AC charging controller - EV-CC-AC1-M3-CBC-RCM-ETH - 1018701

Please be informed that the data shown in this PDF Document is generated from our Online Catalog. Please find the complete data in the user's documentation. Our General Terms of Use for Downloads are valid (http://phoenixcontact.com/download)

AC charging controller in accordance with IEC 61851-1, client or stand-alone, Modbus/TCP via Ethernet, connection for RFID reader and energy meter via RS-485, DC residual current monitoring, connector release in the event of power failure

Product Description

Mode 3 controller for charging electric vehicles in accordance with IEC 61851-1 for charging case B and C with integrated DC residual current monitoring and Ethernet communication interface.

Key Commercial Data

Packing unit	1 pc
GTIN	4 055626 503691
GTIN	4055626503691
Weight per Piece (excluding packing)	620.000 g
Custom tariff number	85371098
Country of origin	Germany

Technical data

Product definition

Application	AC charging controller for private and commercial applications (EU/CN)
Standards/regulations	IEC 61851-1
Charging mode	Mode 3, Case B + C
Number of supported charging points	1
Locking release in the event of mains failure	Integrated release function of the locking actuator for disconnection of Infrastructure Plug and Infrastructure Socket Outlet
Conformance	CE-compliant

Dimensions

AC charging controller - EV-CC-AC1-M3-CBC-RCM-ETH - 1018701

Technical data

Dimensions

Height	90 mm
Width	162 mm
Depth	61.00 mm

Device supply

Supply voltage	230 V
Supply voltage range	100 V AC ... 240 V AC (nominal voltage range)
Nominal power consumption	< 3 W (No-load)
Power consumption	< 10 W (maximum)
Frequency range	50 Hz ... 60 Hz

Measuring range of the residual current

Rated frequency f_n	≤ 2000 Hz
Nominal differential current	± 300 mA
Residual current $I_{\Delta n}$	30 mA (AC)
	6 mA (DC)
Tripping time for $I_{\Delta n}$	< 180 ms
Rated current I_n	32 A (Three-phase, 4x6 mm²)
	48 A (Single-phase)
Response time for 2 x $I_{\Delta n}$	< 70 ms
Tripping time for 5x$I_{\Delta n}$	< 20 ms

Measuring current transducer

Connection method	Connector
Diameter of measuring coil	15 mm

Switching outputs

Control of charging contactor	Relay output $C_{1.2}$
Minimum switching capacity	4000 VA
Maximum switching voltage	250 V AC (External supply)
Max. switching current	16 A
Control of locking actuator	Motor switching output
Maximum switching voltage	12 V (Internal supply)
Max. switching current	1 A (maximum)

Digital outputs

Control of additional functions	4 digital outputs
Connection technology	Screw connection
Maximum output voltage	30 V
Maximum output current	0.2 A (Total current for all outputs; internally supplied)

AC charging controller - EV-CC-AC1-M3-CBC-RCM-ETH - 1018701

Technical data

Digital outputs

Maximum output current per channel	0.6 A (Per output; externally supplied)

Inputs

Number of digital inputs	5
Description of the input	Digital input
Nominal current I_N	≤ 4 mA
Nominal input voltage U_N	12 V
Input voltage range U1	0 V ... 3 V (Off)
Input voltage range U2	9 V ... 15 V (On)

RS-485 data interfaces

Number of interfaces	1 (for energy measurement device and RFID reader)
Bus system	RS-485
Connection method	Screw connection
Number of supported devices	2
Transmission speed	4.8 kbps ... 115.2 kbps (adjustable)
Protocols supported	Modbus/RTU (Master)

Ethernet data interfaces

Number of interfaces	1
Connection method	RJ45 jack
Transmission speed	10/100 Mbps
Transmission length	100 m
Protocols supported	Modbus/TCP

Ambient conditions

Ambient temperature (operation)	-25 °C ... 60 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Max. altitude	< 2000 m
Permissible humidity (operation)	30 % ... 95 % (non-condensing)
Degree of protection	IP20
Degree of pollution	2 IEC 60664-1
Overvoltage category	II

Connection data

Connection method	Screw connection
Conductor cross section flexible	0.2 mm² ... 2.5 mm²
Conductor cross section solid	0.2 mm² ... 4 mm²
Conductor cross section AWG	24 ... 12
Connection method	Screw connection

AC charging controller - EV-CC-AC1-M3-CBC-RCM-ETH - 1018701

Technical data

Connection data

Conductor cross section flexible	0.2 mm² ... 1 mm²
Conductor cross section solid	0.14 mm² ... 1.5 mm²
Conductor cross section AWG	26 ... 16

EMC data

Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU
Noise emission	EN 61000-6-3
Noise immunity	EN 61000-6-2
Low Voltage Directive	Conformance with Low Voltage Directive 2014/35/EC
Housing	DIN 43880

Mounting

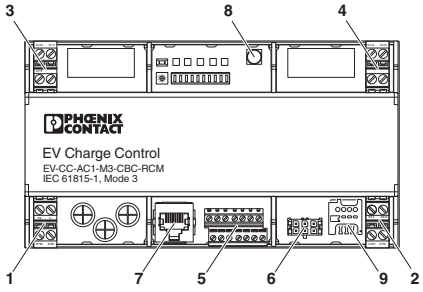
Mounting position	any

Environmental Product Compliance

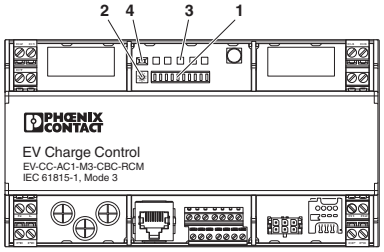
China RoHS	Environmentally Friendly Use Period = 50 years
	For details about hazardous substances go to tab “Downloads”, Category “Manufacturer's declaration”

Drawings

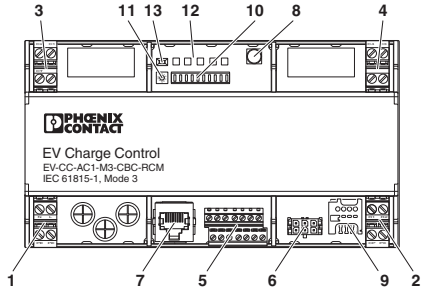
Schematic diagram



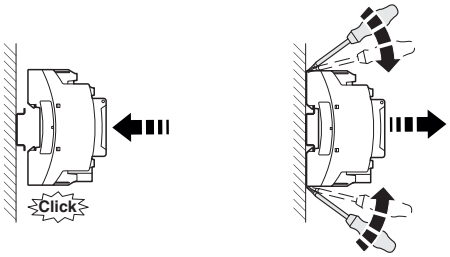
Schematic diagram



Schematic diagram

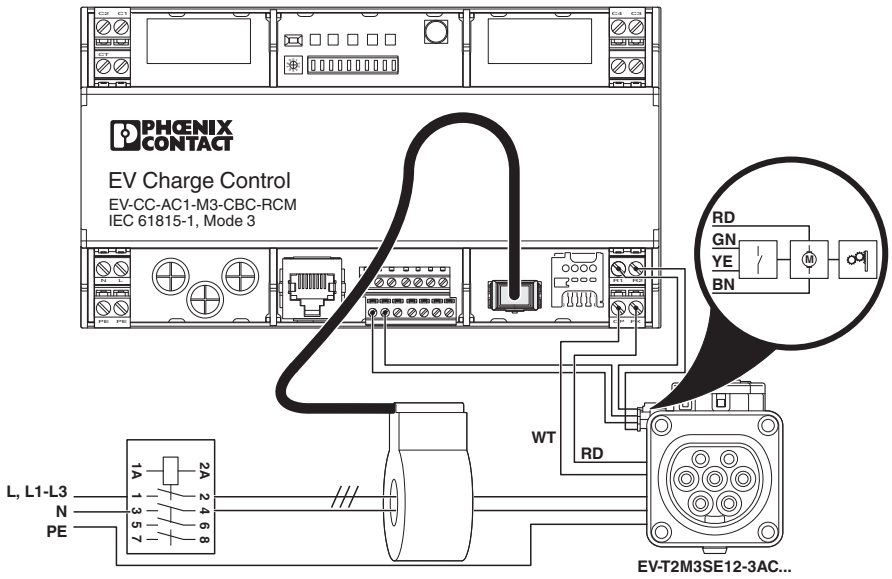


Schematic diagram

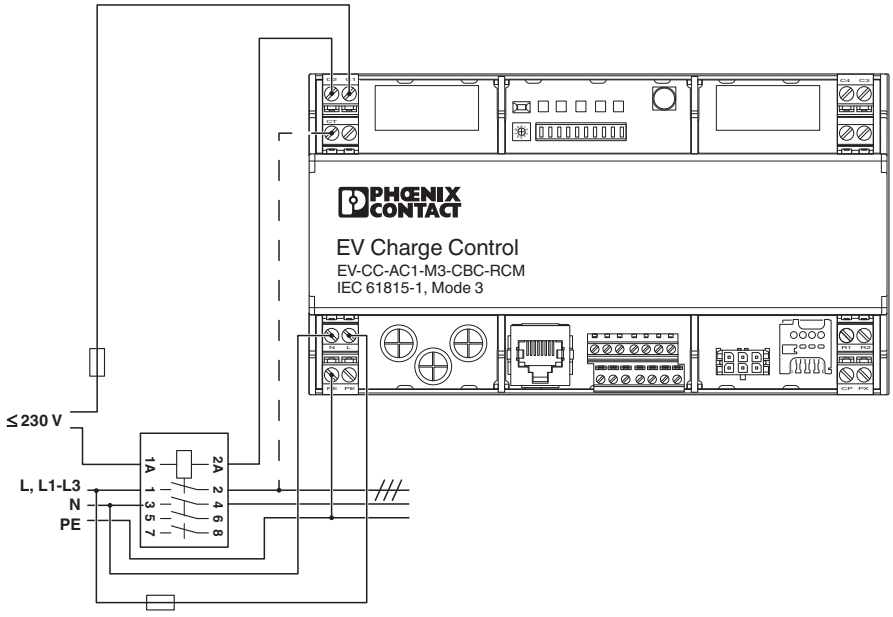


AC charging controller - EV-CC-AC1-M3-CBC-RCM-ETH - 1018701

Connection diagram

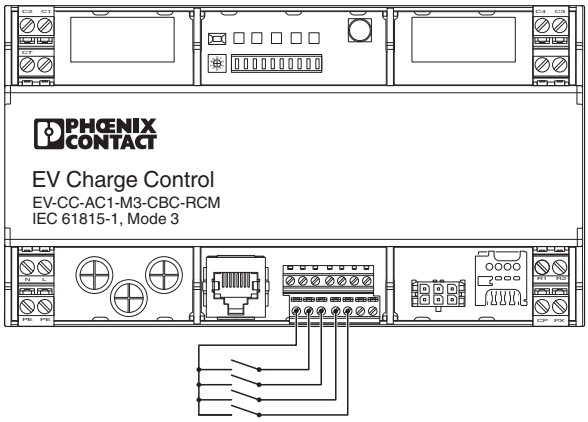


Connection diagram

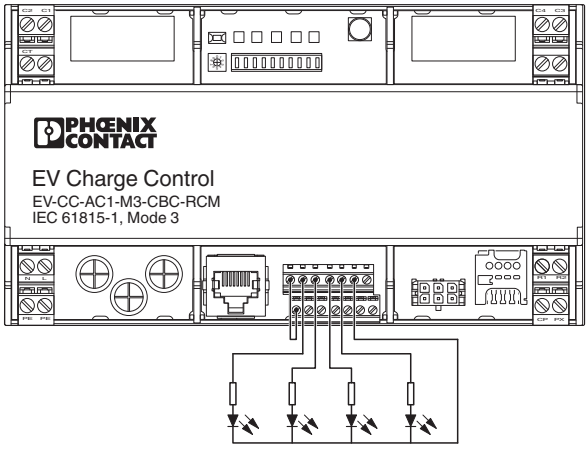


AC charging controller - EV-CC-AC1-M3-CBC-RCM-ETH - 1018701

Connection diagram

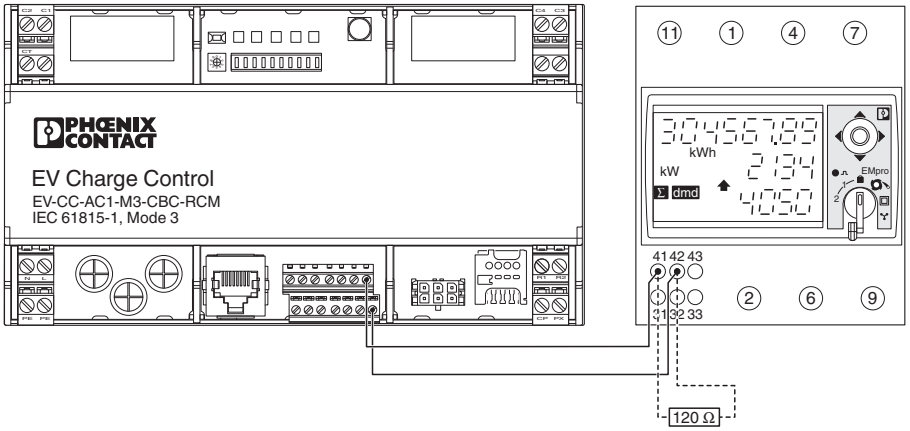


Connection diagram

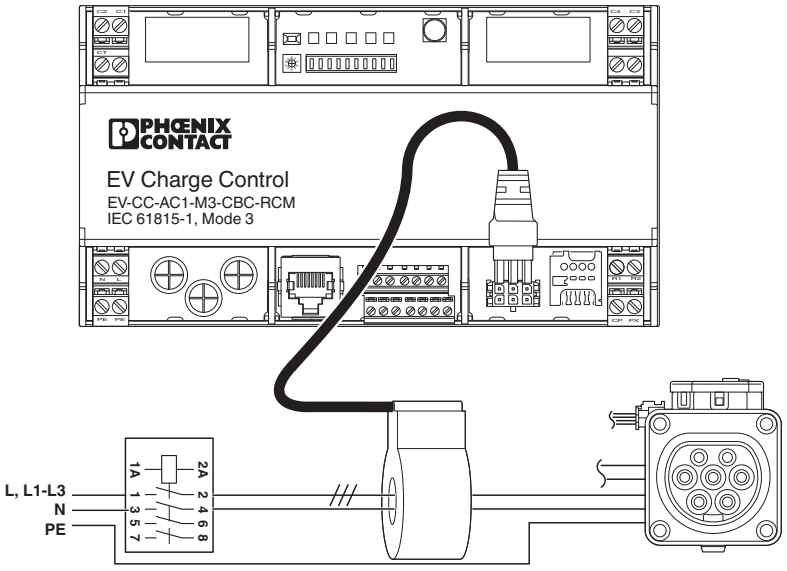


AC charging controller - EV-CC-AC1-M3-CBC-RCM-ETH - 1018701

Connection diagram

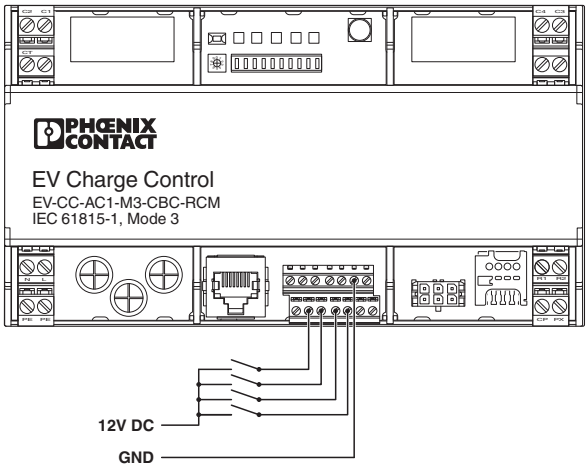


Connection diagram

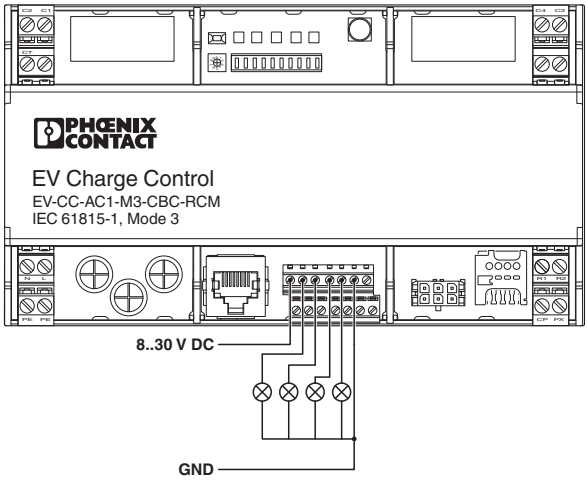


AC charging controller - EV-CC-AC1-M3-CBC-RCM-ETH - 1018701

Connection diagram

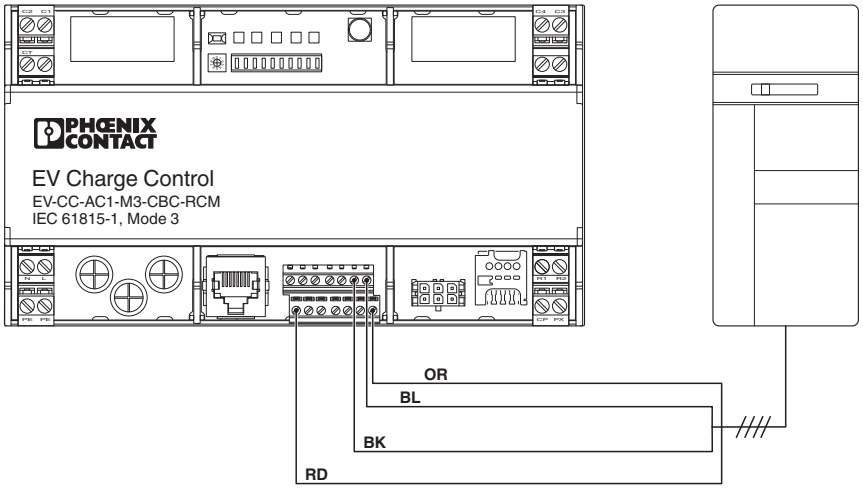


Connection diagram

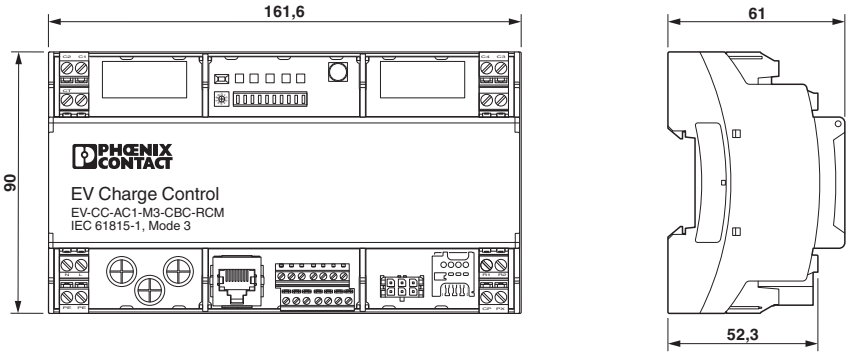


AC charging controller - EV-CC-AC1-M3-CBC-RCM-ETH - 1018701

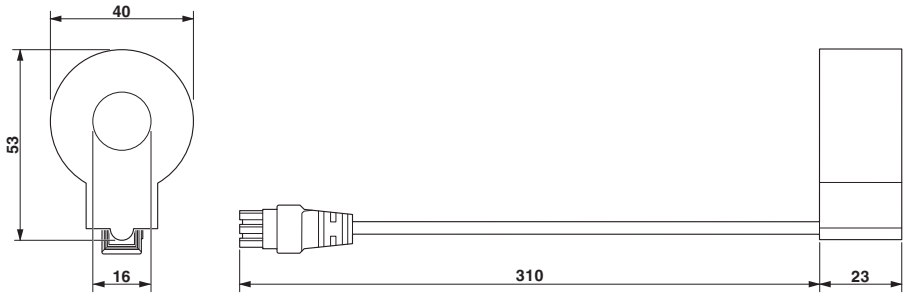
Connection diagram



Dimensional drawing

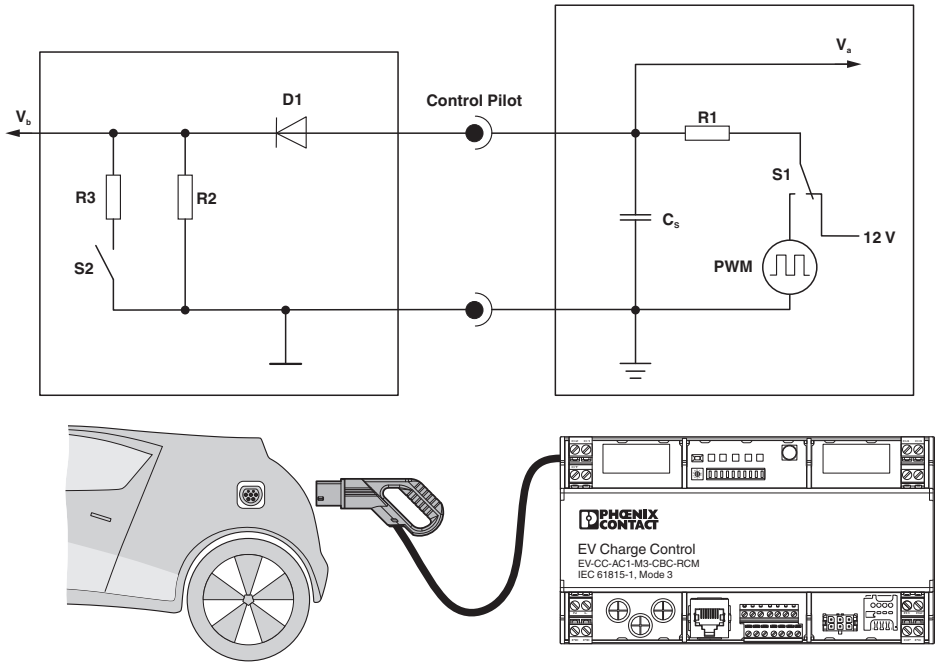


Dimensional drawing

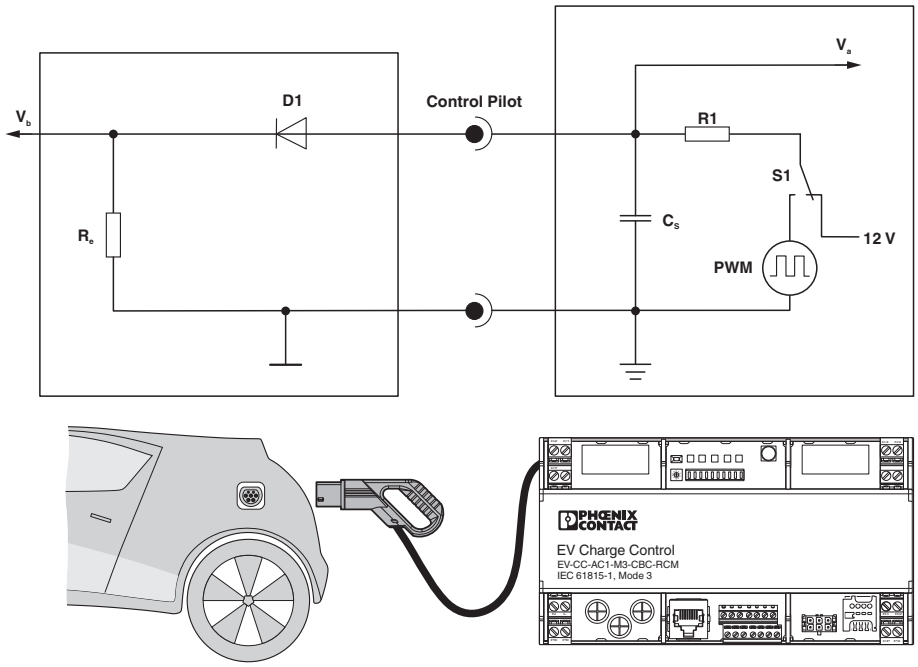


AC charging controller - EV-CC-AC1-M3-CBC-RCM-ETH - 1018701

Schematic diagram



Schematic diagram



AC charging controller - EV-CC-AC1-M3-CBC-RCM-ETH - 1018701

Classifications

eCl@ss

eCl@ss 10.0.1	27144703
eCl@ss 11.0	27144703
eCl@ss 9.0	27144703

ETIM

ETIM 6.0	EC002889
ETIM 7.0	EC002889

UNSPSC

UNSPSC 18.0	39121801
UNSPSC 19.0	39121801
UNSPSC 20.0	39121801
UNSPSC 21.0	39121801

Accessories

Accessories

Infrastructure socket outlet

Socket Outlet - EV-T2M3SE12-3AC32A-0,7M6,0E10 - 1405214

CHARX connect, Socket Outlet, rear protective cover screw connection, For charging electric vehicles (EV) with alternating current (AC), Compatible with infrastructure charging plugs, Type 2, IEC 62196-2, 32 A / 480 V (AC), Single wires, length: 0.7 m, Locking actuator: 12 V, 4-position, Rear panel mounting, Generation 1, “PHOENIX CONTACT” logo

---

Socket Outlet - EV-T2M3SE12-3AC20A-0,7M2,5E10 - 1405213

CHARX connect, Socket Outlet, rear protective cover screw connection, For charging electric vehicles (EV) with alternating current (AC), Compatible with infrastructure charging plugs, Type 2, IEC 62196-2, 20 A / 480 V (AC), Single wires, length: 0.7 m, Locking actuator: 12 V, 4-position, Rear panel mounting, Generation 1, “PHOENIX CONTACT” logo

---

Power meter

AC charging controller - EV-CC-AC1-M3-CBC-RCM-ETH - 1018701

Accessories

Measuring instrument - EEM-EM357 - 2908588

Three-phase power meter for active power measurement with direct measurement in networks of up to 500 V / 80 A, with S0 output, with digital input and RS-485 interface, certified in accordance with the MID directive

---

Protective cover for Socket Outlet

Protective covers - EV-T2SC - 1405217

CHARX connect, Protective covers, self-closing, rear protective cover screw connection, For attaching to infrastructure charging sockets, Type 2, IEC 62196-2, Front mounting, M5 thread, Generation 1, Embossed PHOENIX CONTACT logo

---