

WallBox Smart

Charging Station for Electric Vehicles



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 |







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)   |