AC charging controller - EV-CC-AC1-M3-CBC-RCM-ETH-3G - 1018702

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AC charging controller in accordance with IEC 61851-1, master for load distribution to up to 5 slaves, OCPP 1.6J via 3G modem, Modbus/TCP via Ethernet, connection for RFID reader and energy meter via RS-485, DC residual current monitoring, connector release in case 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, Ethernet communication interface and 3G mobile network modem.

Key Commercial Data

Packing unit	1 pc
GTIN	4 055626 503974
GTIN	4055626503974

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

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)

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Device supply

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)

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)

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Ethernet data interfaces

Number of interfaces	1
Connection method	RJ45 jack
Transmission speed	10/100 Mbps
Transmission length	100 m
Protocols supported	Modbus/TCP
Number of slaves	max. 5

Wireless interfaces

Interface description	HSPA/GSM/GPRS/EDGE cellular interface for communicating with higher-level management systems using the OCPP 1.6J communication protocol
Frequency	900 MHz (HSPA)
	2100 MHz (HSPA)
	850 MHz (GSM/GPRS/EDGE)
	900 MHz (GSM/GPRS/EDGE)
	1800 MHz (GSM/GPRS/EDGE)
	1900 MHz (GSM/GPRS/EDGE)
Impedance	50 Ω
Transmission power	2 W (GSM 850 (Class 4))
	2 W (GSM 950 (Class 4))
	1 W (GSM 1800 (Class 1))
	1 W (GSM 1900 (Class 1))
	+ 24 old TXBdBm (UMTS/HSPA (Class 3))
Antenna connection	1
	SMA (male)
SIM card	Micro-SIM
Protocols supported	OCPP 1.6J

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

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
Conductor cross section flexible	0.2 mm² ... 1 mm²

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Technical data

Connection data

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

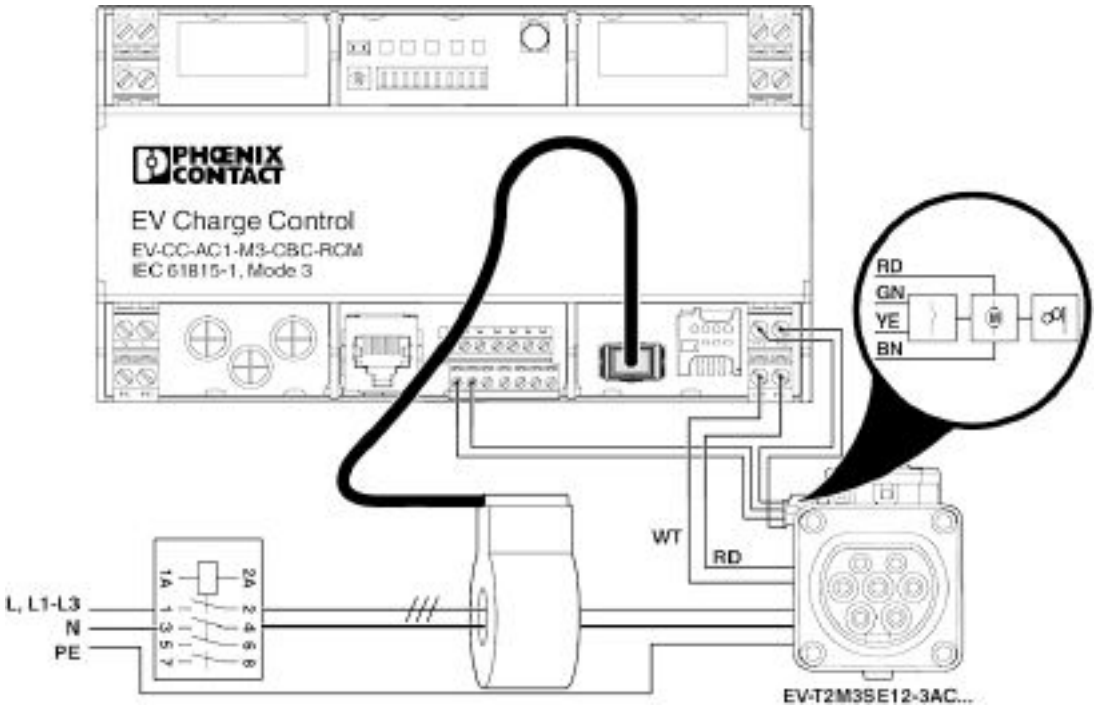
Mounting position	any
Assembly instructions	DIN rail mounting

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

Connection diagram



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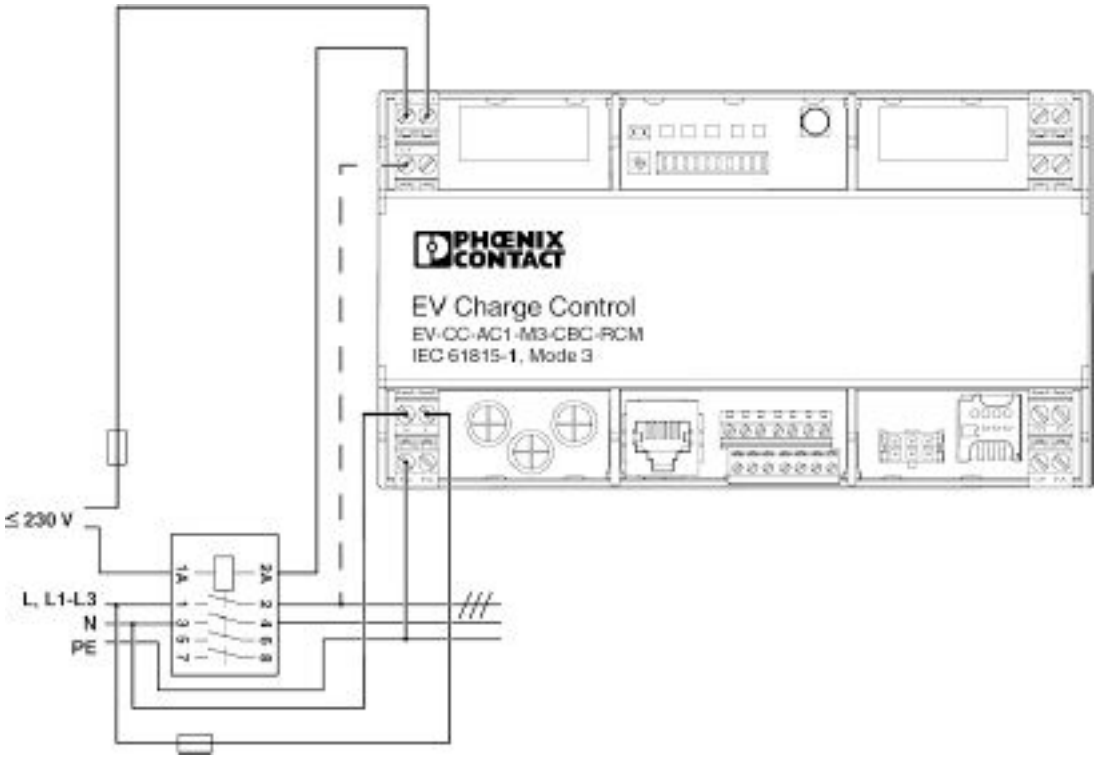

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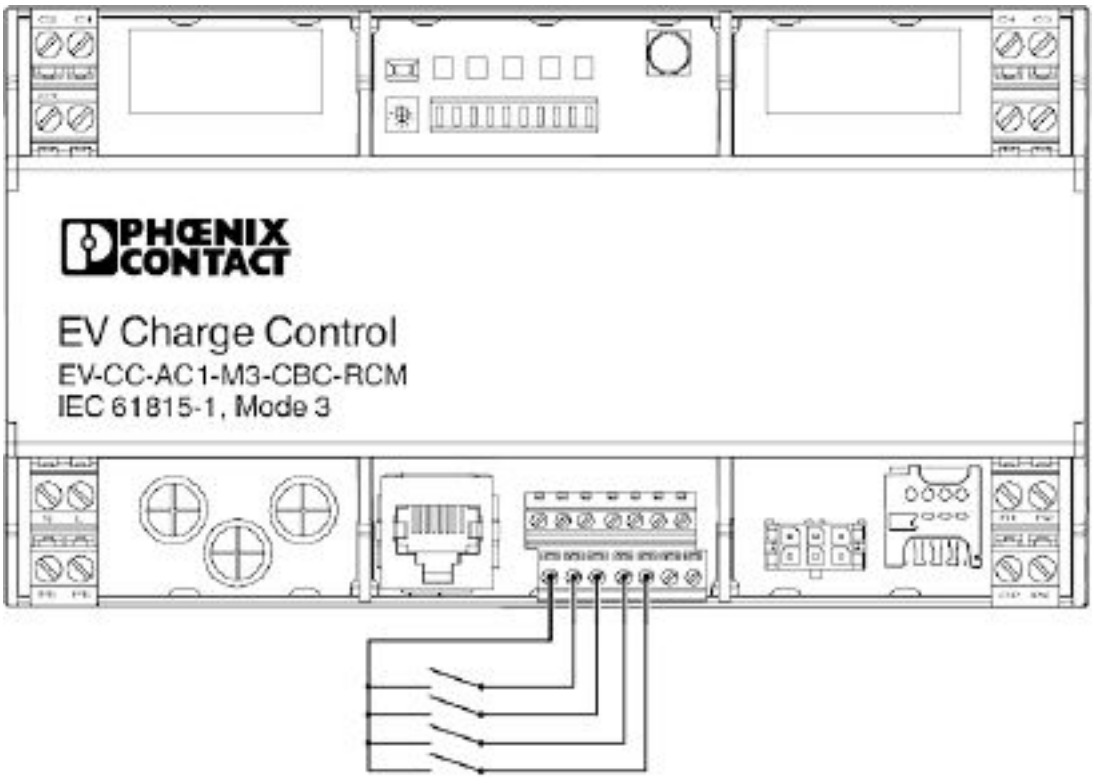

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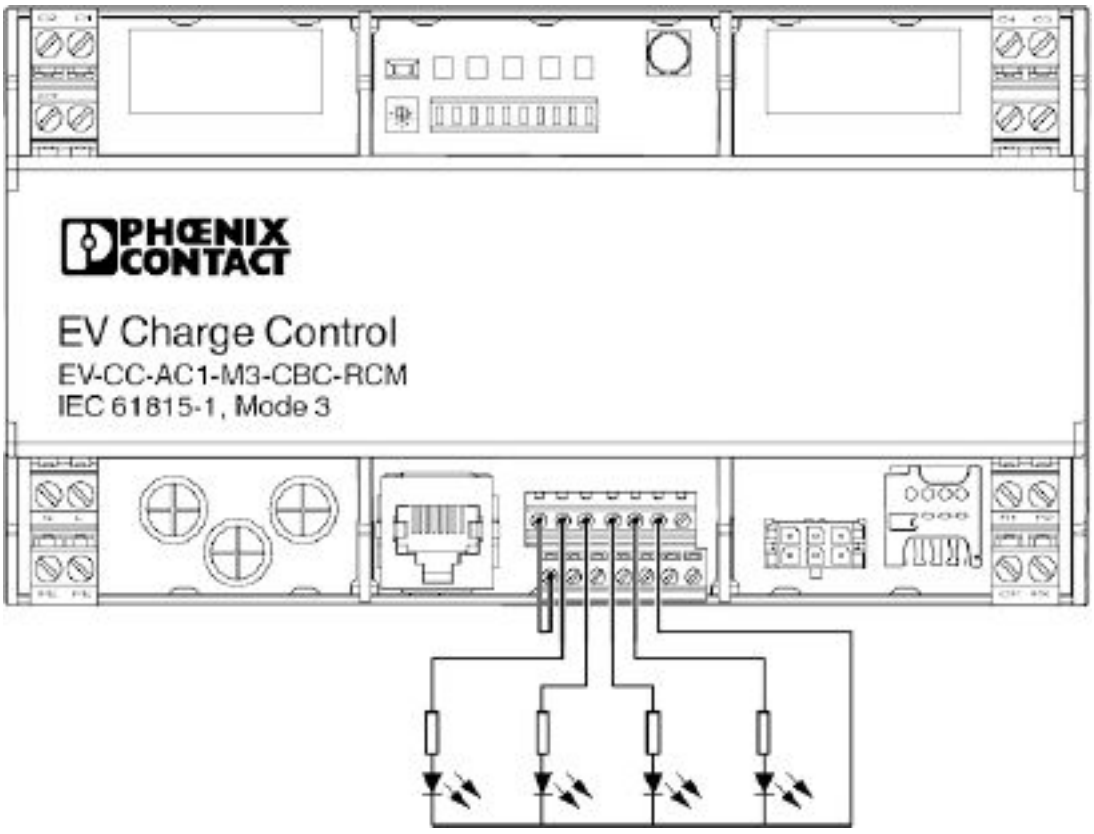

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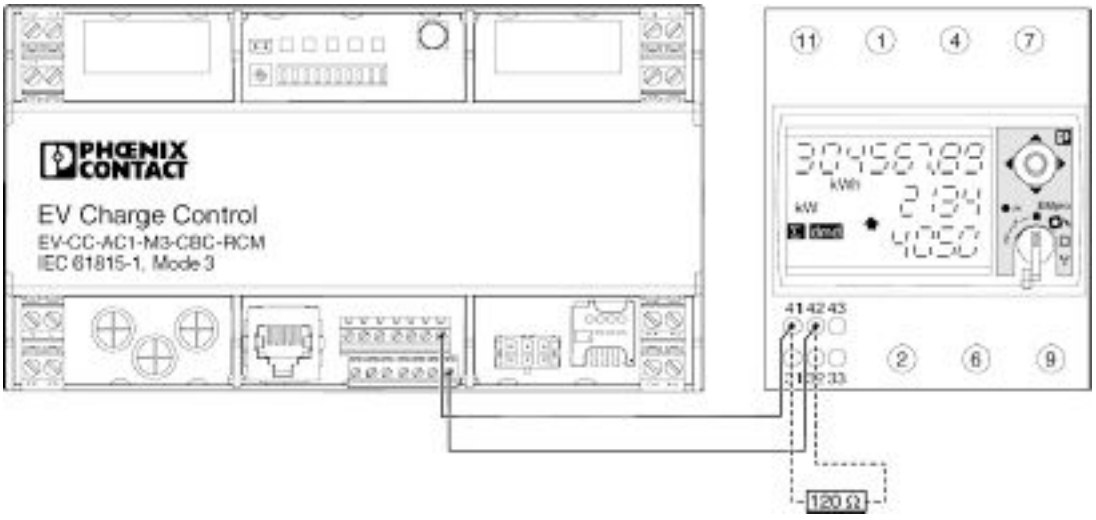

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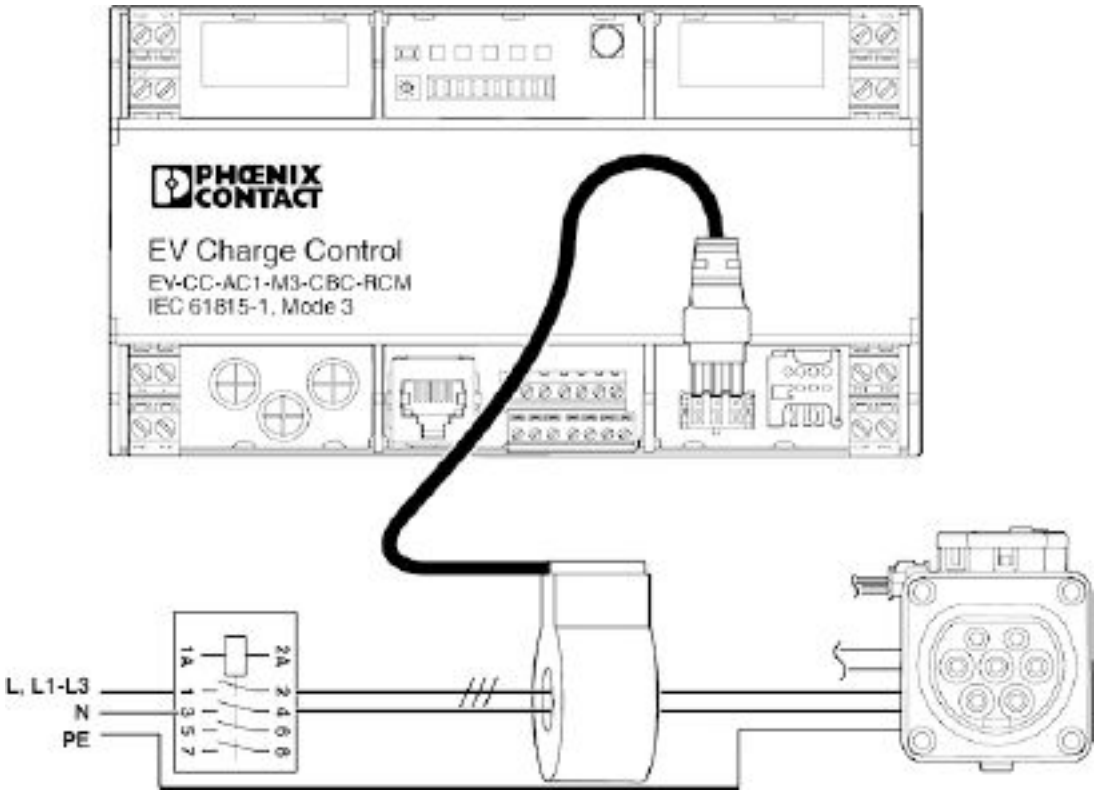

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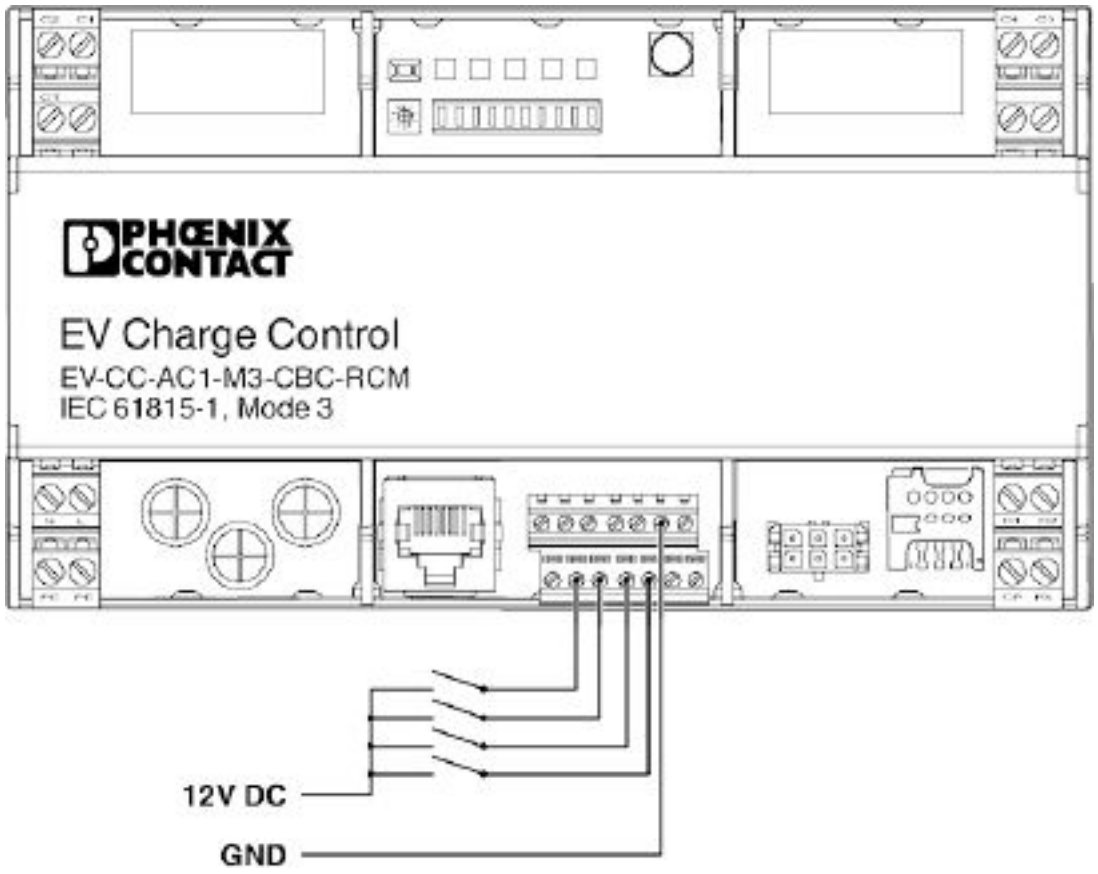

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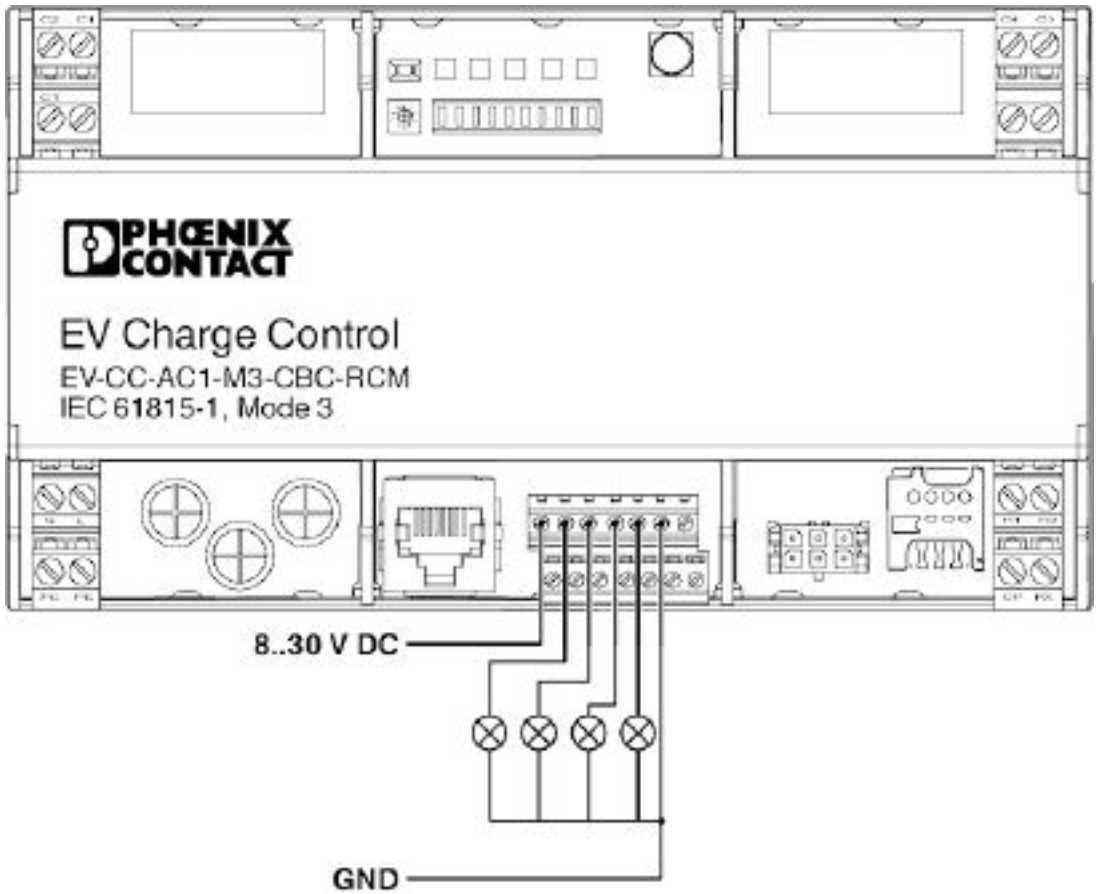

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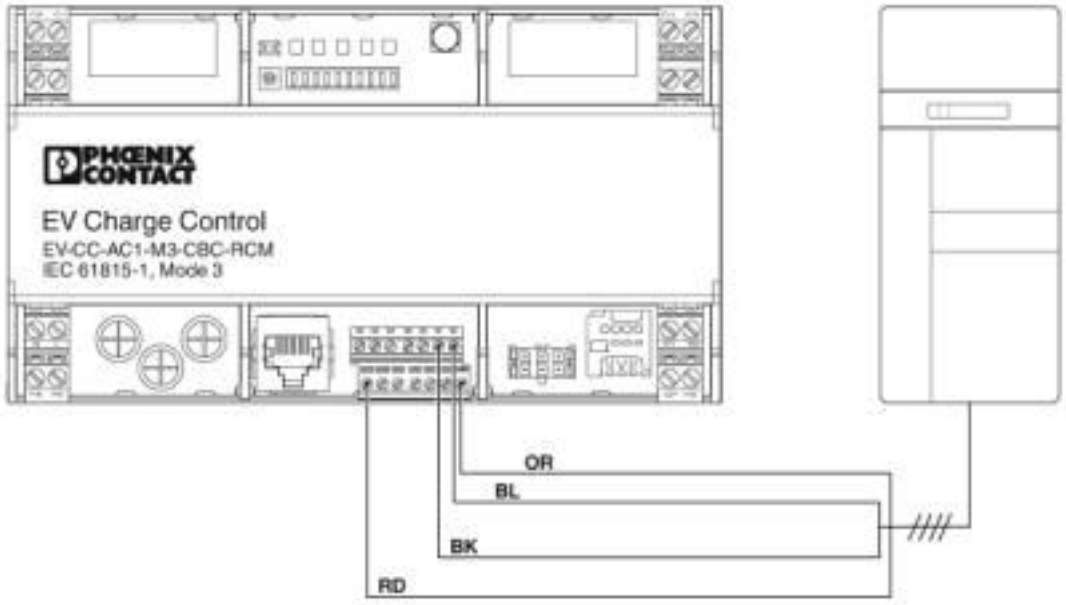

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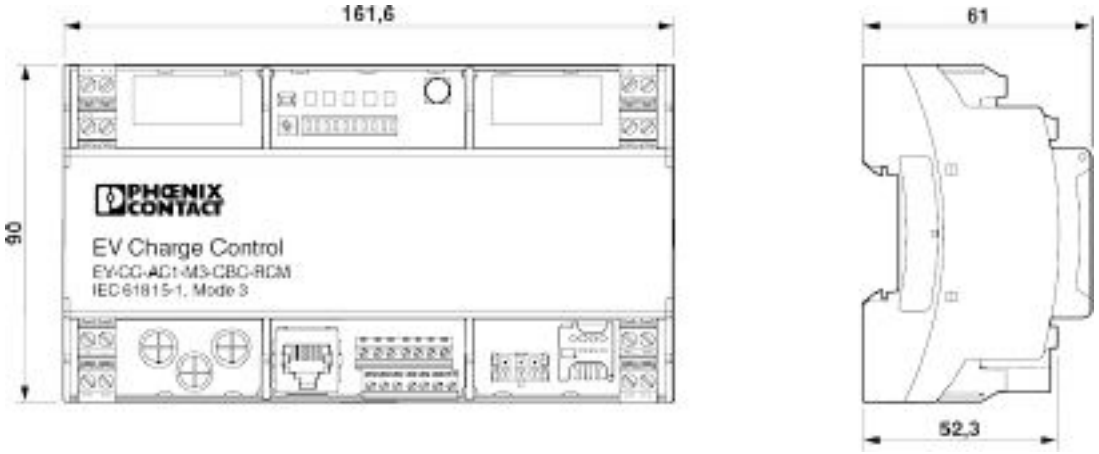
Dimensional drawing



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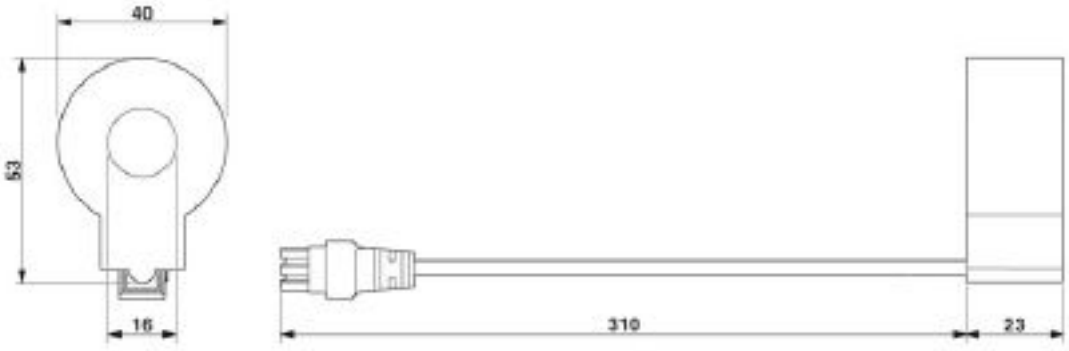

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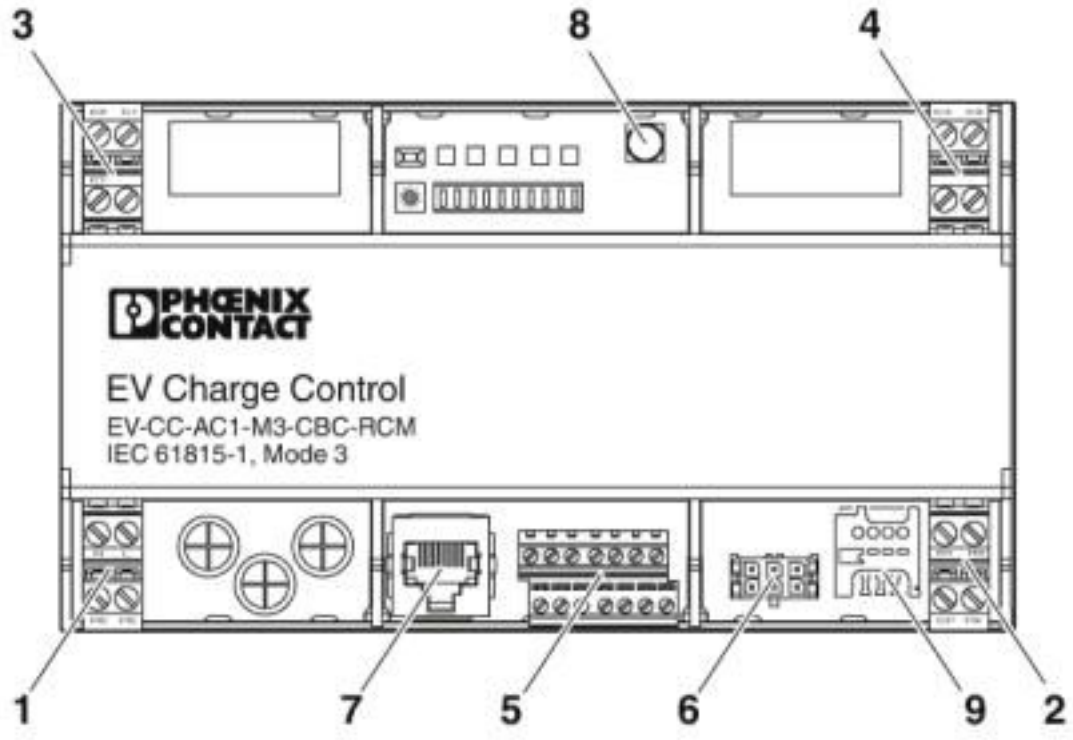
Schematic diagram



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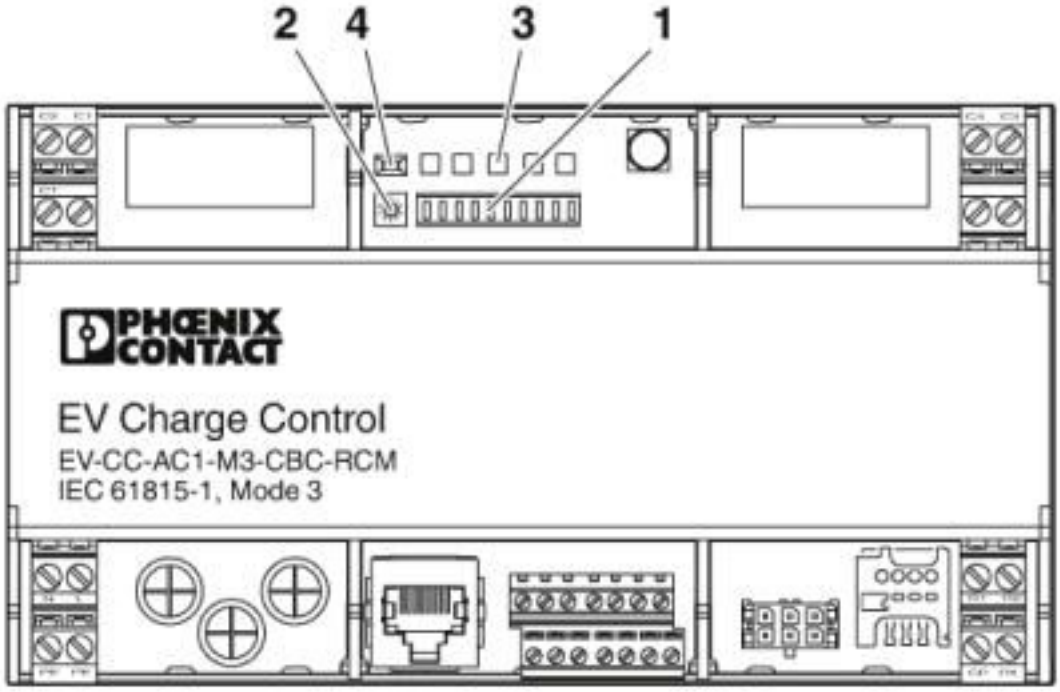

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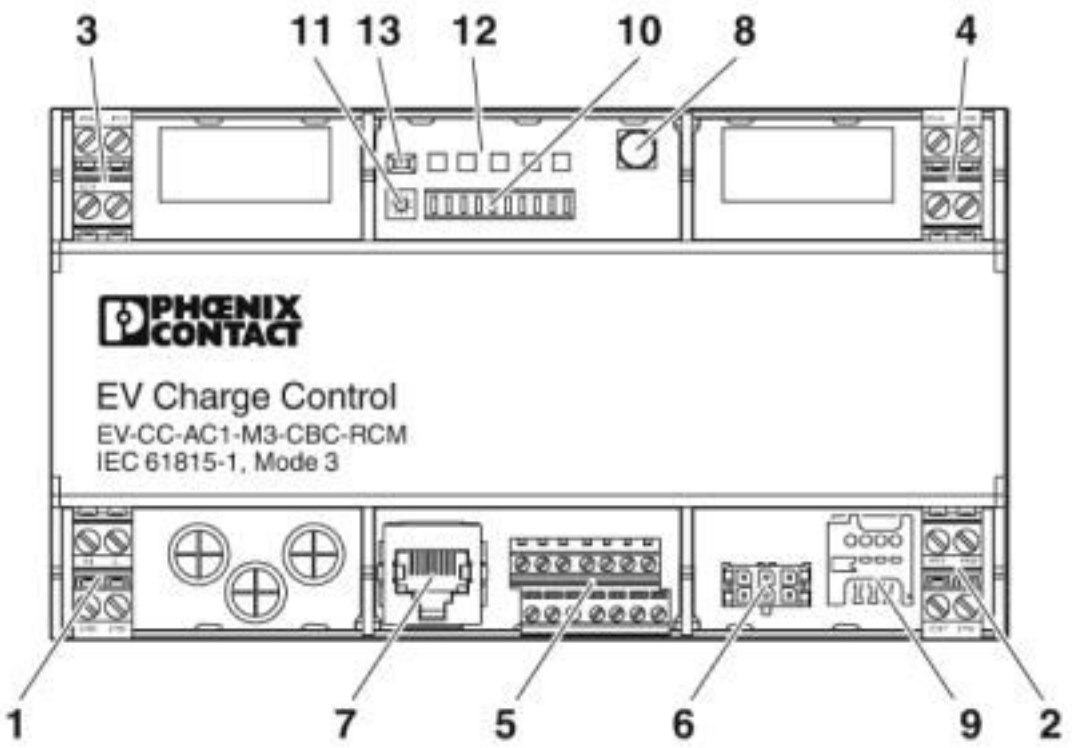

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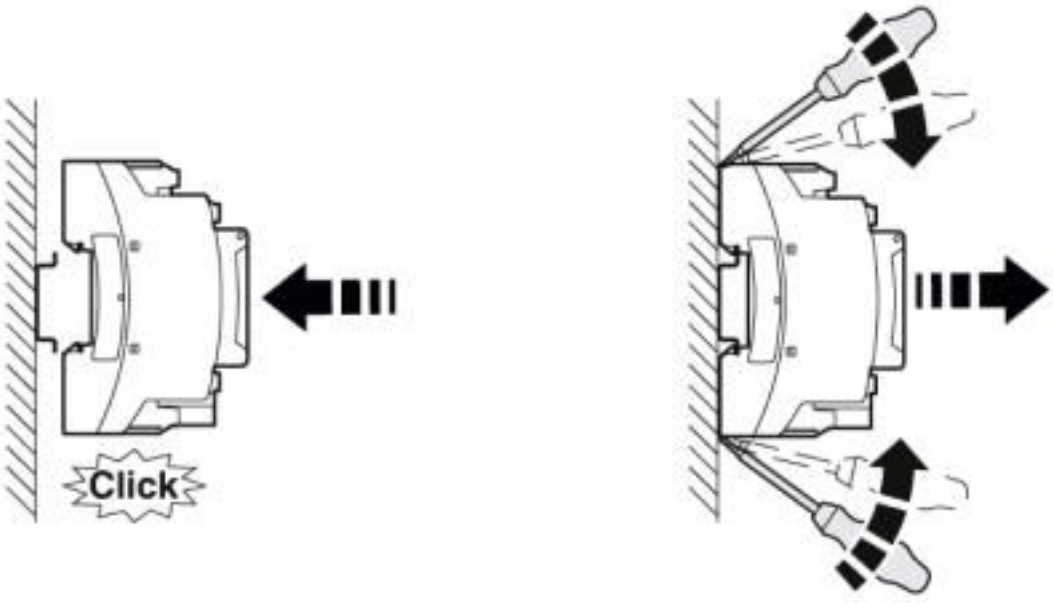

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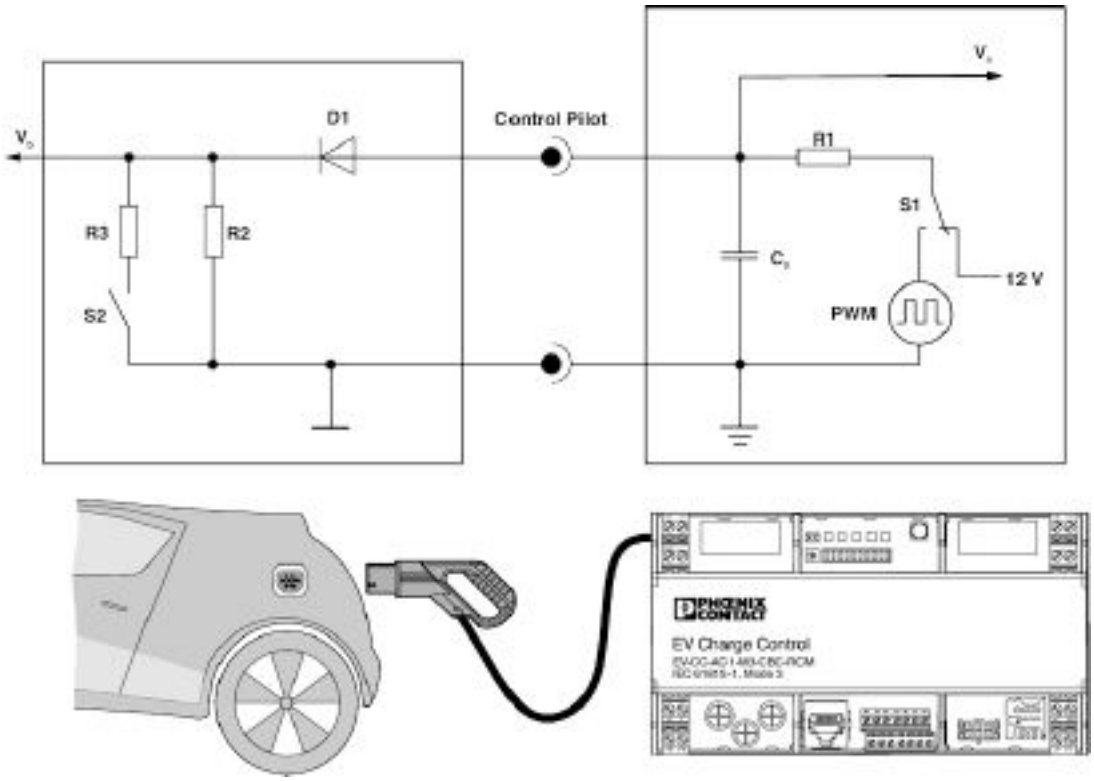

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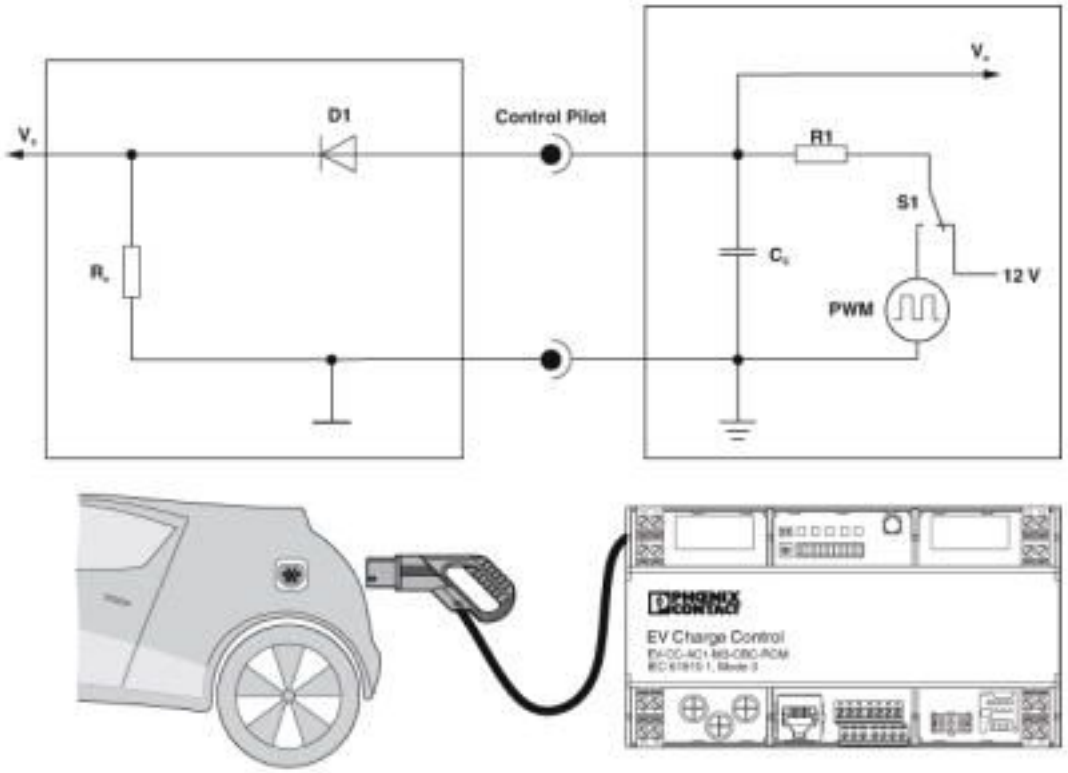

Classifications

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

Accessories

Accessories

Infrastructure socket outlet

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

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

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Accessories

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

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

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

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

PHOENIX CONTACT GmbH & Co. KG
Flachsmarktstr. 8
32825 Blomberg
Germany
Tel. +49 5235 300
Fax +49 5235 3 41200
http://www.phoenixcontact.com