



Post eVolve Smart

Charging Station for Electric Vehicles



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
- **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

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	-20 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)	450 mm x 290 mm x 1550 mm
Weight	55 Kg

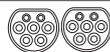
RFID Reader	ISO / IEC14443A / B MIFARE Classic/DESFire EV1 ISO 18092 / ECMA-340 NFC 13.56MHz
Meter	MID Class 1 - EN50470-3
Power output management	Embedded Power Balance
Overcurrent protections	MCB (curve C)
Safety protection	RCD Type A (30mA)

Optional devices

Low temperature kit	-30 °C to +45 °C
Surge protection	Four pole transient surge protector IEC 61643-1 (class II)
Safety protection	RCD Type B (30mA)
Wireless Communication	3G / GPRS / GSM

Models Specifications

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



Customisation Examples

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

