Wallbox Master - Slave

The most cost-effective way for multiple charging

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 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 centralising the smart capabilities into the Master, the hardware of the Slaves gets 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 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** not only to minimise the human safety risk of electrical shock but also to ensure the maximum uptime due to independent protections per connector.
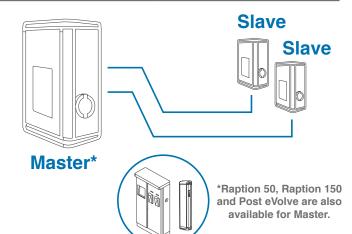
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General Specifications

Enclosure rating	IP54 / IK10
Enclosure material	Aluminium & ABS
Enclosure door lock	Key lock
Enclosure access	Frontal door
Operating temperature	-5 °C to + 45 ºC
Ambient temperature storage	-20 ºC to + 60 ºC
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	Small: 222 x 382 x 628 mm *(only available on Master S Zero and on Slave S)* Large: 222 x 382 x 928 mm
Weight	Small: 25 kg Large: 30 Kg
Power Output Management	Embedded Load Management
Type 2 Socket Protection	Locking System

Master	
Network connection	10/100TX (TCP-IP)
Interface protocol	OCPP 1.5 or OCPP 1.6J
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

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)
Type 2 Charging socket	Shutter
Wireless communication *(only in Master)*	4G LTE/WiFi Hotspot/GPRS/GSM/ 3G LATAM
Anti Vandal Key	
Tethered cable *(spring)* Cable length: 4m *(only available in Slave)*	Type 1 + Type 1
	Type 2 + Type 2
Network hub *(only available in Master)*	Switch TCP ethernet 8 ports
	Switch TCP ethernet 12 ports
RFID Extension	Legic Advant / Legic Prime ISO 15693 / ISO 18092, Sony FeliCa
Customisation	Fronyal Labelling

Slave
Slave
Master*

*Raption 50, Raption 150 and Post eVolve are also available for Master.

Models Specifications

Models	Master Zero	Master S One	Master T One	Master or Slave S	Master or Slave T
AC power supply	1P + N + PE	1P + N + PE	3P + N + PE	1P + N + PE	3P + N + PE
AC input voltage	230 VAC +/-10%	230 VAC +/-10%	400 VAC +/-10%	230 VAC +/-10%	400 VAC +/-10%
Maximum input current	0,15 mA	32 A	32 A	64 A	64 A
Maximum input power	35 W	7,4 kW	22 kW	14,8 kW	44 kW
Number of plugs	0	1	1	2	2
Outlet A Maximum output current		32 A	32 A	32 A	32 A
Outlet A Maximum output power		7,4 kW	22 kW	7,4 kW	22 kW
Outlet A AC output voltage		230 VAC (1P + N + PE)	400 VAC (3P + N + PE)	230 VAC (1P + N + PE)	400 VAC (3P + N + PE)
Outlet B Maximum output current				32 A	32 A
Outlet B Maximum output power				7,4 kW	22 kW
Outlet B AC output voltage				230 VAC (1P + N + PE)	400 VAC (3P + N + PE)
Connection Master	Not available	1x Type 2 Socket (lock system)	1x Type 2 Socket (lock system)	Check availability	Check availability
Connection Slave	Not available	Not available	Not available	2x Type 2 Socket (lock system)	2x Type 2 Socket (lock system)