eMS home energy management system home

The eMS home is recommended as a dynamic energy and load management system for use in private households. The fully integrated three-phase smart meter measures the current energy consumption at the grid connection point and allows the charging current to be dynamically adjusted and distributed in individual and group installations with up to six eMH1 wallboxes. This helps to avoid overloading the house connection. Thanks to surplus metering, PV systems can be integrated to allow for PV surplus charging. The eMS home web interface can be accessed via LAN for configuration and monitoring purposes. This can display the charging status and the current load on the individual phases in a conventional browser.



General information

Model	eMS home
Product number	EMSHOME
EAN number	4011721187334
Commodity code	90328900
Packaging unit (PU)	1 unit
Items supplied	eMS home Energy Management System, quick start guide, connector plug for RS485 interface, 2 terminating resistors, 2 jumpers, 3 warning stickers

Charging modes

Don't charge	None of the connected vehicles are charged.
Mains charging	The vehicle is charged at any time, regardless of whether photovoltaic power is available or the current is drawn from the grid.
Charging with surplus PV	The vehicle is only charged when photovoltaic electricity pro- duced in the house itself is available, which would otherwise be fed into the grid.
Hybrid charging	The desired minimum amount of solar energy that should be available for the charging process can be set. The residual ener- gy is drawn from the grid.

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Mains power supply

Connection cross section in line with EN 60204	10 – 25 mm² (mechanical: 1.5 – 25 mm²)
Tightening torque for screw terminals	2.0 Nm
Starting current	< 25 mA
Power supply	110 V~, ± 10% or 230 V~, ± 10%
Frequency	50/60 Hz, ± 5 %
Internal consumption P _{max}	5 W

Compatibility

Compatible model series	ABL eMH1 wallboxes

eMS home enables group installations with up to six eMH1 wallboxes.

Measuring circuit for measuring category III

Limit current I _N / phase	63 A
Rated voltage	max. 230 / 400 V AC
Frequency	50/60 Hz, ± 5 %

Measured values and measurement accuracy

Voltage	± 0.5 %*
Current	± 0.5 %*
Active power	± 1.0 %*
Apparent power	± 1.0 %*
Reactive power	± 1.0 %*
Power factor	± 1.0 %*
Active energy	Class 1*
Reactive energy	Class 1*

*Note: When using external current transformers, the respective measurement accuracy must be taken into account.

Operating conditions

Ambient temperature during transportation / storage	-25 to 70°C
Operating temperature	-25 to 45°C
Relative humidity	up to 75% annual average, non-condensing
Class of protection	11
IP rating	IP2X
Maximum elevation	≤ 2,000 m above mean sea level

Housing

Туре	Top hat rail module
Fixing type	TH35 top hat rail
Housing material	Glass-fibre-reinforced polyamide
Housing colour	Grey
Interfaces	2 × LAN (10 / 100 Mbit) 2 × RS485 (half-duplex, max. 115200 baud)
Net dimensions (H×W×D)	88 × 70 × 65 mm
Gross dimensions (H×W×D)	89 × 162 × 122 mm
Weight (net)	0.3 kg
Weight (gross)	0.4 kg

Optional accessories

Cable conversion current transformer for eMS home	eMS CT
see website at www.ablmobility.de	

Subject to change: All performance characteristics, technical and other specifications are subject to change without prior notice.