Green Motion Building Technical datasheet

Powering Business Worldwide

Discover Green Motion Building

Eaton Green Motion Building is an AC electric vehicle charger designed for both indoor and outdoor use in private and public parking facilities for multi-residential, light commercial and industrial applications. This electric vehicle charging station provides multiple benefits:

- Safe EV charging based on a proven EV charging technology
- Convenient charging suited to all types of private electric vehicles

Customizable EV charger suited to all types of applications

Green Motion Building was designed for indoor or outdoor use in multi-residential buildings or public spaces and suitable with all electric vehicles. With the RFID user authorization it is ideal for shared parking spaces while it is suitable even for small spaces as it allows for wall- or floor-mounting options.

Increase the value of your building and drive revenue

Reduce installation costs by avoiding expensive grid upgrades and control energy consumption at all times. The Green Motion Building enables billing through the certified way of measuring energy (MID) and integration with Eaton Charging network manager or other OCPP-based 3rd party CPO software or other billing platforms.

A future-proof EV charging

Ensure a future-ready building through scalable EV charger infrastructure. Easily integrate and manage chargers within building constraints, avoiding expensive grid upgrades. Control energy consumption at all times with static and dynamic load balancing. Connect up to 50 EV chargers with phase balancing and charger prioritization options. In line with Eaton's holistic approach to sustainable energy solutions, Green Motion Building is compatible with Eaton Building Energy Management Software, providing a platform to monitor and optimise usage of all energy assets including PV installation and Eaton Energy Storage systems.

Safe and reliable system with easy installation

Green Motion Building has been designed with safety in mind, with built-in earth protection, compatibility with single-phase IT grid installation, and emergency shutdown for EV Ready installations. Easy to install and configure with multiple networking options and configurations. The charger provides interoperability via OCPP and Modbus TCP/IP to 3rd party operators. Enabling a simple and seamless user experience, EV users can simply plug their electric vehicles in and charge.

Technical specifications

Technical disclaimer

All drawings, descriptions or illustrations contained in this document serve to provide a clear overview and/or technical explanation of the present product and its various components and accessories. In line with our goal to continuously improve the products and the customer service we provide, all specifications contained in this document are subject to change without notice.

Technical specifications

Power input	**AC EV charger**
Input voltage	1 x 230 V 50 Hz – 1 phase 3 x 400 V 50 Hz – 3 phase
Input current	1 x 16 A (3.7 kW) – 1 phase 1 x 32 A (7.4 kW) – 1 phase 3 x 16 A (11 kW) – 3 phase 3 x 32 A (22 kW) – 3 phase
Power output	
Output power	3.7 kW to 22 kW
Output type	Type 2 cable (Mode 3) or Socket (T2 or T2S)
Type of cables	Straight
Simultaneous charging	1
Environmental	
Operating temperature	–25 °C to +45 °C
Altitude	Up to 2000 m
Installation	Wall-mounted, indoor or outdoor
Humidity	< 95% relative humidity
Mechanical	
Mounting method	Wall-mounted Floor-mounted column (Optional)
Dimensions (W x H x D) in mm	285.5 x 264 x 116
Weight of the charging station excluding cables	3 kg
Cable length	5 meters
Standards	
Conformity	IEC 61851-1
Degree of protection	IP54
Earth fault protection	Built-in 6mA DC RDC-DD protection acc. to IEC62955
Impact strength	IK08
Warranty	
Warranty	5 years
Segment	
Segment	Multi-family homes (MFH) and parking facilities
User interface and control	
User interface	LED strip status indicator MID display
Access control	RFID
Remote management	Eaton Charging network manager
Connectivity	
Communication interface	Wi-Fi, Ethernet
Network interface	Wi-Fi, Ethernet by default LTE 4G (Optional)
Protocol	OCPP 1.6J
EV charging balancing	
Load balancing	Yes
Phase balancing	Yes
E-metering	
MID	Yes

Certifications and standards

General	
Charging mode	Mode 3 in accordance with EN/IEC 61851-1 AC charging
Cable	
Version	Type 2 cable: up to 32 A/400 V AC in accordance with EN/IEC 62196-1 and EN/IEC 62196-2
Electromagnetic compatibility	
Product	EN 61851-21-2, EN 61000-6-1, EN 61000-6-3, EN 61000-3-3, EN 61000-3-11, EN 61000-3-12

Product references

Reference	Description
GMB2202BCAA00A00	GMB 3.7-22kW T2S MID 4GS
GMB2201BBAA00A00	GMB 3.7-22kW T2 Socket MID 4G
GMB2203BAAA00A00	GMB 3.7-22kW 5m T2C MID
GMB2203BBAA00A00	GMB 3.7-22kW 5m T2C MID 4G
GMB2201BAAA00A00	GMB 3.7-22kW T2 Socket MID
GMB2202BAAA00A00	GMB 3.7-22kW T2S MID
GMB2202BBAA00A00	GMB 3.7-22kW T2S MID 4G

Accessory references

Reference	Description
XCI3025221	Cable holder
XCI3025021	Foot-mounted column for one charger
XCI3025121	Foot-mounted column for two chargers
XCI000411	RFID Card x 5
GMA02AI000000A00	N.1 ethernet extender kit
GMA02AL000000A00	N.2 ethernet extenders kit

Protection device reference

Type	Reference
20 A breaker for the single-phase 16 A charging current	EMCH120
20 A breaker for the three-phase 16 A charging current	EMCH320, PLSM-C20/3N-MW
40 A breaker for the single-phase 32 A charging current	EMCH140
40 A breaker for the three-phase 32 A charging current	EMCH340, PLSM-C40/3N-MW
RCD type A for the single-phase 16 A charging current	PFIM-25/2/003-A-MW
RCD type A for the single-phase 32 A charging current	PFIM-40/2/003-A-MW
RCD type A for the three-phase 16 A charging current	PFIM-25/4/003-A-MW
RCD type A for the three-phase 32 A charging current	PFIM-40/4/003-A-MW
20 A RCBO (MCB+RCD Type A) for the three-phase 16 A charging current	MRB4-20/3N/C/003-A

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