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

1018701

https://www.phoenixcontact.com/us/products/1018701

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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.

Commercial data

Item number	1018701
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	EM01
Product key	XWBBCA
Catalog page	Page 60 (C-7-2019)
GTIN	4055626503691
Weight per piece (including packing)	538.3 g
Weight per piece (excluding packing)	538.3 g
Customs tariff number	85371098
Country of origin	DE

Technical data

Product properties

Product type	AC charging controller
Product family	CHARX control advanced plus
Application	AC charging controller for private and commercial applications (EU/CN)
Operating mode	Stand-Alone
	Client
Charging mode	Mode 3, Case B + C

Data management status

Article revision	01

Insulation characteristics

Overvoltage category	II

System properties

Charging controllers

Number of charging points	1

Electrical properties

Type of charging current	AC
Current consumption	< 3 W (No-load)
Power consumption	< 10 W
Locking release in the event of mains failure	Integrated release function of the locking actuator for disconnection of Infrastructure Plug and Infrastructure Socket Outlet

Measuring current transducer

Connection method	Connector
Diameter of measuring coil	15 mm

Measuring range: Residual current

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

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

Input data

Digital

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	0 V ... 3 V (Off)
Input voltage range U2	9 V ... 15 V (On)

Output data

Digital

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

Switching

Output name	Relay output $C_{1.2}$
Minimum switching capacity	4000 VA
Maximum switching voltage	250 V AC (External supply)
Max. switching current	16 A

Switching

Output name	Motor switching output
Maximum switching voltage	12 V (Internal supply)
Max. switching current	1 A (maximum)

Connection data

Conductor connection

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

Conductor connection

Connection method	Screw connection
Conductor cross section rigid	0.14 mm² ... 1.5 mm²
Conductor cross section flexible	0.2 mm² ... 1 mm²

Conductor cross section AWG	26 ... 16

Interfaces

Interface	Ethernet (1x)

RS-485

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

Ethernet

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

Signaling

Status display	5 x LEDs

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-25 °C ... 60 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Altitude	< 2000 m
Permissible humidity (operation)	30 % ... 95 % (non-condensing)

Approvals

Conformity/Approvals

Conformance	CE-compliant

EMC data

Low Voltage Directive	Conformance with Low Voltage Directive 2014/35/EC
Noise immunity	EN 61000-6-2
Immunity to the discharge of static electricity	EN 61000-4-2: 8 kV air, 4 kV contact discharge
Immunity to electromagnetic fields	EN 61 000-4-3, 80---1000 MHz, 10 V/m
Immunity to conducted high frequency	EN 61 000-4-6, 0.15...80 MHz, 10 V
Immunity to fast transients (Burst)	EN 61 000-4-4: 2 kV AC mains input, 1 kV data cable
Electromagnetic compatibility	Conformance with EMC Directive 2014/30/EU

Housing	DIN 43880
Noise emission	EN 61000-6-3

Standards and regulations

Standards

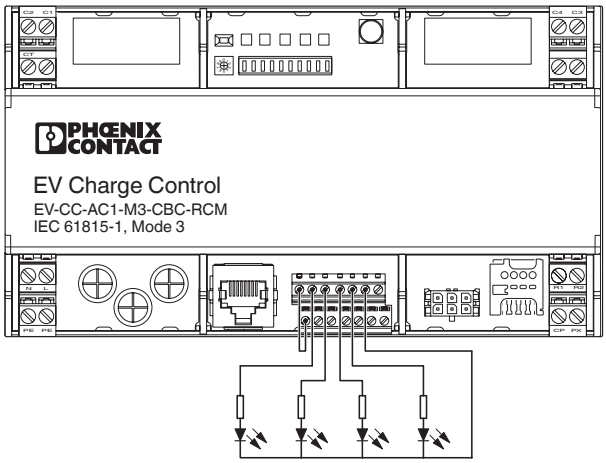
Standards/regulations	IEC 61851-1

Mounting

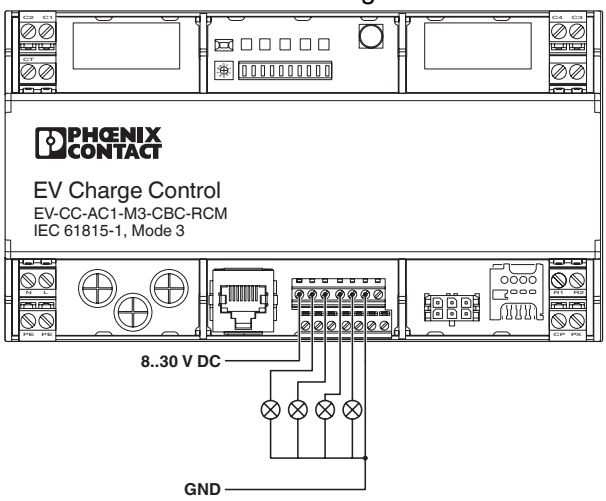
Mounting type	DIN rail mounting
Mounting position	any

Drawings

Connection diagram



Connection diagram



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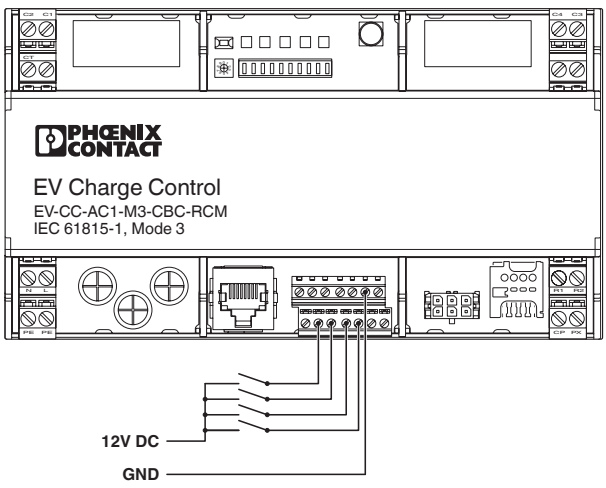

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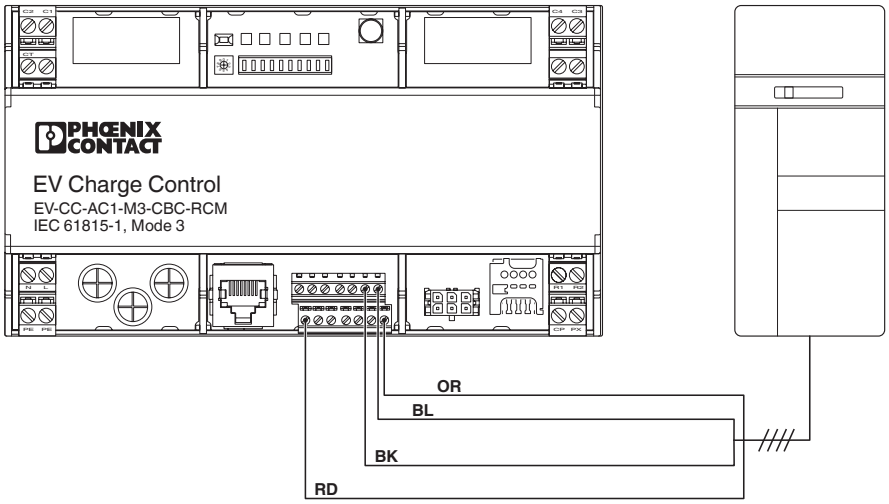

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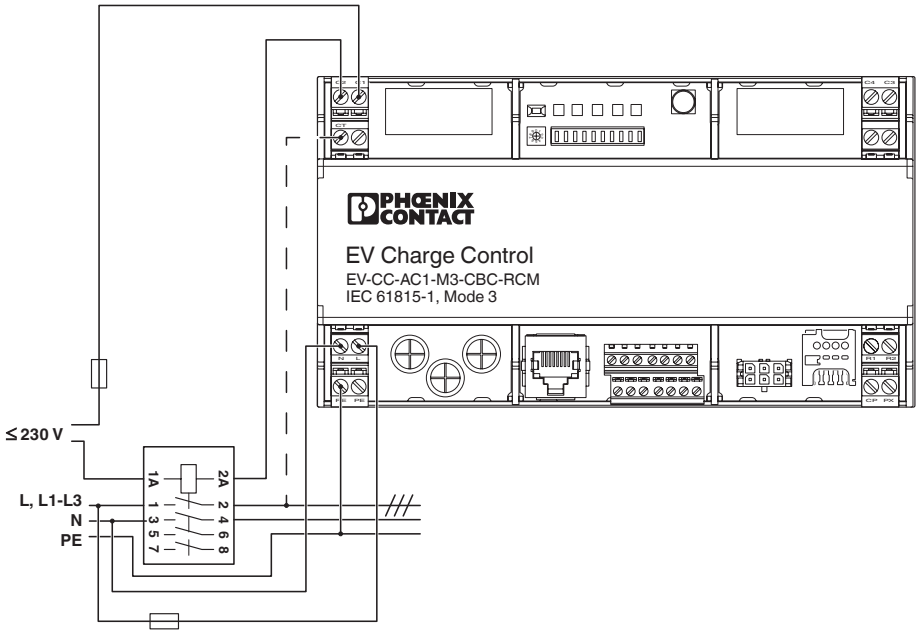
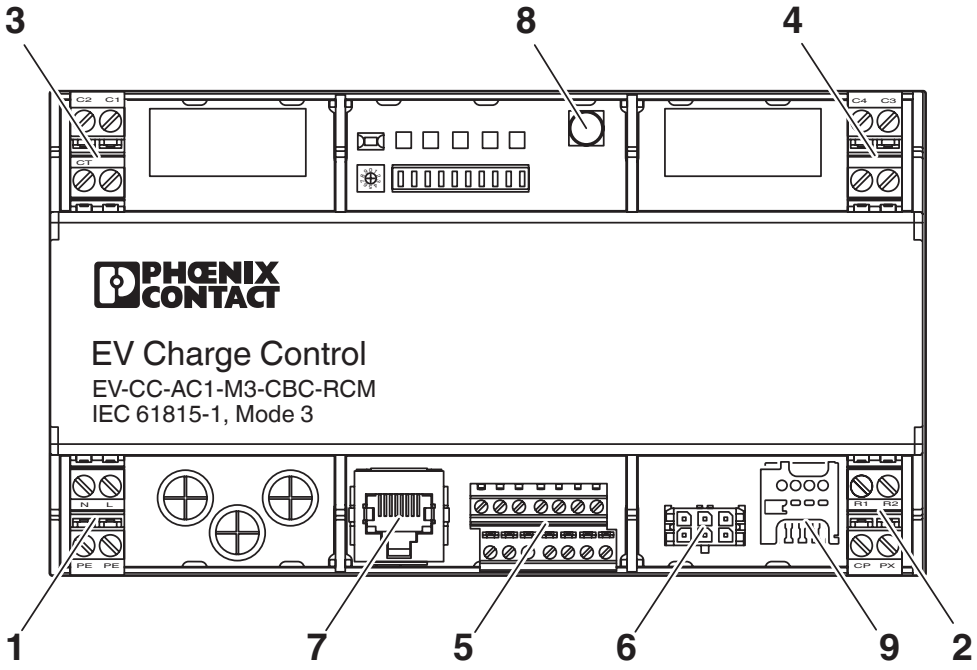


Schematic diagram



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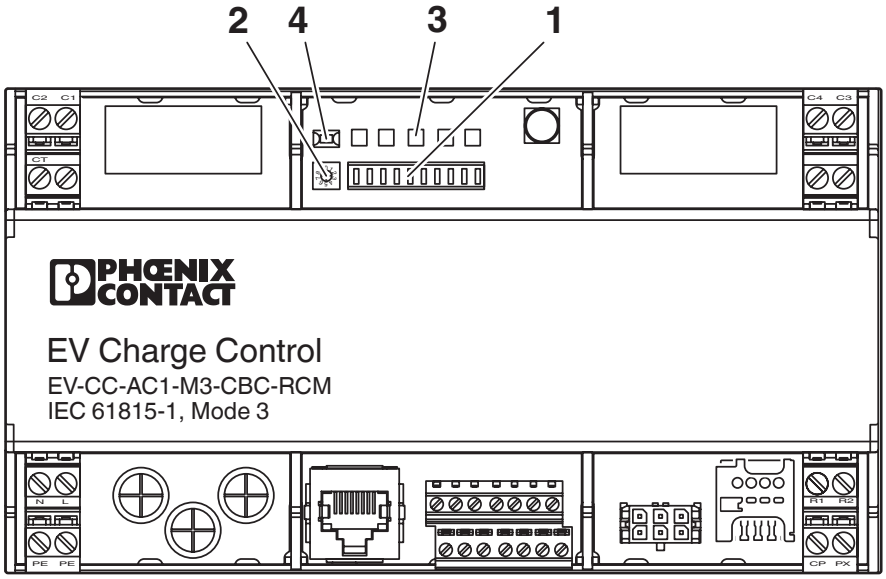

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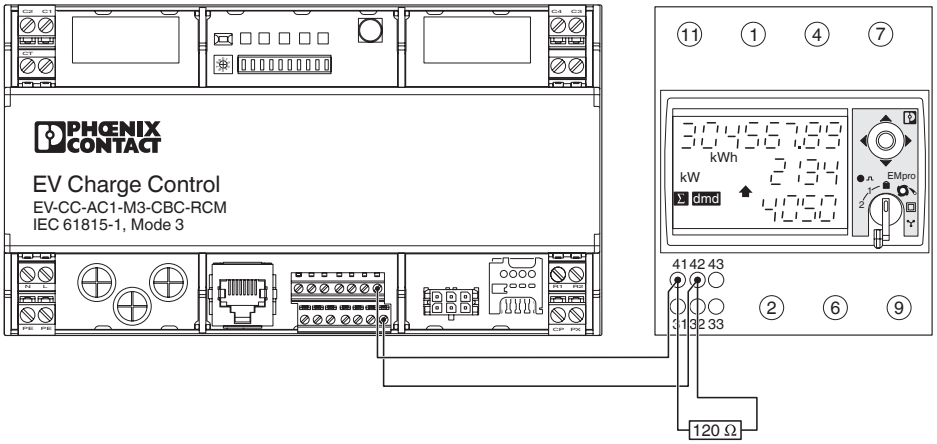

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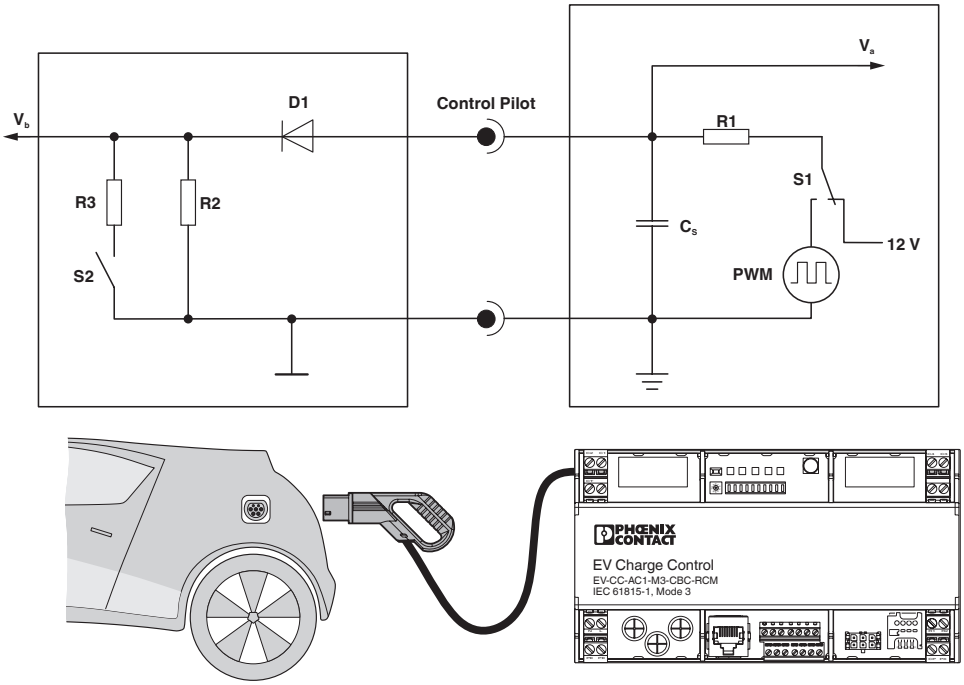

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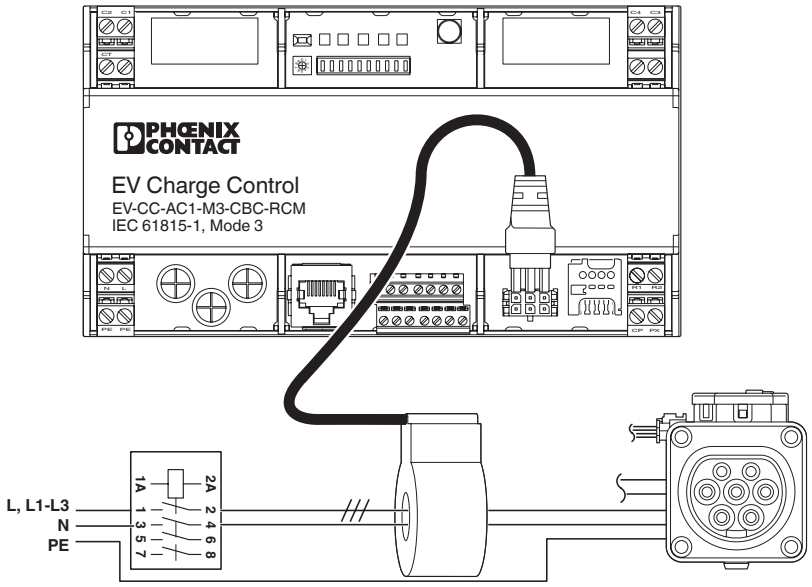

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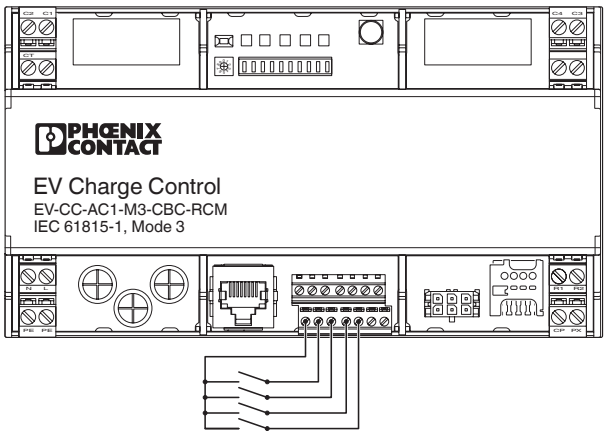
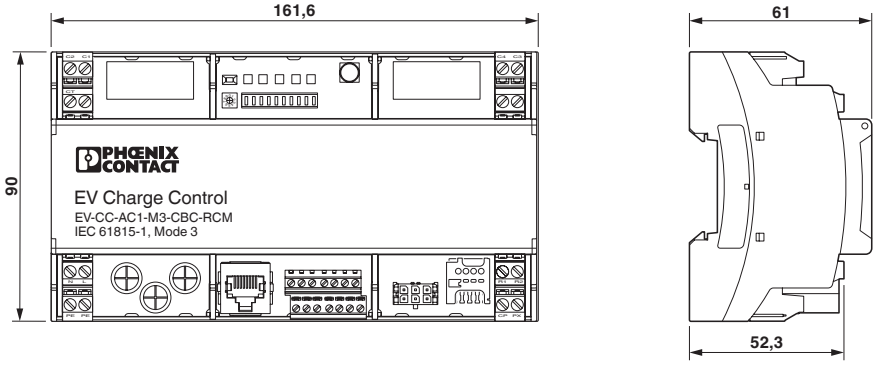


Dimensional drawing



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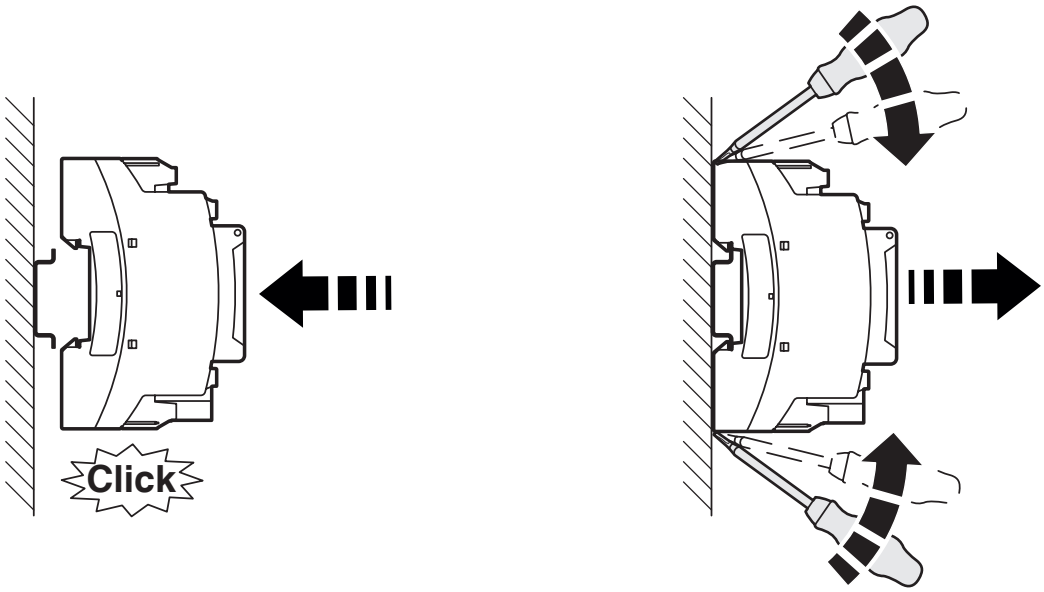

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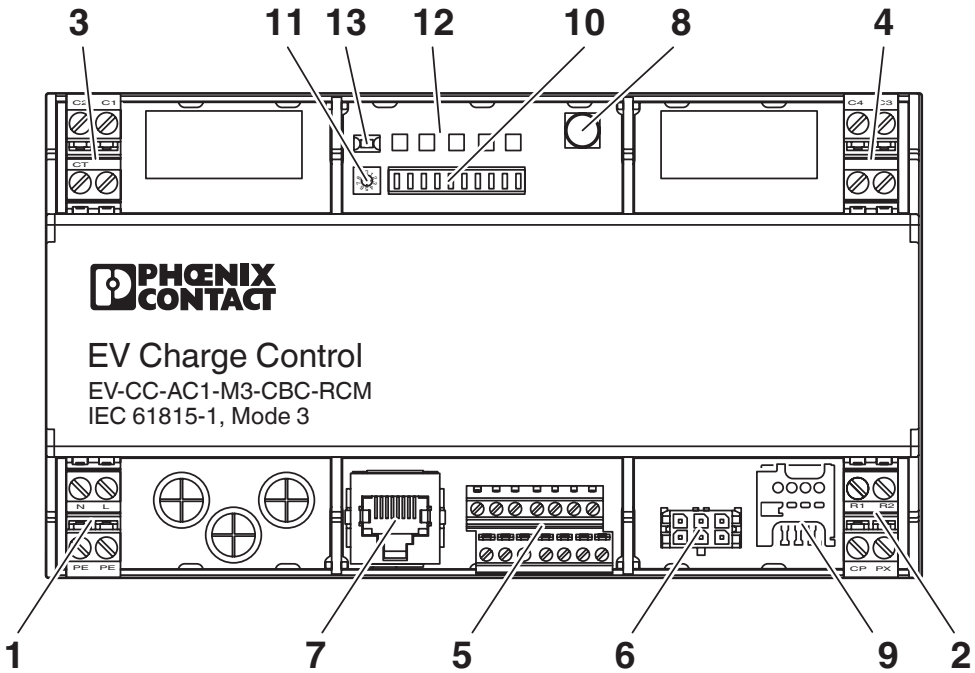

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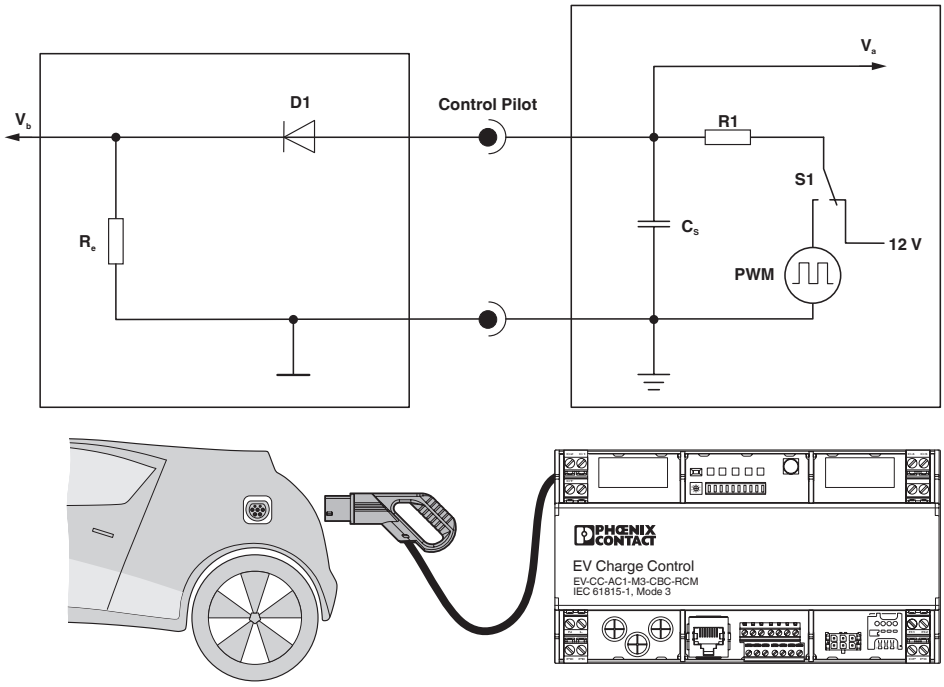

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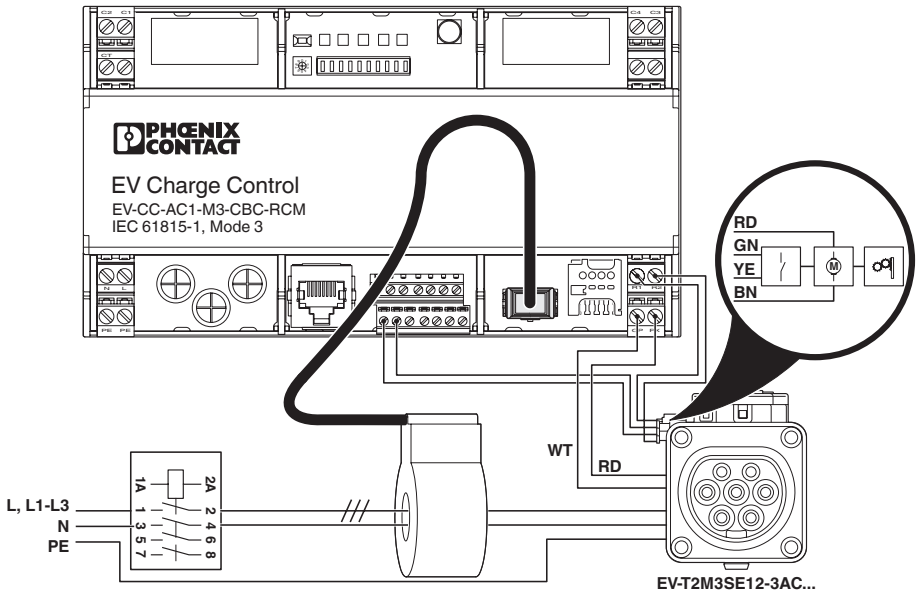

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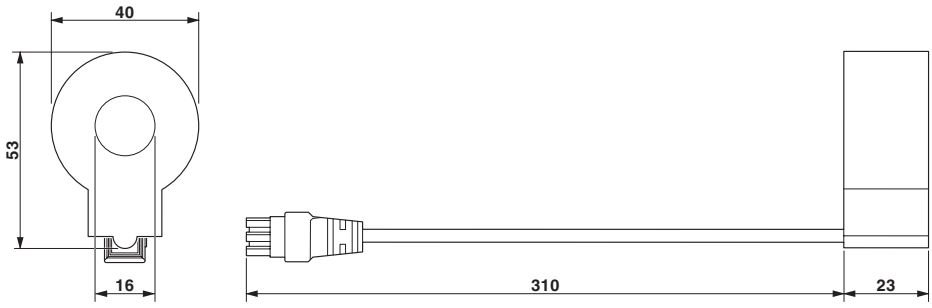

Classifications

ECLASS

ECLASS-11.0	27144703
ECLASS-12.0	27144703
ECLASS-13.0	27144703

ETIM

ETIM 9.0	EC002889

UNSPSC

UNSPSC 21.0	39121800

Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions

China RoHS

Environment friendly use period (EFUP)	EFUP-10
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.

EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%

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