

eVolve Rapid Master Satellite

The most cost-effective multiple charging solution

Application

The eVolve Rapid series is designed to adapt DC charging to a compact format, applying it to contexts where AC charging is insufficient, thereby improving charging speed and reducing the required investment. The master-satellite system, which can be combined with the entire eVolve (AC) and Raption (DC) range, also makes it ideal for all multi-point and multi-speed charging scenarios. It is available in two formats, depending on the installation: wallbox and post.

Concept Design

The worlds of AC and DC come together in the eVolve Rapid to maintain high charging power in the typical compact AC format, making it possible to supply 25 kW of DC power to all electric vehicles. The master-satellite system minimises the initial investment (CAPEX) and operating expenses (OPEX) in facilities with various chargers. In turn, this makes it simple to manage all satellite chargers through the master, both in terms of communication and the user interface: a solution that avoids loss of performance and reduces costs.



Product highlights

- Using a typical **small AC enclosure**, eVolve Rapid is capable of supplying **25 kW of DC power in a fast charge** to any electric vehicle, cutting down charging times.
- The eVolve and eVolve Rapid chargers can be used as masters and/or satellites within the same charging system, and a Raption charger can be used as a master for the set. This allows for a **unique mixed modular charging system, combining master-satellite and AC-DC**, adapting any charging environment to meet any need.
- A single modem of the master device can be used as a **back-office integration point** (through OCPP 1.5, 1.6J or future 2.0), reducing operating costs.
- For environments without access to **backend systems** (OCPP), an AC charge balance function is available with user control via RFID.
- The **door at the front with lock and security key** enables maintenance access and makes it more difficult to vandalise. It also allows it to be installed next to a wall.

- As a **master charger**, it can operate up to 5 eVolve Rapid satellites or 8 eVolve satellites (16 AC outlets), and they can be combined with each other. For example, 3 DC outlets and 8 AC outlets can be installed to work together. User authentication from a single point reduces CAPEX costs.
- The eVolve Rapid range has been designed with Raption family technology to work within a **voltage range of 200 to 920 V.** This enables it to adapt to new and future EV models and facilitates the charging of other heavier vehicles, such as buses or lorries.
- Its 8-inch **anti-vandal colour touchscreen** can be read in daylight, not only displaying clear charging instructions and the operational status of the charger, but also allowing users to select their language from among over 30 options.
- The eVolve Rapid Master/Satellite features a **contactless payment** system that offers easy, intuitive and quick transactions.
- To meet the most stringent billing requirements, the eVolve Rapid series includes **MID-certified meters.**

Serie eVolve Rapid Master-Satellite

General specifications

AC power supply	3P + N + PE	
AC input voltage	400 V AC +/- 10% three-phase	
Power factor	>0.98	
Efficiency	95% at nominal output power	
Frequency	50/60 Hz	
Power supply capacity	27 kVA	
Maximum AC input current	39 A	
Maximum output current	70 A	
Compliance	CE / Combo-2 (DIN 70121; ISO 15118) IEC 61851-1; IEC 61851-23 IEC 61851-21-2	
Enclosure material	Aluminium and ABS	
Enclosure rating	IP54 and IK10	
Operating humidity	Up to 95%	
Operating temperature	Post: -35 °C and +45 °C Wallbox: Between -5 °C to + 45 °C	
Storage at room temperature	Between -40 °C and +60 °C	
Environment	Outdoor/indoor	
Indicator light	RGB colour indicator	
Enclosure door locking	Key lock	
Enclosure access	Door at front	
Cable length	5.5 metres	
Cable support	Post: Holder support and integrated cable roller Wallbox: cable roller	
Dimensions (D x W x H)	Post: 450 x 1750 x 290 mm Wallbox: 380 x 985 x 220 mm	

Weight	Post: 70 kg WallBox: 56 kg	
Meter	MID Meter Class 1 - EN 50470-3	
Post Master		
Connections	10/100TX (TCP-IP)	
Protocol	OCPP 1.5 / 1.6J / 2.0 HW Ready	
HMI screen	8" anti-vandal touchscreen	
RFID reader	ISO/IEC 14443 A/B MIFARE Classic/DESFire EV1 ISO 18092 ECMA-340 NFC 16.53MHz	
Wireless connection	EMEA - 4G LTE/WiFi Hotspot/ GPRS/GSM	
Connectivity	Switch TCP ethernet 8 ports	
Satellite		
Satellite Communication with the master	UTP ethernet	
	UTP ethernet Switch TPC ethernet 8 ports	
Communication with the master		
Communication with the master Connectivity		
Communication with the master Connectivity Optional devices	Switch TPC ethernet 8 ports	
Communication with the master Connectivity Optional devices Customisation	Switch TPC ethernet 8 ports Frontal Labelling LATAM/APAC - 4G LTE/GPRS/	
Communication with the master Connectivity Optional devices Customisation Wireless connection*	Switch TPC ethernet 8 ports Frontal Labelling LATAM/APAC - 4G LTE/GPRS/ GSM	
Communication with the master Connectivity Optional devices Customisation Wireless connection* Connectivity*	Switch TPC ethernet 8 ports Frontal Labelling LATAM/APAC - 4G LTE/GPRS/ GSM Switch TCP ethernet 16 ports Legic Advant / Legic Prime ISO 15693 / ISO 18092, Sony	

Model specifications

Models	Master CCS Post	Satellite CCS Post	Satellite CCS Wallbox
Safety protections	Type B RCD 30 mA C-curve MCB	Type B RCD 30 mA C-curve MCB	-
Maximum output power	25 kW	25 kW	25 kW
Output voltage	150-920 V DC	150-920 V DC	50-920 V DC
Connection	CCS2	CCS2	CCS2
			22 Date Charge State