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CHARX connect, DC charging cable with vehicle charging connector and open cable end, Housing color black, with connected CS contact, For charging electric vehicles (EV) with direct current (DC), for installation at charging stations for electromobility (EVSE), CCS type 1, Combined Charging System, SAE J1772, IEC 62196-3, 40 A / 1000 V (DC), C-Line, "PHOENIX CONTACT" logo, cable: 7 m, black, straight, NOTE: Cable management may be required

Product Description

DC charging cable with Vehicle Connector and open cable end for fast charging of electric vehicles (EV) with direct current (DC) via CCS type 1 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
- Developed and produced in accordance with the IATF 16949 automotive standard and ISO 9001
- Convenient handling, thanks to the ergonomic handle
- ☑ Integrated temperature sensors for monitoring the temperature at the power contacts



Key Commercial Data

Packing unit	1 pc
GTIN	4 063151 342708
GTIN	4063151342708
Custom tariff number	85444290
Country of origin	Germany

Technical data

Product definition

Туре	DC charging cable
	with vehicle charging connector and open cable end
	Housing color black



Technical data

Product definition

	with connected CS contact
Application	For charging electric vehicles (EV) with direct current (DC)
	for installation at charging stations for electromobility (EVSE)
Affixed logo	"PHOENIX CONTACT" logo
Design	C-Line
Standards/regulations	SAE J1772
	IEC 62196-3
Charging standard	CCS type 1
	Combined Charging System
Charging mode	Mode 4
	DC level 2
Normative cable length restrictions	NOTE: Cable management may be required.
	Cable management is required in certain regions if the cable length exceeds 5.0 m (Switzerland) or 7.5 m (USA) (IEC 61851-1).

Dimensions

Height	156.6 mm (Vehicle charging connector)
Width	68.5 mm (Vehicle charging connector)
Depth	239 mm (Vehicle charging connector)
Conductor length	7 m
Stripping length	140 mm ±10 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	IP54 (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)
	3R (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)

Electrical properties

Charging power (nominal operation)	40 kW
Number of power contacts	3 (PE, DC+, DC-)
Rated current of power contacts	40 A (up to 40 °C)
Rated voltage for power contacts	1000 V DC
Number of signal contacts	2 (CP, CS)
Rated current for signal contacts	2 A
Rated voltage for signal contacts	30 V AC



Technical data

Electrical properties

Type of signal transmission	Pulse width modulation with modulated Powerline communication according to ISO/IEC 15118 / DIN SPEC 70121
Resistor coding	480 Ω (Lever actuated)
	150 Ω (Lever not actuated)
Temperature monitoring	2x Pt 1000

Mechanical properties

Insertion/withdrawal cycles	> 10000
Insertion force	< 75 N
Withdrawal force	< 75 N

Design

Design line	Standard
Housing color	black
Mating face color	black
Color handle area	black
Label	8.9 mm x 28.9 mm (customer logo on request)

Material

Housing material	Plastic
Material handle area	Plastic
Material mating face	Plastic
Material surface of contacts	Ag

Cable

Cable structure	3 x 10 AWG + 2 x 3 x 18 AWG
Wiring standards/regulations	prEN 50620 / DIN EN 50620
Wiring class	Class 6
External cable diameter	19.8 mm ±0.5 mm
Type of conductor	straight
Cable resistance	$\leq 0.00351~\Omega/m$ (based on a power core, at an ambient temperature of $20^{\circ}C)$
Outer sheath, material	TPE
External sheath, color	black
Minimum bending radius	148.5 mm (7.5 x diameter)
Cable weight	max. 518 kg/km

Temperature sensors

Type of sensor	Pt 1000
Standards/regulations	DIN EN 60751
Recommended measured current	1 mA (1 V at 0°C)



Technical data

Temperature sensors

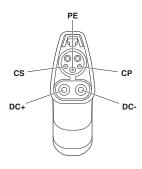
Tolerance at the sensor with the recommended measured current ±1K	
Temperature range	-50 °C 130 °C
Temperature coefficient (TCR)	3850 ppm/K
Long-term stability (max. R0-Drift)	0.06 % (After 1000 hours at 130°C)
Shutdown temperature	90 °C equivalent to a Pt 1000 value of 1346.5 Ω

Environmental Product Compliance

China RoHS	Environmentally Friendly Use Period = 10;	
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"	

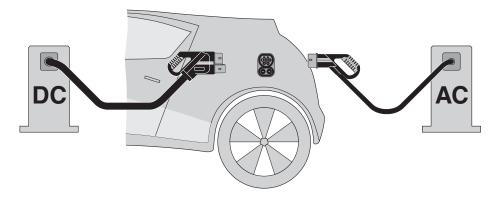
Drawings

Schematic diagram



Pin assignment of the Vehicle Connector

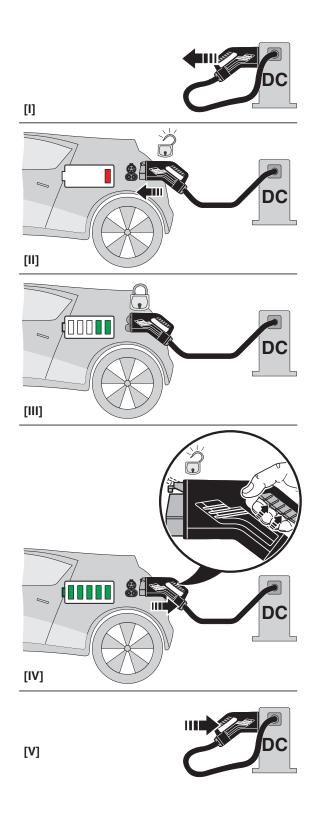
Schematic diagram



The Combined Charging System (CCS) principle - standard-compliant charging system for electric vehicles, which supports both conventional AC charging and fast DC charging. Both Vehicle Connectors fit into the CCS Vehicle Inlet.



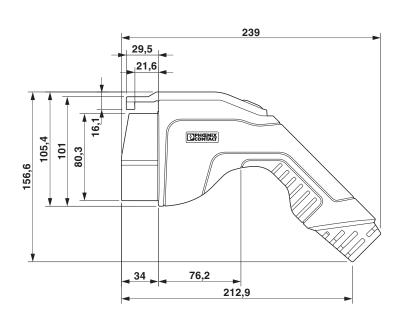
Schematic diagram

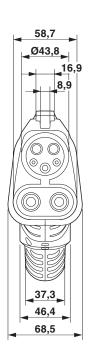


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Dimensional drawing





Dimensional drawing

Classifications

eCl@ss

eCl@ss 10.0.1	27144705
eCl@ss 11.0	27144705
eCl@ss 9.0	27144705

ETIM

ETIM 7.0	EC002897



Approvals

Approvals	
Approvals cULus Recognized	
Ex Approvals	

Approval details

cULus Recognized	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	E473195-20160308
Nominal voltage UN	1000 V	
Nominal current IN	40 A	
mm²/AWG/kcmil	1	

Accessories

Accessories

Charging connector holder

Charging connector holder - EV-T1CCS-PARK - 1624143



CHARX connect, Charging connector holder, for vehicle charging connectors on charging stations (EVSE), CCS type 1, SAE J1772, Front mounting

DC power module

DC power module - CHARX PS/3AC/920DC/87.5KW - 1162690



CHARX power, Fast charging module for setting up DC charging stations, Rack mounting, input: 3-phase, output: 200 V DC...920 V DC / 125 A. The corresponding system control cabinet CHARX PS-CAB/4x87.5KW (Order No. 1165442) is necessary for operating the DC power module



Accessories

DC power module - CHARX PS-M2/3AC/1000DC/30KW - 1232243



CHARX power, Fast charging module for setting up DC charging stations, 19" rack mounting, CAN bus, input: 3-phase, output: 150 V DC...1000 V DC / 0 A...100 A

DC power module - CHARX PS-M2/825DC/1000DC/30KW - 1296467



CHARX power, Fast charging module for setting up DC charging stations, 19" rack mounting, CAN bus, output: 150 V DC...1000 V DC / 0 A...100 A

Full screw connection

Cable gland - G-INS-M32-L68N-PNES-BK - 1424483



Cable gland, cable gland material: PA, external cable diameter 18 mm \dots 25 mm, shielding: no, connecting thread: M32 x 1.5, color: jet black RAL 9005

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