

Master - Slave

The most cost-effective way for multiple charging

Application

Designed to minimize 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 workfleets or communities with a unique administrator, but also suitable for public access environment such as shopping center, parking lots, airports and others.

Concept Design

It shares the external concept design with the acclaimed eVolve series, so beyond its modern lines and robust housing, harsh weather conditions and user-friendly operation have 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 gets substantially reduced. This may represent a cost reduction in the electrical connection set up and a cost saving due to a minor energy contract.
- Also, by centralizing the smart capabilities into the Master, the hardware of the Slaves gets reduced, so combining Master-Slave is the **best choice to minimize 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), so communication fees also get 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 carparks without OCPP backend, standalone configuration offers **load balancing feature and user control through RFID**.
- 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.
- Its **8" daylight readable touch-screen** 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.
- To comply with the most demanding requirements regarding billing, eVolve series includes **MID certified meters**.
- eVolve series include 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.

Master - Slave

General Specifications

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 °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 ISO/IEC 61851-1
Dimensions	450 x 290 x 1550 mm
Weight	55 Kg
Power Output Management	Embedded Load Management
Overcurrent protections	MCB (Curve C)
Safety protection	RCD Type A (30mA)
Plug Type	Type 2 Socket

Master

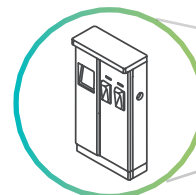
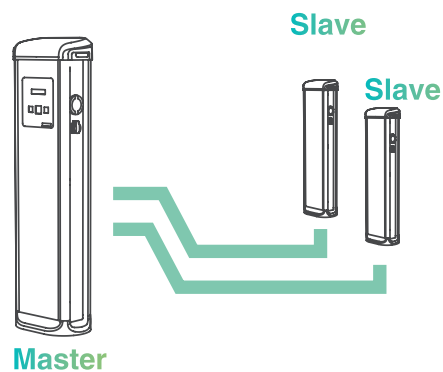
Network connection	10/100TX (TCP-IP)
Interface protocol	OCPP 1.5 (1.6 Optional)
Display HMI	8" anti vandal touch screen
RFID Reader	ISO/IEC 14443 A/B MIFARE Classic/DESFire EV1 ISO 18092 ECMA-340 NFC 16.53MHz

Slave

Master Communication	Ethernet UTP
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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 (only for Master)	4G LTE/WiFi Hotspot/GRPS/GSM
Anti Vandal Key	
Tethered cable (spring) (cable length: 4m)	Type 1 + Type 1 Type 2 + Type 2 Type 2 + Type 2 socket
Network hub (only for Master)	Switch TCP ethernet 8 ports Switch TCP ethernet 12 ports



*Raption 50 is also available for Master.

Models Specifications

Input	S One	T One	S	T	C63	
AC power supply	1P + N + PE	3P + N + PE	1P + N + PE	3P + N + PE	3P + N + PE	
AC input voltage	230 VAC +/-10%	400 VAC +/-10%	230 VAC +/-10%	400 VAC +/-10%	400 VAC +/-10%	
Maximum input current	32 A	32 A	64 A	64 A	63 A	
Maximum input power	7,4 kW	22 kW	14,8 kW	44 kW	44 kW	
Number of plugs	1	1	2	2	1	
Outlet A	Maximum output current	32 A	32 A	32 A	63 A	
	Maximum output power	7,4 kW	22 kW	7,4 kW	43 kW	
	AC output voltage	230 VAC (1P + N + PE)	400 VAC (3P + N + PE)	230 VAC (1P + N + PE)	400 VAC (3P + N + PE)	400 VAC (3P + N + PE)
Outlet B	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)		
Connection	Master	1x Type 2 Socket (lock system)	1x Type 2 Socket (lock system)	2x Type 2 Socket (lock system)	2x Type 2 Socket (lock system)	Not available
	Slave	Not available	Not available	2x Type 2 Socket (lock system)	2x Type 2 Socket (lock system)	1 x Type 2 Cable (4m)