Wallbox eM4 Single / Twin

Controller/Extender with charging socket 22 kW

The Wallbox eM4 Single / Twin is the future-proof and custom-fit charging solution for companies and private households, which is also recommended for use in the housing industry and in public charging parks and multi-storey car parks as a version that complies with calibration law. Up to two vehicles can be charged at the single or two Type 2 charging sockets from ABL. A connected charging cable can be permanently locked/unlocked via the app.

SIMPLE INSTALLATION AND OPERATION

The cable entry is designed flexibly so that installation can easily be carried out by one person in a short time. Configuration is quick and straightforward with the ABL Configuration app for Android and iOS, which is easy to use thanks to its intuitive user interface with visual and acoustic feedback.

TAILOR-MADE SOLUTION

The Wallbox eM4 Controller has an integrated communication and control unit. In group installations, additional charging points can be economically integrated via LAN or WLAN using the Extender variants of the eM4. Alternatively, both the Controller and the Extender variant can be operated independently. The static load management of a Controller/Extender group installation can optionally be enhanced with dynamic load management with the ABL Energy Meter accessory.

QUALITY AND SAFETY

The robust design and high-quality workmanship of the Wallbox eM4 protect it from external influences. The wallbox comes pre-installed and ready for connection thanks to the integrated Type A RCCB or RCBO and DC residual current detection. All ABL wallboxes are made in Germany and comply with the highest safety standards.

FURTHER PRODUCT ADVANTAGES

Backend/OCPP connection (Controller) via LTE, LAN or WLAN

Group installations with up to 30 charge points, scalable to a charging cluster with up to 100 charge points

Standardised interfaces for integration into external systems via OCPP Smart Charging (Controller) or Modbus TCP

MID-compliant energy meters

Plug & Charge ready (ISO15118)

IP55 and IK10

Calibration law compliant charging (only variants compliant with calibration law)

GENERAL INFORMATION

Model series	eM4 Single | eM4 Twin
Commodity code	85371091
Packaging unit (PU)	1 unit
Dimensions of packaging unit	Single: 600 × 400 × 252 mm | Twin: 581 × 503 × 230 mm (H×W×D)
Packaging unit weight	Single: Approx. 10.7 kg | Twin: Approx. 13 kg
Items supplied	Wallbox, printed safety instructions, printed instructions on "Calibration law compliant charging" (only variants compliant with calibration law), LTE stick (only Controller), 2 keys, installation kit

INPUT / MAINS SUPPLY

External power supply	Supply cable with cable cross-section up to a maximum of 10 mm² or cable diameter ≤ 25 mm
Rated voltage	230 / 400 V (3-phase)
Rated current	32 A
Rated frequency	50 Hz
Upstream fuse	32 A, required on-site, C characteristic recommended (check national regulation for specific requirements)
Connection	Direct connection to the terminal block

OUTPUT / VEHICLE CONNECTION

Charging port in acc. with IEC 62196-2	1 or 2 lockable Type 2 charging sockets with shutter (depending on model)
Output voltage	230 / 400 V
Max. charging current	32 A
Maximum charging power (3-ph)	Single: 1 × 22 kW | Twin: 2 × 11 kW or 1 × 22 kW*
Maximum charging power (1-ph)	Single: 1 × 7.4 kW | Twin: 2 × 3.7 kW or 1 × 7.4 kW

* See section **Operating conditions**

PROTECTION / INTEGRATED COMPONENTS

RCCB	RCCB, type A, 30 mA (depending on model)
RCBO	RCBO, C32, type A, 30 mA (depending on model)
DC fault current detection	Electronic, $I_{\Delta n\,d.c.} \geq 6$ mA
Energy meter	MID compliant
Load switching	Installation contactor, 4-pole, 40 A
Weld detection	No charging possible with welded contactors
Overcurrent protection	Integrated into firmware, disconnection at 120% after 10 seconds
Temperature monitoring	Internal, charging current reduction or shut down

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COMMUNICATION / INTERFACES

Operating status indicator	LED
Access control	RFID, QR code or smartphone app
Communication EV	In acc. with IEC 61851-1 Mode 3
Communication Controller/Extender	LAN, WLAN
Backend communication	LAN, WLAN, LTE (Controller only)
Protocols for external systems	OCPP 1.5 + 1.6, OCPP Smart Charging, Modbus TCP
External release contact	Potential-free contact in accordance with VDE-AR-N 4100

STANDARDS / DIRECTIVES

IEC 61851-1	IEC 61851-21-2
2011/65/EU	2014/53/EU
In acc. with MessEV Modul B (only variants that comply with the calibration law)

OPERATING CONDITIONS

Storage temperature	-30 to 75°C
Operating temperature*	-25 to 50°C
Relative humidity	5 to 95%, no condensation
Class of protection	I
Overvoltage category	III
Degree of pollution	3
Degree of protection (housing)	IP55
Impact strength	IK10
Maximum elevation	≤ 2,000 m AMSL
Power dissipation	Single: 5 W	Twin: 8 W

* eM4 Twin: with derating of power output depending on external temperature and conditions

HOUSING

Type	Wall-mounted housing
Fixing type	Wall mounting using installation rail and installation kit
Material (housing / cover)	Plastic
Colour (housing / cover)	Black (similar to RAL 9011 / RAL 9017)
Locking mechanism	1 or 2 integrated lever locks
Dimensions (H×W×D)	Single: 516 × 306.5 × 145 mm (W: 290 mm without protrusions)	Twin: 516 × 428 × 145 mm (W: 395 mm without protrusions)
Weight (net)	Single: Approx. 7.2 kg	Twin: Approx. 10.5 kg

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MODEL OVERVIEW

	Product number	Calibration law compliance	Shutter	Manufacturer number	EAN number
eM4 Single Controller	100000327	No	No	4WS-22CNS2	4011721194332
	100000453	Yes	No	4WS-22CES2	4011721194165
	100000451	No	Yes	4WS-22CNH2	4011721194189
eM4 Single Extender	100000328	No	No	4WS-22ENS2	4011721194349
	100000454	Yes	No	4WS-22EES2	4011721194158
	100000452	No	Yes	4WS-22ENH2	4011721194172
eM4 Twin Controller RCCB	100000325	No	No	4WT-22CNS2	4011721194318
	100000319	Yes	No	4WT-22CES2	4011721194202
	100000317	No	Yes	4WT-22CNH2	4011721194226
eM4 Twin Controller RCBO	100000321	No	Yes	4WTA22CNH2	4011721194387
	100000323	No	No	4WTA22CNS2	4011721194363
eM4 Twin Extender RCCB	100000326	No	No	4WT-22ENS2	4011721194325
	100000320	Yes	No	4WT-22EES2	4011721194196
	100000318	No	Yes	4WT-22ENH2	4011721194219
eM4 Twin Extender RCBO	100000322	No	Yes	4WTA22ENH2	4011721194370
	100000324	No	No	4WTA22ENS2	4011721194356

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OPTIONAL ACCESSORIES

eM4 Single

POLEM4 Single mounting pole*

100000361

POLE Slim mounting pole for one eM4 Single*

100000245

POLE Slim mounting pole for two eM4 Single*

100000246

Weather protection roof

WPR12

eM4 Twin

POLEM4 Twin mounting pole*

100000192

POLE Slim mounting pole for one eM4 Twin*

100000191

POLE Slim mounting pole for two eM4 Twin*

100000237

Weather protection roof

WPR36

* Charging station available separately

eM4 Single | eM4 Twin

Cable storage holder with charging plug adapter

CABHOLD

ABL Energy Meter

100000193

Individual lock (different locking circuits)

100000214, [...], 100000230

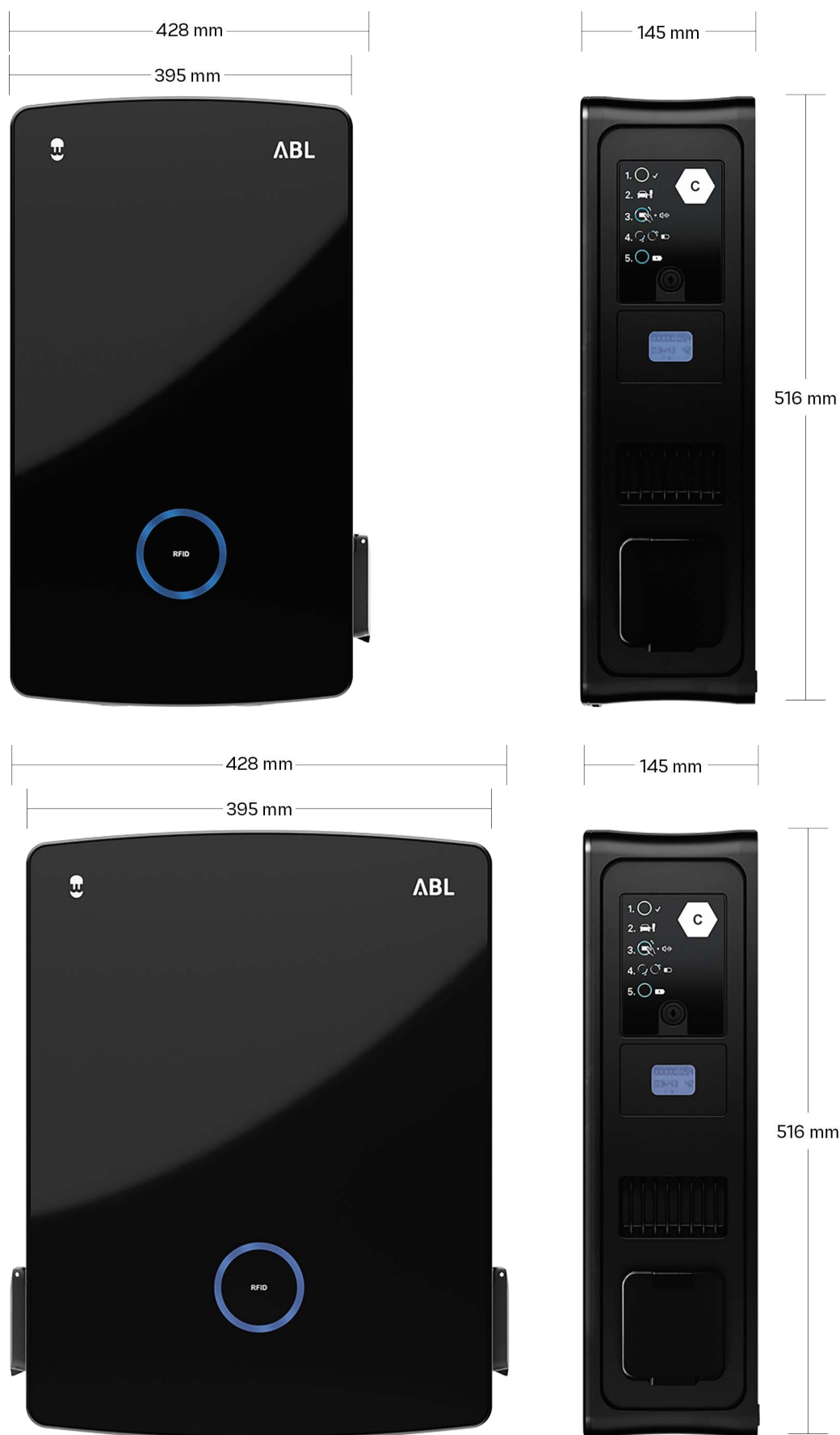**Type 2 charging cable (various cable lengths)**

CC2010, [...], CC3275

Type 2 to Type 1 adapter cable

LAKK2K1

RFID-Keyfob

100000253

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PRODUCT DIMENSIONS

428 mm

395 mm

145 mm

516 mm

428 mm

395 mm

145 mm

516 mm

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

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