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CHARX connect, AC charging cable with vehicle charging connector and open cable end, with protective cap, Housing color black-gray, for charging electric vehicles (EV) with alternating current (AC) via type 2 vehicle charging inlets, for installation at charging stations for electromobility (EVSE), Type 2, IEC 62196-2, 20 A / 250 V (AC), C-Line, "PHOENIX CONTACT" logo, cable: 4 m, black, spiraled

## **Product Description**

AC charging cable with Vehicle Connector and open cable end for charging electric vehicles (EV) with alternating current (AC) via type 2 Vehicle Inlets, for installation at charging stations for E-Mobility (EVSE)

#### Your advantages

- Consistent design of all Phoenix Contact Vehicle Connectors and Infrastructure Plugs
- Silver-plated surface of the power and signal contacts
- ☑ Certified in accordance with IATF 16949:2016 and ISO 9001:2015
- Material data available in the IMDS (International Material Data System of the automotive industry)
- Convenient handling, thanks to the ergonomic handle and additional, rubber grip components
- Tested in accordance with selected tests of automotive standards LV124, LV214, LV215-2
- ☑ Tested in accordance with EV Ready 37 requirements
- Consistent longitudinal water tightness prevents water ingress in the cable

# RoHS

## Key Commercial Data

Packing unit	1 pc
GTIN	4 055626 299419
GTIN	4055626299419
Weight per Piece (excluding packing)	1.155 g
Weight per piece (including packing)	1,590.700 g
Custom tariff number	85444290
Country of origin	Poland
Note	Made to Order (non-returnable)

## Technical data

### Product definition



# Technical data

## Product definition

Туре	AC charging cable
	with vehicle charging connector and open cable end
	with protective cap
	Housing color black-gray
Application	for charging electric vehicles (EV) with alternating current (AC) via type 2 vehicle charging inlets
	for installation at charging stations for electromobility (EVSE)
Affixed logo	"PHOENIX CONTACT" logo
Design	C-Line
Standards/regulations	IEC 62196-2
Charging standard	Туре 2
Charging mode	Mode 3, Case C

### Dimensions

Height	137 mm (Vehicle charging connector)
Width	70 mm (Vehicle charging connector)
Depth	215.9 mm (Vehicle charging connector)
Conductor length	4 m
Stripping length	70 mm ±5 mm

### Ambient conditions

Ambient temperature (operation)	-30 °C 50 °C
Ambient temperature (storage/transport)	-40 °C 80 °C
Max. altitude	5000 m (above sea level)
Degree of protection	IP44 (plugged in; when plugged in and ready to operate, the degree of protection is only ensued if both plug-in components are original products from Phoenix Contact or suitable standard-compliant products)
	IP54 (Protective cap)

### **Electrical properties**

Maximum charging power	5 kW
Number of phases	1
Number of power contacts	3 (L1, N, PE)
Rated current of power contacts	20 A
Rated voltage for power contacts	250 V AC
Number of signal contacts	2 (CP, PP)
Rated current for signal contacts	2 A
Rated voltage for signal contacts	30 V AC
Type of signal transmission	Pulse width modulation
Note on the connection method	Crimp connection, cannot be disconnected
Resistor coding	680 Ω (between PE and PP)

Insertion/withdrawal cycles	> 10000
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# Technical data

## Mechanical properties

Insertion force	< 100 N
Withdrawal force	< 100 N

### Design

Design line	C-Line
Housing color	black
Mating face color	black
Color handle area	gray
Color protective cap	black
Customer variations	On request

#### Material

Housing material	Plastic
Material handle area	Soft plastic
Material protective cap	Soft plastic
Material mating face	Plastic
Flammability rating	V0
Material surface of contacts	Ag

## Cable

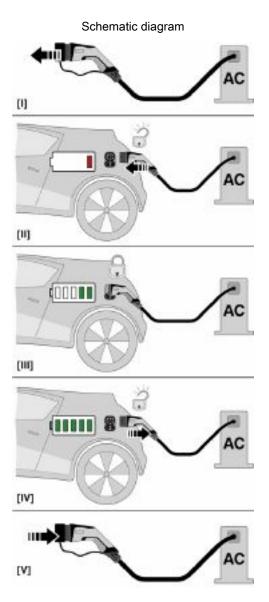
Cable structure	3 x 2.5 mm <sup>2</sup> + 1 x 0.5 mm <sup>2</sup>
Wiring standards/regulations	prEN 50620 / DIN EN 50620
Wiring class	Class 5
Wiring certifications	VDE
External cable diameter	10.2 mm ±0.3 mm
Type of conductor	spiraled
Cable resistance	$\leq$ 0.00798 $\Omega/m$ (based on a power core, at an ambient temperature of 20°C)
Outer sheath, material	TPE-U
External sheath, color	black
Minimum bending radius	153 mm (15 x diameter)
Coil diameter	45 mm ±10 %
Block length	0.68 m ±10 %
Effective length	max. 4 m ±5 %

## **Environmental Product Compliance**

REACh SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 10;
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

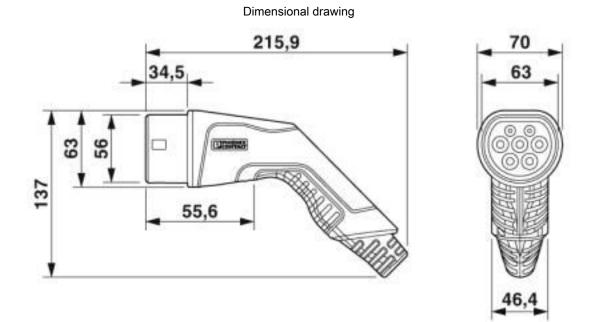
Drawings





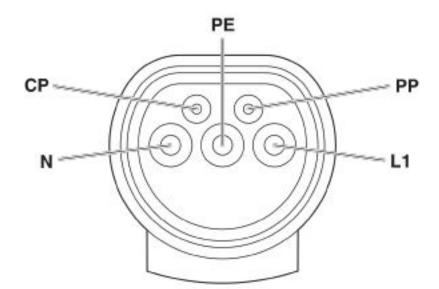
Operating instructions





Ensure that the vehicle connector is placed in an appropriate resting position that ensures a minimum protection rating of IP24 in accordance with IEC 61851-1 for the entire time between charging. Use the dimensions of the vehicle connector to create this type of resting position. Detailed specifications can also be found in the download area.

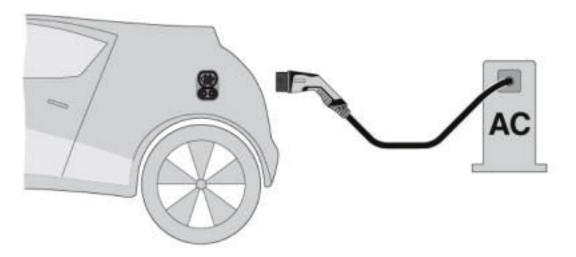
#### Schematic diagram



Pin assignment of the Vehicle Connector



Schematic diagram



#### Terminology definition

## Classifications

### eCl@ss

eCl@ss 10.0.1	27144705
eCl@ss 11.0	27144705
eCl@ss 4.0	27140800
eCl@ss 4.1	27140800
eCl@ss 5.0	27143400
eCl@ss 5.1	27143400
eCl@ss 6.0	27143400
eCl@ss 7.0	27449001
eCl@ss 8.0	27449001
eCl@ss 9.0	27144705

ETIM

ETIM 3.0	EC002061
ETIM 4.0	EC002061
ETIM 5.0	EC002839
ETIM 6.0	EC002897
ETIM 7.0	EC002897

## UNSPSC

UNSPSC 6.01	30211923
UNSPSC 7.0901	39121522
UNSPSC 11	39121522
UNSPSC 12.01	39121522
UNSPSC 13.2	39121522



## Classifications

## UNSPSC

UNSPSC 18.0	39121522
UNSPSC 19.0	39121522
UNSPSC 20.0	39121522
UNSPSC 21.0	39121522

## Approvals

### Approvals

### Approvals

IECEE CB Scheme / VDE Zeichengenehmigung

#### Ex Approvals

## Approval details

IECEE CB Scheme	<b>CB</b> scheme	http://www.iecee.org/	DE1-61066/M1
Nominal voltage UN		250 V	
Nominal current IN		20 A	

VDE Zeichengenehmigung	http://www2.vde.com/de/Institut/Online-Service/ VDE-gepruefteProdukte/Seiten/Online-Suche.aspx		40045387
Nominal voltage UN		250 V	
Nominal current IN		20 A	

## Accessories

Accessories

AC charging controller

AC charging controller - EV-CC-AC1-M3-CC-SER-HS - 1622459



The EV-CC-AC1-M3-CBC-SER-HS charging controller with housing for DIN rail mounting is used for charging electric vehicles at 3-phase AC networks according to IEC 61851-1, Mode 3. Optimized for charging stations with permanently mounted Vehicle Connector. All charging functions and comprehensive configuration settings are already integrated.



## Accessories

AC charging controller - EV-CC-AC1-M3-CC-SER-PCB - 1622460



The EV-CC-AC1-M3-CC-SER-PCB charging controller as a PCB for charging electric vehicles on a 3-phase AC power grid according to IEC 61851-1, Mode 3. Optimized for charging stations with permanently mounted Vehicle Connector. All charging functions and comprehensive configuration settings are already integrated.

#### AC charging controller - EV-CC-AC1-M3-CC-SER-PCB-XC-25X - 1627742



The EV-CC-AC1-M3-CC-SER-PCB charging controller as a PCB for charging electric vehicles on a 3-phase AC power grid according to IEC 61851-1, Mode 3. Optimized for charging stations with permanently mounted Vehicle Connector. All charging functions and comprehensive configuration settings are already integrated.

AC charging controller - EV-CC-AC1-M3-CC-SER-PCB-MSTB - 1627367



The EV-CC-AC1-M3-CC-SER-PCB-MSTB charging controller as a PCB for charging electric vehicles according to IEC 61851-1, Mode 3, optimized for charging stations with permanently mounted Vehicle Connector. Connection via PCB connector on header.

AC charging controller - EM-CP-PP-ETH - 2902802



EV charge control is used to charge electrical vehicles on the 3-phase AC mains power supply according to IEC 61851-1 Mode 3. All necessary control functions are integrated. Additional functions are available for various charging applications.

### Park position

Park position - EV-T2AC-PARK - 1624148



CHARX connect, Park position, Retainer for Vehicle Connector as parking position at charging stations (EVSE), Type 2, IEC 62196-2, Front mounting

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