

Cir Car Life

Intelligent charging solutions
for electric vehicles



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

CirCarLife aims 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.

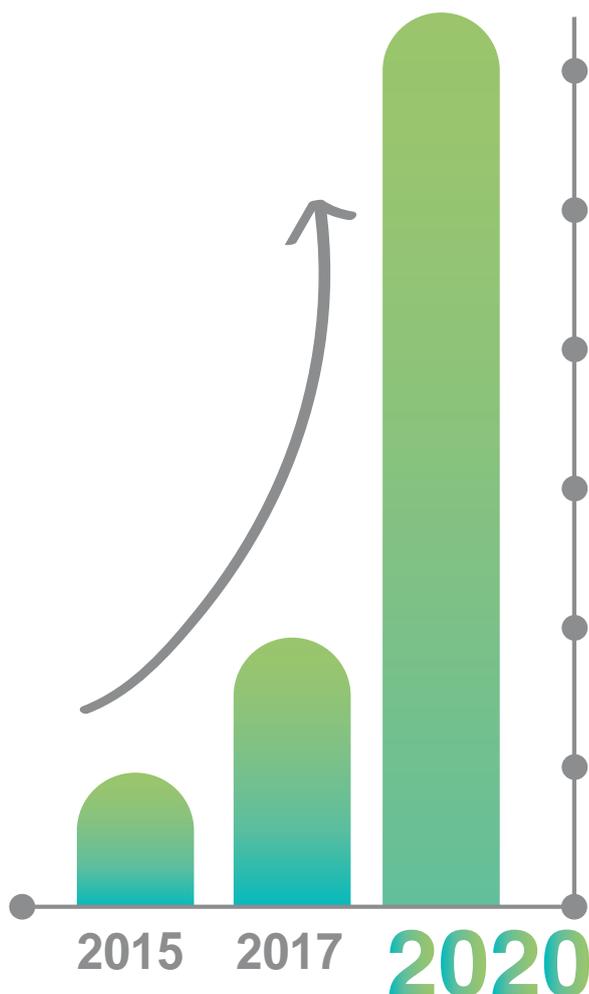
CirCarLife's product portfolio offers a wide product range that covers slow charging (AC) and fast charging (DC). Circontrol is an European Leader in EVSE with presence in 52 countries and over 30.000 charging points installed worldwide.



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Who drives an EV?

The presence of an EV charger on the street or a silent EV car suddenly crossing the road were rare things not so long ago, but they are becoming more common every day and forecasts show that they will be a strong reality sooner than later.



In **2015** EVs reached 1 million threshold and in **2017** they overcame 2 million vehicles. Some forecasts show that **there will be between 9 and 20 million EVs in 2020.***

*According to International Energy Agency Report.

This rising interest for EVs makes even more important to know more about these early adopters.

Who are they?

Mostly they are



Males



41 years old



Richer than the average



Living in small cities

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





Market Segments

Products



WB eHome WB eBasic WB Smart WB eVolve Smart Post eVolve Basic Post eVolve Smart eStreet Post Raption 22 Raption 50



Workplace & Fleets

Designed for companies with an EV fleet or employees owning an EV. It allows them to charge it while they are at work.



Retail

Perfect for malls or commercial areas. Customers are able to load their EV's battery while they are shopping.



Hospitality

Ideal for charging EV in hotels, restaurants or leisure centres, among others. Customers can leave it charging and pick up the car after their stay.



Private Home

Designed for a private charge of the EV while the owner is comfortably at home.



Condominium

Perfect for apartment blocks and communal areas.



Municipalities

Designed to be placed in a public area such as a public parking where many drivers will have access to this charging point.



Education & Healthcare

Ideal for Universities, hospitals or other public facilities where drivers can charge their EV while they are studying or doing any other activity.



Highway

Designed for offering the quickest charge and allow drivers to continue the journey in a short time.



CarPark

Perfect for both public and private parkings. A good solution for parking's owners as they enable communication between stations.



WallBox eHome

The ultimate solution for domestic EV charging



Application

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

Concept Design

Taking into account that many times a domestic charger is considered an appliance, a nice design and a small size are key attributes that are to be contemplated.

Furthermore WallBox eHome series offers other attributes such as low-cost, robustness, and user-friendly operation.

Product highlights

- Compatible with **BeON sensor** (accessory), when combined with eHome is able to dynamically adjust the electric vehicle's consumption according to the available power of the installation, avoiding the risk of blackout and/or having to upgrade the existing installation (resulting on a lower initial investment).
- The **frontal LED bar** not only informs the user about the charger status (e.g. operative, faulty...) but also EV charging status; charging (dynamic blue light) vs charged (static blue light).
- Its **frontal key-locked door with electrical protections** (optional) not only provides an easy access in case the protection has tripped but protects the user against electrical shock. It can also be used as a user authentication method (using the protection as a ON/OFF switch).
- The charger's **housing** is made of ABS plastic which is both robust and UV resistant, providing protection against both mechanical stress and severe environmental conditions (which increases the charger lifespan and avoids its replacement in just a few years).
- Its well-thought-out shape allows the cable to be rolled up and keep it tidy and unbroken while the charger is not being used.
- Simple user operation by its **Plug 'n' Charge** mode that avoids the user obligation of authentication by means of an RFID card, phone or equivalent method.
- This series also includes a **selector switch** that facilitates the setup of the charger 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).
- WallBox eHome series provides a reserved space in case you want to **have your own brand on it**.

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 dipswitch
Dimensions (D x W x H)	115x180x315 mm
Weight	4 Kg
Cable length	5 meters
External input	Remote charging activation

Optional devices

Meter*	Active Energy Class 1 (IEC 62053-21)
Low temperature kit	-30 °C to +45 °C
Safety protection*	RCD Type A / B (30mA)
Power limit control	BeON sensor
Cable support	Metallic holder

* When ordered, easy access with frontal key locked door.

Models Specifications

Model	T1C16	T1C32	T2C16	T2C32
AC power supply	1P + N + PE			
AC voltage	230 VAC +/-10%	230 VAC +/-10%	230 VAC +/-10%	230 VAC +/-10%
Maximum current	16 A	32 A	16 A	32 A
Maximum power	3,7 kW	7,4 kW	3,7 kW	7,4 kW
Connector	Type 1 Cable	Type 1 Cable	Type 2 Cable	Type 2 Cable
				

Circontrol collaborates with the main EV car makers



And many more...

WallBox eBasic

Ideal when authentication is not required



Application

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

Concept Design

Considering that many times a domestic charger is considered an appliance, a simple design and safety usage of your home and combined with a small size are key attributes that are to be considered. Wallbox eBasic series not only offers this but also some other attributes such as low-cost, robustness, and user-friendly operation.

Product highlights

- Compatible with **BeON sensor** (accessory), when combined with eBasic is able to dynamically adjust the electric vehicle's consumption according to the available power of the installation, avoiding the risk of blackout and/or having to upgrade the existing installation (resulting on a lower initial investment).
- The **frontal LED bar** not only informs the user about the charger status (e.g. operative, faulty...) but also 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 both mechanical stress and severe environmental conditions (which increases the charger lifespan and avoids its replacement in just a few years).
- Simple user operation by its **Plug 'n' Charge** mode that avoids the user obligation of authentication by means of an RFID card, phone or equivalent method.
- This series also includes a **selector switch** that facilitates the selection of the charger 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)
- WallBox eBasic series provides a reserved space in case you want to **have your own brand** on it.
- **2 in one**. Choose charge either in its Type 2 socket or Schuko connector, especially integrated for bicycles or motorbikes.

General Specifications

Enclosure rating	IP54 / IK10
Enclosure material	ABS
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 dipswitch
Dimensions (D x W x H)	125x225x320 mm
Weight	4 Kg

Optional devices

Low temperature kit	-30 °C to +45 °C
Power limit control	BeON sensor
Cable support	Optional (included at WallBox with tethered cable)
Pedestal single	Pedestal for one plug WallBox

Models Specifications

Input	eBASIC T2S32	eBASIC T2S32 Schuko	eBASIC T2C32
AC power supply	3P + N + PE	1P /3P + N + PE	3P + N + PE
AC Voltage	400 VAC +/-10%	230 VAC / 400 VAC	400 VAC +/-10%
Maximum input current	32 A	T2: 32 A S: 16 A	32 A
Maximum input power	22 kW	T2: 22 kW S: 3,7 kW	22 kW
Number of plugs	1	2	1
Maximum output power per outlet	22 kW	T2: 22 kW S: 3,7 kW	22 kW
Maximum output current per outlet	32 A	T2: 32 A S: 16 A	32 A
AC output voltage	400 VAC (3P + N + PE)	230 VAC (1P + N + PE) 400 VAC (3P + N + PE)	400 VAC (3P + N + PE)
Socket Type	1 x Type 2 Socket	1 x Type 2 Socket + 1 x CEE/7	1 x Type 2 Socket



eHome BeON

The ultimate EV charger synchronized with your home



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

eHome BeON takes a new step in domestic EV charging allowing you to charge your vehicle while using your appliances.

Its intelligent sensor, easily added to the usual protection panel at home, dynamically adjusts electric vehicle's consumption if the house system is about to be overloaded.

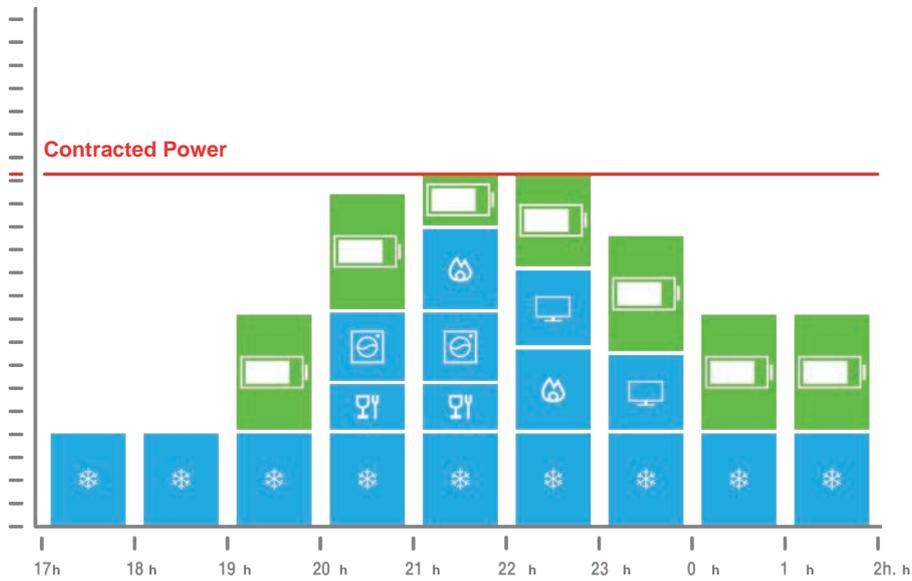
eHome BeON measures and interprets the housing consumption, generates the corresponding signal and sends it to WallBox eHome charging station, which interprets and modifies its output current accordingly.

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



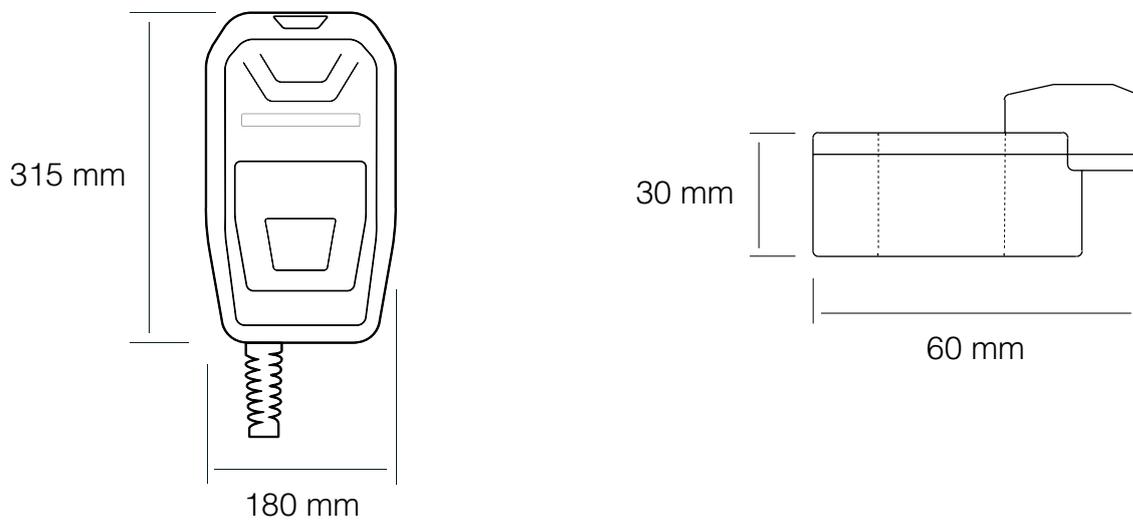
eHome BeON Compatible

Intelligent sensor



Product dimensions

It is so small that will fit everywhere



Dynamic Load Management

Make simultaneous EV charging easier, faster and cheaper

Main problems

EV drivers want to charge their vehicles faster, specially in public and semi-public spaces while charging service providers want to lower their costs.

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

The Solution

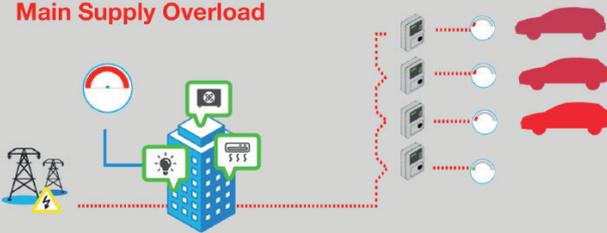
Dynamic Load Management (DLM) system is designed for an intelligent energy management of several charging stations that work simultaneously.

DLM allows charging more EVs simultaneously in less time using the available power more efficiently and balancing it among the EV chargers.

It also allows increasing the number of charging stations available over the years.

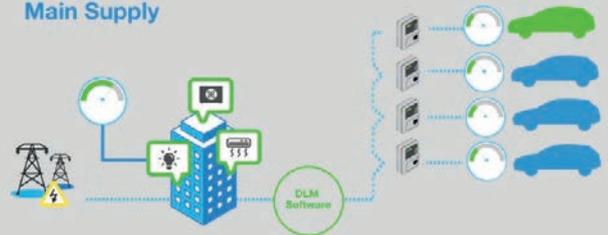
Without dynamic load management

Main Supply Overload



With dynamic load management

Main Supply



The existence of more EVs charging simultaneously creates new challenges:



- Overloading that causes a blackout due to limited grid capacity.
- High investment to upgrade the installation.
- Not having the possibility to charge the EV's simultaneously.

This system offers two possibilities:



- DLM Standard: when the electric installation is fully dedicated to electric vehicle charging stations.
- DLM Premium: when the charging stations are connected to another facility sharing the maximum power availability.

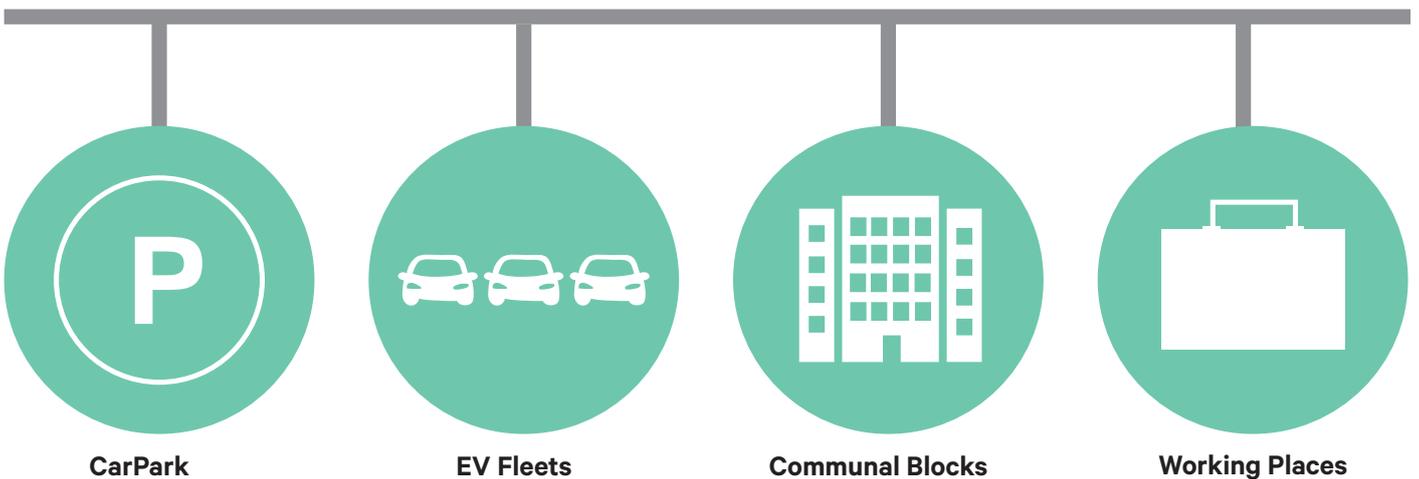
DLM Standard

- OCPP Ready: Chargers can be controlled by a back office system.
- EV Charging Status: Monitor all chargers with a SCADA screen.
- User Authentication RFID: Increase the security of the system with RFID tags
- Power Monitoring: Check total power management of your installation with a SCADA screen.
- Offline operation: In case of communications problems the system is able to keep charging.

DLM Premium

- DLM Standard features.
- Building energy monitoring: Measure the power used by the building and adjust the power available for charging.
- EV Chargers priority: Set up VIP chargers as a priority charging.
- Power graphic: allow consulting chargers and building historical consumptions.

Designed for



WallBox Smart

Perfect for improving user and operator experience



Application

Designed to be installed in both public access environments (urban spaces, shopping centres, parking lots, airports...) and private ones (homes, communal blocks, companies fleets...) where their intelligence and communications capabilities offer a range of possibilities that improve the user and/or operator experience.

Concept Design

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

Installing a smart wallbox network in a carpark, allows performing an intelligent energy management of several charging station simultaneously where not enough power is available.

Product highlights

For Charge Point Operator / Owner

- The **Embedded Load Management** allows a lower TCO (Total Cost of Ownership) by charging two EVs simultaneously even when the charger is not supplied with its maximum output power.
- About the charger's **Housing, ABS plastic** has been selected in a robust structural design that provides protection to both mechanical stress and severe environmental conditions, increasing the charger lifespan and avoiding its replacement in just a few years.
- In terms of **Communication**, either by its 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 diagnostic, etc.
- Ready for **Dynamic Load Management** network integration. Smart Wallbox series can be integrated with Circontrol Scada Software and make simultaneous EV charge easier, faster and cheaper.

For Charge Point User

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

WallBox Smart Series

General Specifications

Network connection	10/100BaseTX (TCP-IP)
Interface protocol	OCPP1.2, 1.5
Enclosure rating	IP54 / IK10
Enclosure material	ABS
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	LCD Multi-language
Power limit control	Mode 3 PWM control according ISO/IEC 61851-1
Dimensions (D x W x H)	Single: 125x225x320 mm Dual: 125x442x350 mm
Weight	Single: 4Kg Dual: 6Kg

RFID Reader	ISO / IEC14443A / B MIFARE Classic/DESFire EV1 ISO 18092 / ECMA-340 NFC 13.56MHz
Meter	Class 1 - EN50470-3
Type 2 Socket Protection	Locking system
Compatible with DLM	
Optional devices	
MID Meter	MID Class 1 - EN50470-3
Low temperature kit	-30°C to +45°C
Cable support	Optional (included at WallBox with tethered cable)
Pedestal	Single: for one plug WallBox Dual: for two plugs WallBox
Type 2 Charging Socket	Shutter
Wireless Communication	3G / GPRS / GSM

Models Specifications

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)
Socket Type	1 x Type 1 (5m cable) 	1 x Type 1 (5m cable) 	1 x Type 2 (5m cable) 

Model	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
Maximum output current per outlet	32 A	32 A	32 A
AC output voltage	400 VAC (1P + N + PE)	230 VAC (1P + N + PE)	400 VAC (3P + N + PE)
Socket Type	1 x Type 2 (5m cable) 	1 x Type 2 Socket (lock system) 	1 x Type 2 Socket (lock system) 

Model	WB-MIX-SMART	WB2M-SMART	WB2M-SMART-TRI	
AC power supply	1P + N + PE	1P + N + PE	3P + N + PE	
AC Voltage	230VAC +/-10%	230 VAC +/-10%	400 VAC +/-10%	
Maximum input current	48 A	64 A	64 A	
Maximum input power	11 kW	14,7 kW	44 kW	
Number of plugs	2	2	2	
Outlet A	Maximum output power	7,4 kW	22 kW	
	Maximum output current	32 A	32 A	
	Outlet B	Maximum output power	3,7 kW	22 kW
		Maximum output current	16 A	32 A
AC output voltage	230 VAC (1P + N + PE)	230 VAC (1P + N + PE)	400 VAC (3P + N + PE)	
Socket Type	1 x Type 2 Socket (lock system) + 1 x CEE/7  	2 x Type 2 Socket (lock system)  	2 x Type 2 Socket (lock system)  	

WallBox eVolve Smart

The ultimate design for a WallBox with communications



Application

Designed to be installed in both public access environments (urban spaces, shopping centres, parking lots, airports, petrol stations ...) and private ones (companies, community car park sites...) where their 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 aspect. With its stylised shape and modern lines, eVolve series meets this demand.

In the same way, not only external design has been taken into account but also the daily conditions (both operational and environmental) EVSE have to withstand.

Product highlights

For Charge Point Operator / Owner

- The **Embedded Load Management** allows a lower TCO (Total Cost of Ownership) by charging two EVs simultaneously even when the charger is not supplied with its maximum output power.
- Its **frontal key-locked door** provides an easy access to the inside of the charger which results in a lower OpEx (Operating Expenditure) 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.
- About the charger's **housing**, aluminium and ABS plastic have been combined in a robust structural design that provides protection to both mechanical stress and severe environmental conditions, increasing the charger lifespan and avoiding its replacement in just a few years.
- In terms of **communication**, either by its 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 diagnostic, etc.
- To comply with the most demanding requirements regarding billing, eVolve series includes **MID certified meters**.

For Charge Point User

- Clear charging instructions and plug status are shown using a **backlight display**, increasing user satisfaction, especially useful when the charger has been previously reserved by another user.
- eVolve series offers a **flexible authentication**, meaning that the user can either authenticate before or after connecting the cable to the EV. Additionally, the authentication process can also be disabled for a 'plug & charge' use mode.
- The **Accessibility for the disabled** has also been considered, complying with international standards regarding the height of connectors/display that facilitates its operation.
- eVolve series includes the necessary **electrical protections** (optional) not only to minimize the human safety risk of electrical shock but also to ensure the maximum uptime due to independent protections per connector.

WallBox eVolve Smart Series

General Specifications

Network connection	10/100BaseTX (TCP-IP)
Interface protocol	OCPP1.2, 1.5
Enclosure rating	IP54 / IK10
Enclosure material	Aluminium & ABS
Enclosure door lock	Key lock
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	LCD Multi-language
Power limit control	Mode 3 PWM control according ISO/IEC 61851-1
Dimensions (D x W x H)	Small: 450x290x600 mm Large: 450x290x850 mm
Weight	Small: 25 kg Large: 30 kg

RFID Reader	ISO / IEC14443A / B MIFARE Classic/DESFire EV1 ISO 18092 / ECMA-340 NFC 13.56MHz
Meter	MID Class 1 - EN50470-3
Power output management	Embedded Load Management
Type 2 Socket Protection	Locking System
Compatible with DLM	
Optional devices	
Low temperature kit	-30 °C to +45 °C
Electrical protection Type A*	Overcurrent: MCB (curve C) Safety: RCD Type A (30mA)
Electrical protection Type B*	Overcurrent: MCB (curve C) Safety: RCD Type B (30mA)
Surge protection	Four pole transient surge protector IEC 61643-1 (class II)
Type 2 Charging Socket	Shutter
Wireless Communication	3G / GPRS / GSM

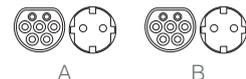
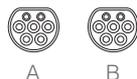
Small: Model S & T without electrical protection.

Large: Model S & T with electrical protection and Model TM4.

*Not available in model TM4

Models Specifications

Model	S	T	TM4	
AC power supply	1P + N + PE	3P + N + PE	3P + N + PE	
AC input voltage	230 VAC +/-10%	400 VAC +/-10%	400 VAC +/-10%	
Maximum input current	64 A	64 A	64 A	
Maximum input power	14,7 kW	44 kW	44 kW	
Number of plugs	2	2	4	
Outlet A	Maximum output current	32 A	32 A	16 A
	Maximum output power	7,4 kW	22 kW	3,7 kW
	AC output voltage	230 VAC (1P + N + PE)	400 VAC (3P + N + PE)	400 VAC (3P + N + PE)
Outlet B	Maximum output current	32 A	32 A	16 A
	Maximum output power	7,4 kW	22 kW	3,7 kW
	AC output voltage	230 VAC (1P + N + PE)	400 VAC (3P + N + PE)	400 VAC (3P + N + PE)
Socket type	2x Type 2 Socket (lock system)	2x Type 2 Socket (lock system)	2x Type 2 Socket (lock system)	2x CEE/7



Post eVolve Basic

AC Post for a place where a simple solution is enough



Application

Workplace, communal blocks, shopping malls and those other places where a simple solution (no user management, no billing and no charging point monitoring) is enough to provide the charging service required.

Concept Design

It shares external concept design with Post eVolve Smart series which means that in order to be an adequate solution to many different applications (from stylish shops/buildings to companies located in industrial areas), it has been designed with both modern lines and robust housing, a winning combination.

Harsh weather conditions and user-friendly operation have also been key attributes considered during design process.

Product highlights

For Charge Point Operator / Owner

- Compatible with **BeON sensor** (accessory), when combined the charger is able to dynamically adjust the electric vehicle's consumption according to the available power of the installation, avoiding the risk of blackout and/or having to upgrade the existing installation (resulting on a lower initial investment).
- Its **frontal key-locked door** provides an easy access to the inside of the charger which results in a lower OpEx (Operating Expenditure) 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.
- About 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 lifespan and avoiding its replacement in just a few years.

For Charge Point User

- Simple user operation by its **Plug 'n' Charge** mode that avoids the user having to use an RFID card, phone or similar to authenticate.
- The **LED beacons** not only inform the user about the status of the plug but help to locate the charger when dark.
- The **Accessibility for the disabled** has also been considered, complying with international standards regarding the height of connectors that facilitates its operation.
- eVolve series includes the necessary **electrical protections** not only to minimize the human safety risk of electrical shock but also to ensure the maximum uptime due to independent protections per connector.

Post eVolve Basic Series

General Specifications

Enclosure rating	IP54 / IK10
Enclosure material	Aluminium & ABS
Enclosure door lock	Key lock
Enclosure acces	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
Current setup	Onboard dipswitch
Dimensions (D x W x H)	450x290x1550 mm
Weight	55 Kg

Safety protection	RCD Type A (30mA)
Overcurrent protections	MCB (curve C)
Compatible with DLM	

Optional devices

Low temperature kit	-30 °C to +45 °C
Safety protection	RCD Type B (30mA)
Surge protection	Four pole transient surge protector IEC 61643-1 (class II)
Power limit control	BeON sensor
Type 2 Socket Protection	Locking System

Models Specifications

Model	S-one	T-one
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 current per outlet	32 A	32 A
Maximum output power per outlet	7,4 kW	22 kW
AC output voltage	230 VAC (1P + N + PE)	400 VAC (3P + N + PE)
Socket Type	Type 2 Socket	Type 2 Socket
		

Model	S	T	TM4	
AC power supply	1P + N + PE	3P + N + PE	3P + N + PE	
AC input voltage	230 VAC +/-10%	400 VAC +/-10%	400 VAC +/-10%	
Maximum input current	64 A	64 A	64 A	
Maximum input power	14,8 kW	44 kW	44 kW	
Number of plugs	2	2	4	
Outlet A	Maximum output current	32 A	32 A	16 A
	Maximum output power	7,4 kW	22 kW	3,7 kW
	AC output voltage	230 VAC (1P + N + PE)	400 VAC (3P + N + PE)	400 VAC (3P + N + PE)
Outlet B	Maximum output current	32 A	32 A	16 A
	Maximum output power	7,4 kW	22 kW	3,7 kW
	AC output voltage	230 VAC (1P + N + PE)	400 VAC (3P + N + PE)	400 VAC (3P + N + PE)
Socket Type	2x Type 2 Socket	2x Type 2 Socket	2x Type 2 Socket	2x CEE/7
	 	 	 	 
	A B	A B	A B	

Post eVolve Smart

AC Charging Post with intelligent capabilities



Application

Designed to be installed in both public access environments (urban spaces, shopping centres, parking lots, airports, petrol stations ...) and private ones (companies, community car park sites...) where their 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 aspect. With its stylised shape and modern lines, eVolve series meets this demand.

In the same way, not only external design has been taken into account but also the daily conditions (both operational and environmental) EVSE have to withstand.

Product highlights

For Charge Point Operator / Owner

- The **Embedded Load Management** allows a lower TCO (Total Cost of Ownership) by charging two EVs simultaneously even when the charger is not supplied with its maximum output power.
- Its **frontal key-locked door** provides an easy access to the inside of the charger which results in a lower OpEx (Operating Expenditure) 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.
- About the charger's **housing**, aluminium and ABS plastic have been combined in a robust structural design that provides protection to both mechanical stress and severe environmental conditions, increasing the charger lifespan and avoiding its replacement in just a few years.
- In terms of **communication**, either by its 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 diagnostic, etc.
- To comply with the most demanding requirements regarding billing, eVolve series includes **MID certified meters**.

For Charge Point User

- Clear charging instructions and plug status are shown using a **backlight display**, increasing user satisfaction, especially useful when the charger has been previously reserved by another user.
- eVolve series offers a **flexible authentication**, meaning that the user can either authenticate before or after connecting the cable to the EV. Additionally, the authentication process can also be disabled for a 'plug & charge' use mode.
- The **accessibility for the disabled** has also been considered, complying with international standards regarding the height of connectors/ display that facilitates its operation.
- eVolve series includes the necessary **electrical protections** not only to minimize the human safety risk of electrical shock but also to ensure the maximum uptime due to independent protections per connector.

Post eVolve Smart Series

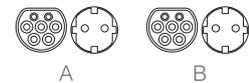
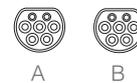
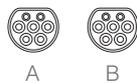
General Specifications

Network connection	10/100BaseTX (TCP-IP)
Interface protocol	OCPP1.2, 1.5
Enclosure rating	IP54 / IK10
Enclosure material	Aluminium & ABS
Enclosure door lock	Key lock
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	LCD Multi-language
Power limit control	Mode 3 PWM control according ISO/IEC 61851-1
Dimensions (D x W x H)	450x290x1550 mm
Weight	55 Kg

RFID Reader	ISO / IEC14443A / B MIFARE Classic/DESFire EV1 ISO 18092 / ECMA-340 NFC 13.56MHz
Meter	MID Class 1 - EN50470-3
Power output management	Embedded Load Management
Overcurrent protections	MCB (curve C)
Safety protection	RCD Type A (30mA)
Compatible with DLM	
Optional devices	
Low temperature kit	-30 °C to +45 °C
Safety protection	RCD Type B (30mA)
Surge protection	Four pole transient surge protector IEC 61643-1 (class II)
Type 2 Charging Socket	Shutter
Wireless Communication	3G / GPRS / GSM

Models Specifications

Model	S	T	TM4		
AC power supply	1P + N + PE	3P + N + PE	3P + N + PE		
AC input voltage	230 VAC +/-10%	400 VAC +/-10%	400 VAC +/-10%		
Maximum input current	64 A	64 A	64 A		
Maximum input power	14,7 kW	44 kW	44 kW		
Number of plugs	2	2	4		
Outlet A	Maximum output current	32 A	32 A	16 A	
	Maximum output power	7,4 kW	22 kW	22 kW	3,7 kW
	AC output voltage	230 VAC (1P + N + PE)	400 VAC (3P + N + PE)	400 VAC (3P + N + PE)	230 VAC (1P + N + PE)
Outlet B	Maximum output current	32 A	32 A	16 A	
	Maximum output power	7,4 kW	22 kW	22 kW	3,7 kW
	AC output voltage	230 VAC (1P + N + PE)	400 VAC (3P + N + PE)	400 VAC (3P + N + PE)	230 VAC (1P + N + PE)
Socket type	2x Type 2 Socket (lock system)	2x Type 2 Socket (lock system)	2x Type 2 Socket (lock system)	2x CEE/7	



Customisation Examples

eVolve series offers a wide frontal surface that can be easily customised.



Post eStreet Series

Solution with DSO inside of the EV charger



Application

Designed to be used in those scenarios where DSO (Distribution System Operator) components such as utility meter & fuses are to be necessarily installed. By fitting those inside the EV charger a lower initial investment is accomplished.

Concept Design

Considering the size of DSO components to be fitted inside, Post eStreet Series has been designed with a larger volume than other ground mount solutions from Circontrol (e.g. Post eVolve).

This has been achieved maintaining a consistent product range look, without forgetting robustness to withstand both operational and environmental daily conditions.

Product highlights

For Charge Point Operator / Owner

- The **Embedded Load Management** allows a lower TCO (Total Cost of Ownership) by charging two EVs simultaneously even when the charger is not supplied with its maximum output power.
- Its larger volume allows the integration of **DSO components** according to local standards (e.g. VDE-AR-N 4102 for Germany), thus reducing the initial investment of installing nearby an extra electrical cabinet to fit them.
- Its **frontal key-locked** door provides an easy access to the inside of the charger which results in a lower OpEx (Operating Expenditure) 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.
- **Stainless steel** housing with a robust structural design that provides protection to both mechanical stress and severe environmental conditions, increasing the charger lifespan and avoiding its replacement in just a few years.
- In terms of **communication**, either by its 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 diagnostic, etc.
- To comply with the most demanding requirements regarding billing, eStreet series includes **MID certified meters** readable from outside thanks to its window.

For Charge Point User

- Clear charging instructions and plug status are shown using a **backlight display**, increasing user satisfaction. This is especially useful when the charger has been previously reserved by another user.
- eStreet series offers a **flexible authentication**, meaning that the user can either authenticate before or after connecting the cable to the EV. Additionally, the authentication process can also be disabled for a 'plug & charge' use mode.
- **Accessibility for the disabled** has also been considered, complying with international standards regarding the height of connectors/display that facilitates its operation.

Post eStreet Series

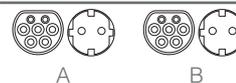
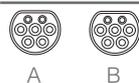
General Specifications

Network connection	10/100Base-TX (TCP-IP)
Interface protocol	OCPP 1.2, 1.5
Enclosure rating	IP54 / IK10
Enclosure material	Stainless steel
Enclosure door lock	Key lock
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	LCD Multi-language
Power limit control	Mode 3 PWM control according ISO/IEC 61851-1
Dimensions (D x W x H)	300x500x1600 mm
Weight	90 Kg

RFID Reader	ISO / IEC14443A / B MIFARE Classic/DESFire EV1 ISO 18092 / ECMA-340 NFC 13.56MHz
Meter	EN 50470 (MID European standards) or IEC 62052-11
Power output management	Embedded Load Management
Overcurrent protections	MCB (Curve C)
Safety protection	RCD Type B
Compatible with DLM	
Optional devices	
Low temperature kit	-30 °C to +45 °C
Surge protection	Four pole transient surge protector IEC 61643-1 (class II)
Smart meter	Ready to eHZ EDL21
DSO Components	KH00, NH00, Meter Panel
Wireless Communication	3G / GPRS / GSM

Models Specifications

Model	T	TM4	
AC power supply	3P + N + PE	3P + N + PE	
AC input voltage	400 V~ +/-10 %	400 V~ +/-10 %	
Maximum input current	64 A	64 A	
Maximum input power	44 kW	44 kW	
Number of plugs	2	4	
Outlet A	Maximum output current	32 A	16 A
	Maximum output power	22 kW	3,7 kW
	AC output voltage	400 V~ (3P + N + PE)	230 V~ (1P + N + PE)
Outlet B	Maximum output current	32 A	16 A
	Maximum output power	22 kW	3,7 kW
	AC output voltage	400 V~ (3P + N + PE)	230 V~ (1P + N + PE)
Socket Type	2x Type 2 Socket (Lock system)	2x Type 2 Socket (Lock system)	2x CEE/7



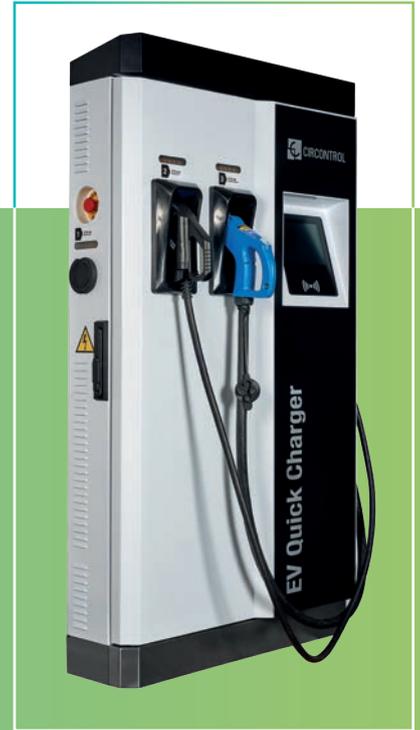
Customisation Examples

eStreet series offers a wide frontal surface that can be easily customised.



Raption 22

DC Fast Charging Station for Electric Vehicles



Application

Designed to be installed in both public access environments (urban spaces, shopping centres, airports, public car parks...) and private ones (companies with EV fleet, EV car rental/sharing...) with limited/expensive power availability and/or DC charging is appreciated but the main interest is to have the users spending (without rushing) on the surrounding businesses.

Concept Design

Conceived to address the main problem identified by Charge Point Owners / Operators when Fast Charging (low uptime), Raption 22 series bases its functioning in state-of-the-art modular power technology.

Another key attribute considered has been external design. Sophisticated, slim and robust are just some attributes that can be used to describe this series and that makes it ideal for any type of site (from the most stylish urban area to industrial sites).

Product highlights

For Charge Point Operator / Owner

- Its **modular power technology** ensures a very high uptime (reducing the non-operation expenditure) since in case of power module failure the rest of 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.
- **Simultaneous AC and DC** capability, enabling two cars charging at the same time.
- It offers a unique **connector care concept** by means of gun locking feature (optional) and cable floating design, which results on a reduction of cable breaking risk (i.e. lower OpEx and higher uptime).
- Its **frontal key-locked door** provides an easy access to the inside of the charger which results in a lower OpEx 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.

For Charge Point User

- Its **8" touch-screen daylight readable** not only provides clear charging instructions (e.g. wrong EV shift position to start the charge) and plug status (e.g. reserved charge point) but also allows the user to select amongst several languages.
- **Accessibility for the disabled** has also been considered, complying with international standards regarding the height of connectors/display that facilitates its operation.

Raption 22 Series

General Specifications

AC power supply	3P + N + PE
AC Voltage	400V AC +/- 10%
Power Factor	>0,98
Efficiency	94 % at nominal output power
Frequency	50 / 60 Hz
Electrical input protection	Main breaker disconnection
Overcurrent protections	MCB
Safety protection	RCD 30 mA Type A
Network connection	Ethernet 10/100 BaseTX
Interface protocol	OCPP 1.2 / 1.5
Compliance	CE / Combo-2 (DIN 70121; ISO15118) EN61851-1; EN61851-23 CHAdEMO certified
Enclosure rating	IP54 / IK10
Enclosure material	Stainless steel
Operating temperature	-5 °C to +50 °C
Ambient temperature storage	-40 °C to +60 °C
Operating humidity	5 % to 95 % Non-condensing
RFID system	ISO / IEC14443A / B MIFARE Classic / DESFire EV1 ISO 18092 / ECMA-340 NFC 13.56MHz

Display HMI	8" anti vandal touch screen
Power limit control	DC & AC by software
DC cable length CCS	3 meters
DC cable length CHAdEMO	3 meters
AC socket	Type 2 socket (lock system)
Lights for status indication	RGB colour indicator
Dimensions (D x W x H)	350x840x1700 mm
Weight	230 Kg
Cooling system	Air Cooling fans
Operational noise level	< 55 dBA
AC Meter	Complies with the EN 50470 (MID European standards) and IEC 62052-11

Compatible with DLM

Optional devices

Wireless Communication	3G / GPRS / GSM
Surge protection	Four pole transient surge protector IEC 61643-1 (class II)
Safety protection	RCD type B
Heater Climate control	-30 °C to + 45 °C
Cable Length	4.5m (all cables)
Anti-vandal connector protection	CHAdEMO, CCS (mechanical connector locking)

Models Specifications

Models	CCS CHA T2S32	CCS CHA	CCS	CHA
Maximum AC input current	64A	35A	35A	35A
Required power supply capacity	45 kVA	24 kVA	24 kVA	24 kVA
Maximum output power	22,5 kW (@400VDC) AC:22 kW	22,5 kW (@400VDC)	22,5 kW (@400VDC)	22,5 kW (@400VDC)
Output voltage range	DC: 150 - 500 VDC AC: 400V AC	DC:150 - 500 VDC	DC:150 - 500 VDC	DC:150 - 500 VDC
Maximum output current	DC:56A DC AC:32A AC	DC:56A DC	DC:56A DC	DC:56A DC
Number of plugs	3	2	1	1
Connector Type	CCS 2- JEVS G105 Type 2 socket (Lock system)	CCS 2 - JEVS G105	CCS 2	JEVS G105



Customisation Examples

Raption 22 series offers a wide frontal surface that can be **easily customised**.



Raption 50

DC Fast Charging Station for Electric Vehicles



Application

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

Concept Design

Conceived to address the main problem identified by Charge Point Owners / Operators when Fast Charging (low uptime), Raption 50 series bases its functioning in state-of-the-art modular power technology.

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

Product highlights

For Charge Point Operator / Owner

- Its **modular power technology** ensures a very high uptime (reducing the non-operation expenditure) since in case of power module failure the rest of 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** (e.g. from 25kW to 50kW) that offers a flexible solution to meet present and future EV growing battery demands.
- It offers a unique **connector care** concept by means of gun locking feature (optional) and cable floating design, which results on a reduction of cable breaking risk (i.e. lower OpEx and higher uptime).
- Its **double frontal key-locked door** provides an easy access to the inside of the charger which results in a lower OpEx 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.

For Charge Point User

- Its **8" touch-screen daylight readable** not only provides clear charging instructions (e.g. wrong EV shift position to start the charge) and plug status (e.g. reserved charge point) but also allows the user to select amongst several languages.
- User satisfaction is also increased due to its **build-in courtesy light** which both facilitates locating the charge point in dark areas and reading the messages contained in operator instruction labels.
- **Accessibility for the disabled** has also been considered, complying with international standards regarding the height of connectors/display that facilitates its operation.

Raption 50 Series

General Specifications

AC Power Supply	3P + N + PE
AC Voltage	400 V AC +/- 10%
Power Factor	>0,98
Efficiency	95 % at nominal output power
Frequency	50 / 60 Hz
Electrical input protection	Main breaker disconnection
Overcurrent protections	MCB
Safety protection	RCD 30mA Type A
Network connection	Ethernet 10/100BaseTX
Interface protocol	OCPP 1.2 / 1.5
Compliance	CE / Combo-2 (DIN 70121; ISO15118) EN61851-1; EN61851-23 CHAdeMO 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
RFID system	ISO / IEC14443A / B MIFARE Classic / DESFire EV1 ISO 18092 / ECMA-340 NFC 13.56MHz

Display HMI	8" anti vandal touch screen
Power limit control	DC & AC by software
DC cable length CCS	3 meters
DC cable length CHAdeMO	3 meters
AC cable length	3 meters
Lights for status indication	RGB colour indicator
Dimensions (D x W x H)	350x940x1800 mm
Weight	235 Kg
Cooling system	Air Cooling fans
Operational noise level	< 55 dBA
AC Meter	Complies with the EN 50470 (MID European standards) or IEC 62052-11

Compatible with DLM

Optional devices

Wireless Communication	4G LTE / 3G / GPRS / GSM
Surge protection	Four pole transient surge protector IEC 61643-1 (class II)
Safety protection	RCD type B
Cable Length	4.5m (all cables)
Anti-vandal connector protection	CHAdeMO, CCS (mechanical connector locking)
* 25 kW DC version	Power output DC of 25 kW (2 x 12,5 kW modules)

Models Specifications

Models	CCS CHA T2C63	CCS CHA T2S32	CCS CHA	CCS T2S32
Maximum AC input current	138 A (101 A*)	108 A (70 A*)	76 A (38 A*)	108 A (70 A*)
Required power supply capacity	96 kVA (70 kVA*)	75 kVA (48 kVA*)	53 kVA (26 kVA*)	75 kVA (48 kVA*)
Maximum output power	DC:50 kW (25 kW*) (@400 VDC) AC:43 kW	DC:50 kW (25 kW*) (@400 VDC) AC:22 kW	50 kW (25 kW*) (@400 VDC)	DC:50 kW (25 kW*) (@400 VDC) AC:22 kW
Output voltage range	DC: 50 - 500 V AC: 400 V	DC: 50 - 500 V AC: 400 V	DC:50 - 500 V	DC: 50 - 500 V AC: 400 V
Maximum output current	DC:125 A (63 A*) AC:63 A	DC:125 A (63 A*) AC:32 A	DC:125 A (63 A*)	DC:125A (63 A*) AC:32 A
Number of plugs	3	3	2	2
Connector Type	CCS 2 - JEVS G105 Type 2 tethered cable 	CCS 2 - JEVS G105 Type 2 socket (Lock system) 	CCS 2 - JEVS G105 	CCS 2 - Type 2 socket (Lock system) 

Models	CHA T2S32	CCS	CHA
Maximum AC input current	108 A (70 A*)	76 A (38 A*)	76 A (38 A*)
Required power supply capacity	75 kVA (48 kVA*)	53 kVA (26 kVA*)	53 kVA (26 kVA*)
Maximum output power	DC:50 kW (25 kW*) (@400 VDC) AC:22 kW	50 kW (25 kW*) (@400 VDC)	50 kW (25 kW*) (@400 VDC)
Output voltage range	DC: 50 - 500 V AC: 400 V	DC:50 - 500 V	DC:50 - 500 V
Maximum output current	DC:125 A (63 A*) AC:32 A	DC:125 A (63 A*)	DC:125A (63 A*)
Number of plugs	2	1	1
Connector Type	JEVS G105 - Type 2 socket (Lock system) 	CCS 2 	JEVS G105 

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

We offer products designed for public, private and domestic market. We installed our first EV charger in 2008 and since then we have reached 30.000 charging points in 52 different countries.

30k
Charging points

52
Countries



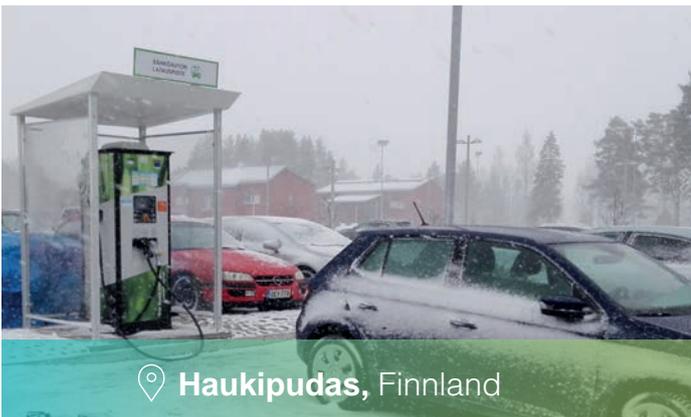
📍 **Kiev**, Ukraine



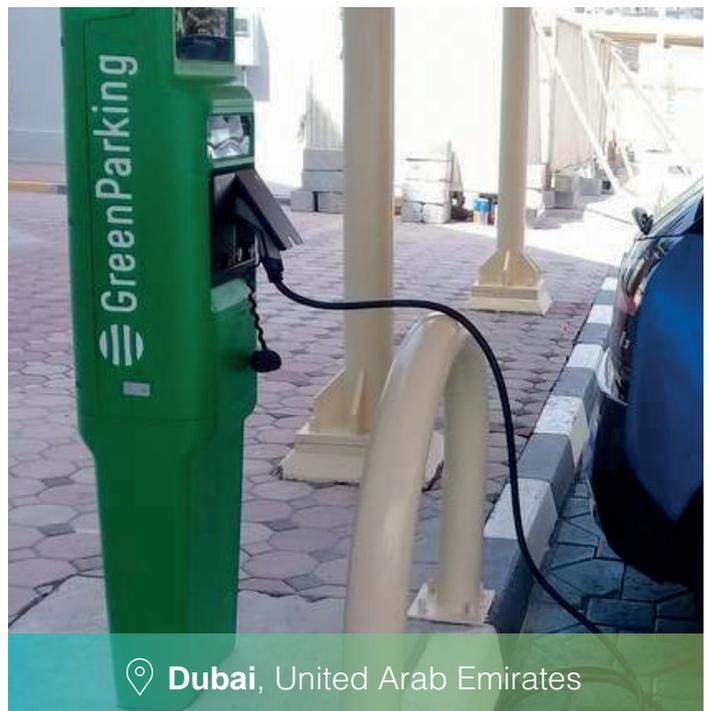
📍 **Ibiza**, Spain



📍 **London**, United Kingdom



📍 **Haukipudas**, Finland



📍 **Dubai**, United Arab Emirates



CIRCONTROL
Mobility & eMobility



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