecture allows power scalability from 100 kW to 150 kW.

#### **Product highlights**

#### For Charge Point Operators / Owners

- **Simultaneous DC charge** able to charge 2 EVs at the same time by splitting the available power (e.g. 75 kW + 75 kW).
- Its **modular power technology** ensures high uptimes (reducing the non-operation expenditure), because in the event of a power module failure, the rest of the modules continue charging.
- Lower energy consumption (and therefore OPEX) is achieved due to a sustained high efficiency level resulting from disconnecting power modules when lower charging power is requested by the EV.
- The modular architecture allows power scalability, so two models are possible; Raption 150 Lite (max output 100 kW) and Raption 150 (max output 150 kW).
- It offers a unique **connector care concept** by means of the connector locking feature (optional) and floating cable design, which reduces the risk of the cable breaking (i.e., lower OPEX and higher uptime).
- The door at the front with **key access** provides access to the interior of the charger which results in a lower OPEX due to quicker installation and servicing (preventive/corrective). Moreover, it allows the charger to be installed next to a wall, optimising the available space.
- Possible to configure as a Master for the **Master-**Slave solution.

#### For Charge Point Users

• Its 8" anti-vandal colour touchscreen daylight readable not only provides clear charging instructions (e.g. incorrect EV position to start the charge) and operating status (e.g. reserved charge point), but also allows the user to select from several languages.

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**Quick Charge** 

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- User satisfaction is also increased due to its **built-in courtesy light** which both facilitates locating the charge point in dark areas and reading the messages included on operating instruction labels.
- Accessibility for disabled users has also been considered, complying with international standards regarding the height of connectors/ displays, facilitating their use.
- The Raption series can be optionally equipped with an **integrated payment terminal** to facilitate payments by credit card and enhance the user experience. Our payment terminal allows payment without a membership model and can operate with or without a back-office platform.

### **Raption 150** Series

#### **General Specifications**

| Compliance                   | CE / Combo-2<br>(DIN 70121; ISO15118)<br>IEC 61851-1; IEC 61851-23;<br>IEC 61851-21-2       |
|------------------------------|---|
|                              | CHAdeMO compatible  |
| Enclosure rating             | IP54 / IK10   |
| Enclosure material           | Stainless steel   |
| Operating temperature        | -10 °C to + 50 °C   |
| Ambient temperature storage  | - 20 °C to + 60 °C  |
| Operating humidity           | 5% to 95% Non-condensing  |
| Dis                          | penser  |
| Network connection           | Ethernet 10/100BaseTX   |
| Interface protocol           | OCPP 1.5 / 1.6J, HW ready for update to OCPP 2.0  |
| RFID system                  | ISO / IEC14443-1/2/3<br>MIFARE Classic  |
| Display HMI                  | 8" anti-vandal colour touchscreen   |
| Power limit control          | DC by software  |
| DC cable length CCS          | 3.4 metres  |
| DC cable length CHAdeMO      | 3.4 metres  |
| Lights for status indication | RGB colours indicator   |
| Dimensions (D x W x H)       | 380x470x2070 mm   |
| Weight                       | 115 kg  |
| Operational noise level      | Not perceptible   |
| AC Meter                     | Compliant with the EN 50470-1<br>and EN 50470-3 (MID European<br>standards) or IEC 62052-11 |
| Wireless Communication EU    | 4G LTE /WiFi Hotspot/GPRS/GSM   |

| Power Unit                       |  |  |
|----------------------------------|--|--|
| AC power supply                  | 3P + N + PE  |  |
| AC Voltage                       | 400V AC +/- 10%  |  |
| Maximum AC input current         | 237A / 160A*   |  |
| Required power supply capacity   | 163kVA / 110kVA*   |  |
| Power Factor (pu)                | >0.98  |  |
| Efficiency (pu)                  | 94% at nominal output power                                    |  |
| Frequency (pu)                   | 50 / 60 Hz   |  |
| Cooling system                   | Forced air   |  |
| Operational noise level          | < 55 dBA   |  |
| Electrical input protection      | Main circuit disconnection                                     |  |
| Overcurrent protection           | МСВ  |  |
| Safety protection (pu)           | RCD Type B   |  |
| Dimensions (D x W x H)           | 800x1000x2100 mm   |  |
| Weight                           | 420 kg   |  |
| Optional devices                 |  |  |
| Wireless Communication           | LATAM/APAC/4G LTE /GPRS/GSM                                    |  |
| Surge protection                 | Four pole transient surge protector<br>IEC 61643-1 (class II)  |  |
| Cable Length                     | 5.3 metres (all cables)  |  |
| Anti-vandal connector protection | CHAdeMO, CCS<br>(mechanical connector locking)                 |  |
| RFID Extension                   | Legic Advant / Legic Prime<br>ISO 15693/ISO 18092. Sony FeliCa |  |
| Low Temperature Kit              | -30°C to +50°C   |  |
| Contactless payment**            | Integrated credit card payment terminal                        |  |
|                                  | *Raption 150 Lite Models                                       |  |

\*\*Ask for availability.

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#### **Model Specifications**

| Raption 150 Models     | CCS250 <sup>(1)</sup> | CCS250 CHA200   | CCS250 CCS250 <sup>(1)</sup>                             |
|------------------------|-----------------------|---|--|
| Maximum output power   | CCS: 150 kW (2)       | CCS: 150 kW <sup>(2)</sup><br>CHA: 50 kW <sup>(4)</sup> | CCS: 150 kW <sup>(2)</sup><br>CCS: 150 kW <sup>(2)</sup> |
| Output voltage range   | CCS: 100-920V         | CCS: 100-920V<br>CHA: 100-500V                          | CCS: 100-920V<br>CCS: 100-920V                           |
| Maximum output current | CCS: 250A             | CCS: 250A<br>CHA: 200A                                  | CCS: 250A<br>CCS: 250A                                   |
| Connection             |                       |   |  |

(1) Also available with cable of 200 A (max output power: 150 kW @920 V or 80 kW @400 V)

<sup>(2)</sup> 150 kW @720-920V or 100 kW @400V

<sup>(3)</sup> HW suitable for up to 100 kW following FW update

| Raption 150 Lite Models | CCS250 <sup>(1)</sup> | CCS250 CHA200                            | CCS250 CCS250 <sup>(1)</sup>   |
|-------------------------|-----------------------|--|--------------------------------|
| Maximum output power    | CCS: 100 kW (2)       | CCS: 100 kW<br>CHA: 50 kW <sup>(3)</sup> | CCS: 100 kW<br>CCS: 100 kW     |
| Output voltage range    | CCS: 100-920V         | CCS: 100-920V<br>CHA: 100-500V           | CCS: 100-920V<br>CCS: 100-920V |
| Maximum output current  | CCS: 250A             | CCS: 250A<br>CHA: 200A                   | CCS: 250A<br>CCS: 250A         |
| Connection              |                       |  |                                |

(1) Also available with cable of 200 A (max output power: 100 kW @920 V or 80 kW @400 V)

<sup>(2)</sup> 80 kW @400V

<sup>(3)</sup> HW suitable for up to 100 kW following FW update

# **EV Charging Software**

The best software for EV charging solution

# EV charging easier, faster & cheaper.

Operating several charging points in one location represents some challenges and demands solutions to overcome them. Using devices, software or solutions that allow load management, monitoring and reporting has several advantages, such as avoiding power cuts due to the grid overloading, reducing installation and operational costs and being more efficient by collecting data from your charging network.

Why is our EV charging software important?



Avoids powers cuts caused by limited grid capacity.



Reduces investment costs by avoiding the need to upgrade installations.



Reduces operational costs thanks to intelligent load balancing

| <u>~</u> = |   |
|------------|---|
|            | 2 |

Makes your management more efficient thanks to monitoring.

# The best software for EV charging solution:











Destination

Service stations

Car park

Business

Public charge



#### LOAD MANAGEMENT

Dynamic Load Management (DLM)

Dynamic Load Management (DLM) is **software** that allows for charging several EVs simultaneously in less time using the available power more efficiently and balancing it between the EV chargers.



## USAGE MANAGEMENT Cosmos

Cosmos is a **cloud-based platform for monitoring and reporting**. It is a platform designed to collect and store data from a specific set of EV chargers located in car parks, offices and communal blocks.

# **Dynamic Load Management (DLM)**

Load Management

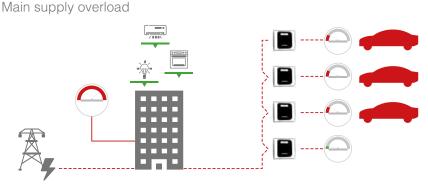
#### **Main problems**

EV drivers want to charge their vehicles faster, especially in public and semi-public spaces, while charging service providers want to reduce their costs. The constant growth in EV charging creates new challenges:

- How to avoid overloading the grid and causing power cuts.
- How to minimise the investment required to upgrade installations.
- How to set up an EV charging system capable of simultaneous charging.

This situation requires an intelligent system to manage the charge and this is where Dynamic Load Management (DLM) comes in.

#### ▶ WITHOUT DYNAMIC LOAD MANAGEMENT



# Try the DLM solution

Dynamic Load Management (DLM) is a software-based solution designed for managing energy when several charging stations work simultaneously. DLM allows for charging several EVs simultaneously in the most efficient way by using the remaining available power dynamically and balancing it between the EV chargers. It also allows increasing the number of charging stations without increasing the contracted power.

Therefore, DLM could be installed on sites where the electric installation is fully allocated to electric vehicles or on sites where another facility is sharing the maximum available power.

# WITH DYNAMIC LOAD MANAGEMENT Main supply protected

#### www.circontrol.com

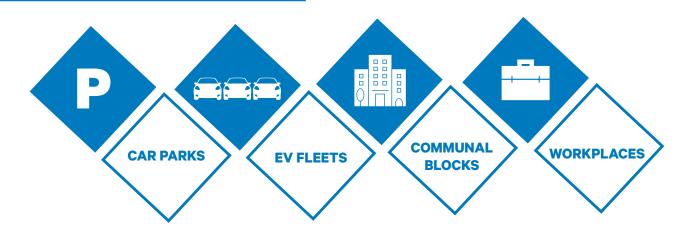
38

## **Product highlights:**

- OCPP ready: Chargers can be controlled by a back-office system.
- EV charging status: Remote monitoring of charge points.
- User RFID authentication: Increase the security of the system with RFID tags.
- Power monitoring: Remotely check all power consumption from your installation in real time.

- Offline operation: In case of network communications problems, the system is able to keep charging.
- Building energy monitoring (optional): It measures the power consumed by the building and DLM dynamically adjusts the available power for electrical vehicles.
- EV priority chargers: Schedule VIP charging transactions.

#### **Designed for:**





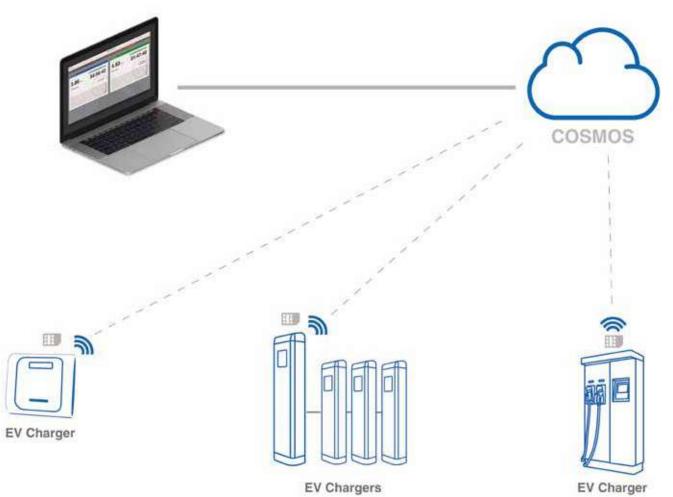
#### Application

Designed by CIRCONTROL to collect and store data from a specific set of EV chargers for monitoring and reporting. This cloud-based platform has an easy and intuitive dashboard and offers customisable reports according to user, charger, consumption and tariff, including invoice simulation.

## Perfect for...

Fleet managers, building managers, car park operators and other operators with similar needs as they will be able to easily register and unsubscribe users.

> Cosmos is a cloud platform based on OCPP 1.6J that gathers data from a specific set of EV chargers and helps you create and manage your own charging network. Therefore, monitoring, controlling the chargers remotely and/ or reporting processes is simpler and automatic.



## **Product highlights:**



Easily obtain a general overview and the most significant data about an installation or a group of installations at a simple glance.



Locate and check your chargers' status on a map in a very easy and quick way.



Availability of free parking spaces and occupancy analysis.



Hourly rates and/or fixed costs detailed on billing simulations..



#### **REGISTER/ UNSUBSCRIBE USERS**

Manage the authorised users of your charging network as well as their permissions and profiles as required.





Reduce the fault resolution time and obtain a detailed diagnosis if any charger is not working properly.



Design, generate and send reports automatically by e-mail, as well as invoice simulations with consumption data, times, rates...



Connect other EV chargers, aside from Circontrol's, as long as they comply with the OCPP 1.6 protocol.

#### Licenses:

| Create your own scalable Partner Network according to your needs.                | Q10ES | Advances     |
|--|-------|--------------|
| Real-time charge points dashboard  | ~     | ~            |
| Charging network map   | ~     | $\checkmark$ |
| Configuration (company, facility, chargers, users and car park)                  | —     | ~            |
| Monitoring of charging points and parking guidance system                        | ~     | $\checkmark$ |
| Remote control of charging points (start, stop, unlock, reboot and diagnostic)   | ~     | ~            |
| Access to historical reports (customer/operator invoice and charge point alarms) | ~     | ~            |
| Create new charge point tariffs for reporting                                    |       | ~            |
| Parking guidance dashboard customisable  |       | ~            |

# **After-sales Support**

*Customer service is not a department, it is an attitude.* 

# We strongly believe that customer service is crucial in the EV charging infrastructure.

Online technical support, on-site assistance, training sessions, documentation and tools, new releases, recommended spare parts and a specific web-based Expert Area are some of the services you will have at your disposal to to ensure chargers are always up and running. **This is our main goal.** 

42

+190 Training sessions

# +3.000 Training

hours

+285 Certified partners

+150,000 Kilometres travelled / year

AFTER-SALES SUPPORT

# **Spare Parts Kits**

for the Raption Series DC charging station

#### Application

The Spare Parts Kits are designed for charging station service maintainers and contain all the recommended components for the Raption 50 series DC charger.

## **Concept Design**

These kits are a combination of spare parts needed to cover the most common incidents that can occur in the field. Each part is packaged separately and clearly labelled in a robust protection case making its transportation easier.

The kits also include a Service Manual and information labels in order to record information about the replaced part.



#### For charging points maintainers

#### Clearer

• The Spare Parts Kits provide all the spare parts recommended by CIRCONTROL for replacement during maintenance. This minimises the risk of ordering incorrect or unnecessary parts.

#### Better

• Easy maintenance through clear labelling of parts. The Spare Parts Kits centralise all the parts required and reduce the variety of components in stock.

#### Faster

• The Spare Parts Kits cover about 90% of the parts involved in incidents that occur in the field and allow most of the possible issues to be resolved on the first call-out.

#### **Cost effective**

• Their compact format and flexibility help to streamline logistics and preparations for service calls, reducing indirect costs.

G CIRCONTROL

GoBox

#### Portable

• Its robust design allows you to take the Spare Parts Kit anywhere or send it ahead before you travel.

#### Low price

• Kits are less expensive than the sum of the individual parts.

## Models

GoBox Raption 50 Kit designed with the necessary components to maintain up to 20 chargers. It is supplied in a transportable protection box.

| Models                     | Series | Description   | Socket type |
|----------------------------|--------|---|-------------|
| GoBox Raption 50 Trio T232 | TRIO   | Kit GoBox Raption 50 TRIO T2S32. CHA+CCS+T2 Socket 32 |             |
| GoBox Raption 50 Trio T263 | TRIO   | Kit GoBox Raption 50 TRIO T2C63. CHA+CCS+T2 Cable 63  |             |
| GoBox Raption 50 Duo       |        | Kit GoBox Raption 50 DUO. CHA+CCS                     |             |
| GoBox Raption 50 CCS T232  | CCS    | Kit GoBox Raption 50 CCS T2S32. CCS+T2 Socket 32      |             |
| GoBox Raption 50 CHA T232  | СНА    | Kit GoBox Raption 50 CHA T2S32. CHA+T2 Socket 32      |             |
| GoBox Raption 50 CCS       | CCS    | Kit GoBox Raption 50 CCS. CCS                         |             |
| GoBox Raption 50 CHA       | СНА    | Kit GoBox Raption 50 CHA. CHA                         |             |

GoBox Raption 100 Kit designed with the necessary components to maintain up to 20 chargers. It is supplied in a transportable protection box.

| Models                    | Series | Description  | Socket t | ype |  |
|---------------------------|--------|--|----------|-----|--|
| GoBox Raption 100 CCS CHA | DUO    | Kit GoBox Raption 100 CCS CHA. CHA+CCS                             | ٢        |     |  |
| GoBox Raption 100 Trio    | TRIO   | Kit GoBox Raption 100 TRIO T2C32/T2S32. CHA+CCS+T2 Cable/Socket 32 | ٢        |     |  |

GoBox Raption 150 Kit designed with the necessary components to maintain up to 20 chargers. It is supplied in a transportable protection box.

| Models                    | Series | Description                            | Socket type |
|---------------------------|--------|--|-------------|
| GoBox Raption 150 CCS CHA | DUO    | Kit GoBox Raption 150 CCS CHA. CHA+CCS |             |



**CIRCONTROL** offers intelligent charging solutions for electric vehicles with a wide product range that suits with every market need.





# Notes







Circontrol has a network of distributors and representative agents all over the world. For further information, contact:

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