DC charging cable - EV-T2M4CC-DC250A-3,5M70ESBK11 - 1130319

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CHARX connect, DC charging cable with vehicle charging connector and open cable end, Housing color black-black, with replaceable mating face frame, with connected PP contact, For charging electric vehicles (EV) with direct current (DC), for installation at charging stations for electromobility (EVSE), CCS type 2, Combined Charging System, IEC 62196-3, 250 A / 1000 V (DC), D-Line 1.1, “PHOENIX CONTACT” logo, cable: 3.5 m, black, straight

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 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
- Developed and produced in accordance with the IATF 16949 automotive standard and ISO 9001
- Convenient handling, thanks to the ergonomic handle
- Maintenance-friendly replacement of the mating face frame
- Integrated temperature sensors for monitoring the temperature at the power contacts

RoHS

Key Commercial Data

Packing unit	1 pc
GTIN	4 063151 058531
GTIN	4063151058531
Custom tariff number	85444290
Country of origin	Germany

Technical data

Product definition

Type	DC charging cable
	with vehicle charging connector and open cable end

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Technical data

Product definition

	Housing color black-black
	with replaceable mating face frame
	with connected PP 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	D-Line 1.1
Standards/regulations	IEC 62196-3
Charging standard	CCS type 2
	Combined Charging System
Charging mode	Mode 4

Dimensions

Height	139 mm (Vehicle charging connector)
Width	75 mm (Vehicle charging connector)
Depth	267 mm (Vehicle charging connector)
Conductor length	3.5 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	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)

Electrical properties

Charging power (nominal operation)	250 kW
Maximum charging power (boost mode)	up to 500 kW (Depending on ambient conditions. For details, see the packing slip in the download area for this item.)
Number of power contacts	3 (PE, DC+, DC-)
Rated current of power contacts	250 A (up to 40 °C)
Power contacts, maximum current (boost mode)	up to 500 A (Depending on ambient conditions. For details, see the packing slip in the download area for this item.)
Rated voltage for power contacts	1000 V DC
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 with modulated Powerline communication according to ISO/IEC 15118 / DIN SPEC 70121

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Electrical properties

Note on the connection method	Crimp connection, cannot be disconnected
Resistor coding	1500 Ω (between PE and PP)
	PP signal contact connected to cable
Temperature monitoring	2x Pt 1000

Mechanical properties

Insertion/withdrawal cycles	> 10000
Insertion force	< 100 N
Withdrawal force	< 100 N

Design

Design line	Standard
Housing color	black
Mating face color	black
Color handle area	black
Label	14.1 mm x 44.8 mm (customer logo on request)

Material

Housing material	Plastic
Material handle area	Plastic
Material mating face	Plastic
Flammability rating	V0

Cable

Cable structure	2 x 70 mm² + 1 x 35 mm² + 3 x 2 x 0.75 mm²
Wiring standards/regulations	DIN EN 50620
Wiring class	Class 6
Wiring certifications	VDE-Reg. 8798
External cable diameter	32 mm ±0.4 mm
Type of conductor	straight
Cable resistance	≤ 0.000272 Ω/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	320 mm (10 x diameter)
Cable weight	max. 2300 kg/km

Temperature sensors

Type of sensor	Pt 1000
Standards/regulations	DIN EN 60751

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Technical data

Temperature sensors

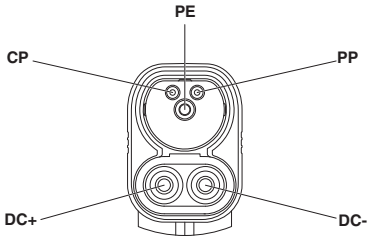
Recommended measured current	1 mA (1 V at 0°C)
Tolerance at the sensor with the recommended measured current	±1K
Temperature range	-50 °C ... 130 °C
Temperature coefficient (TCR)	3850 ppm/K
Long-term stability (max. R0-Drift)	0.06 % (After 1000 hours at 130°C)
Shutdown temperature	90 °C equivalent to a Pt 1000 value of 1346.5 Ω

Environmental Product Compliance

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”

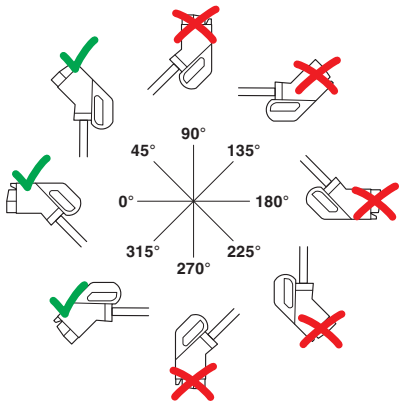
Drawings

Schematic diagram



Pin assignment of the Vehicle Connector

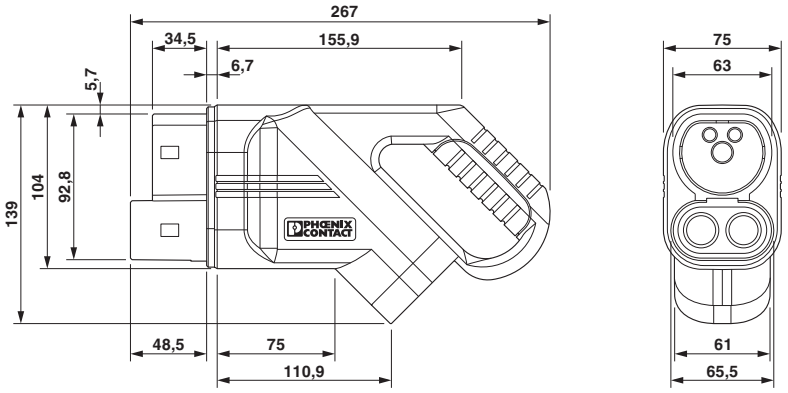
Schematic diagram



The resting position must be installed in the charging station such that the user cannot hang up the vehicle connector upside down (90° to 270°). However, positions rotated upward (45°) or downward (315°) are options for a resting position.

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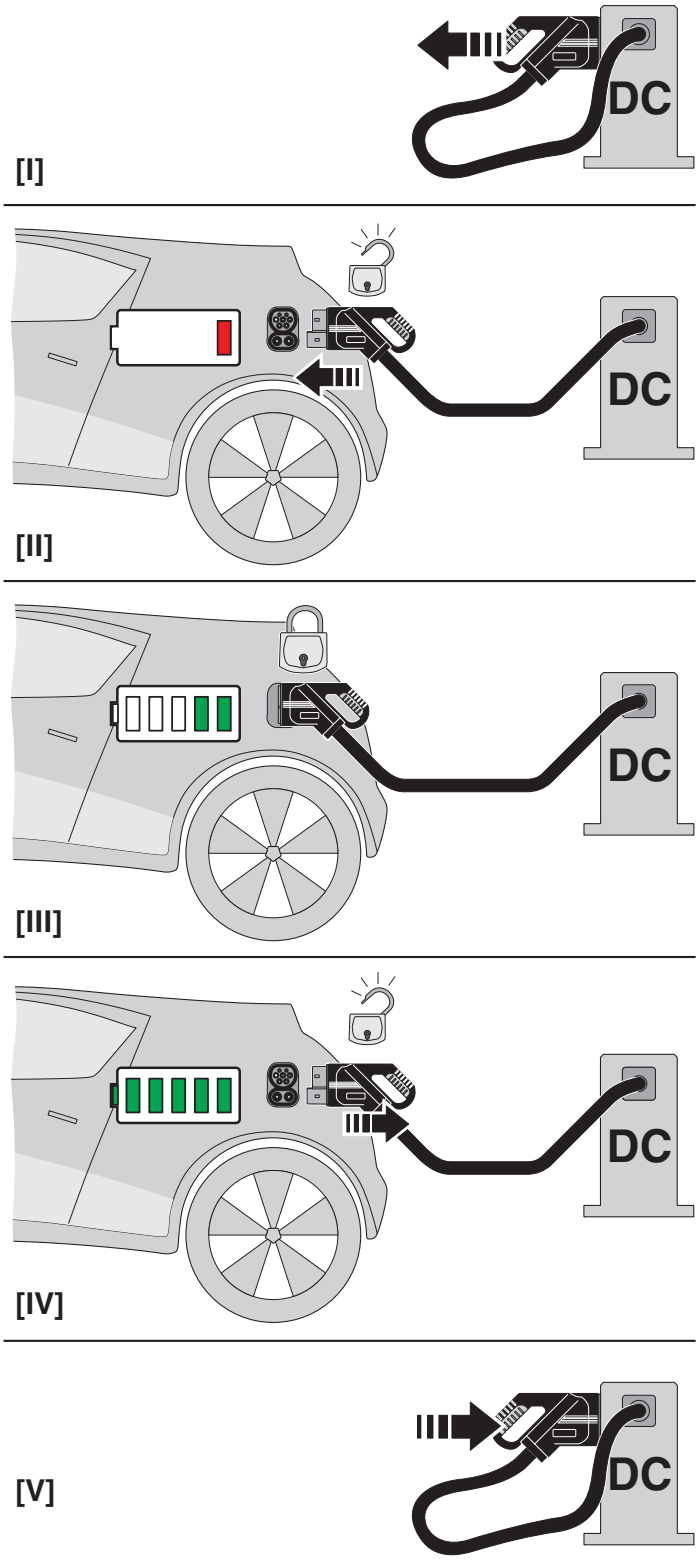
Dimensional drawing



Make sure that the vehicle charging connector is placed in an appropriate charging connector holder, which ensures a minimum protection rating of IP24 in accordance with IEC 61851-1, for the entire time between charging. To create this charging connector holder, use the dimensions of the vehicle charging connector. Detailed dimensions can also be found in the Download area.

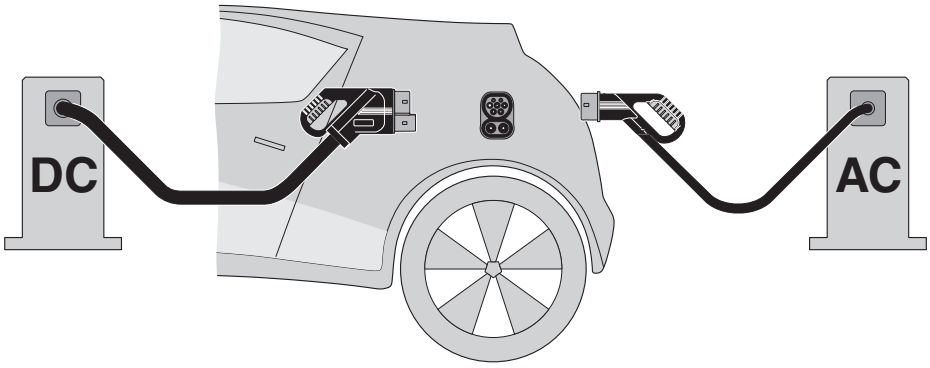
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Schematic diagram



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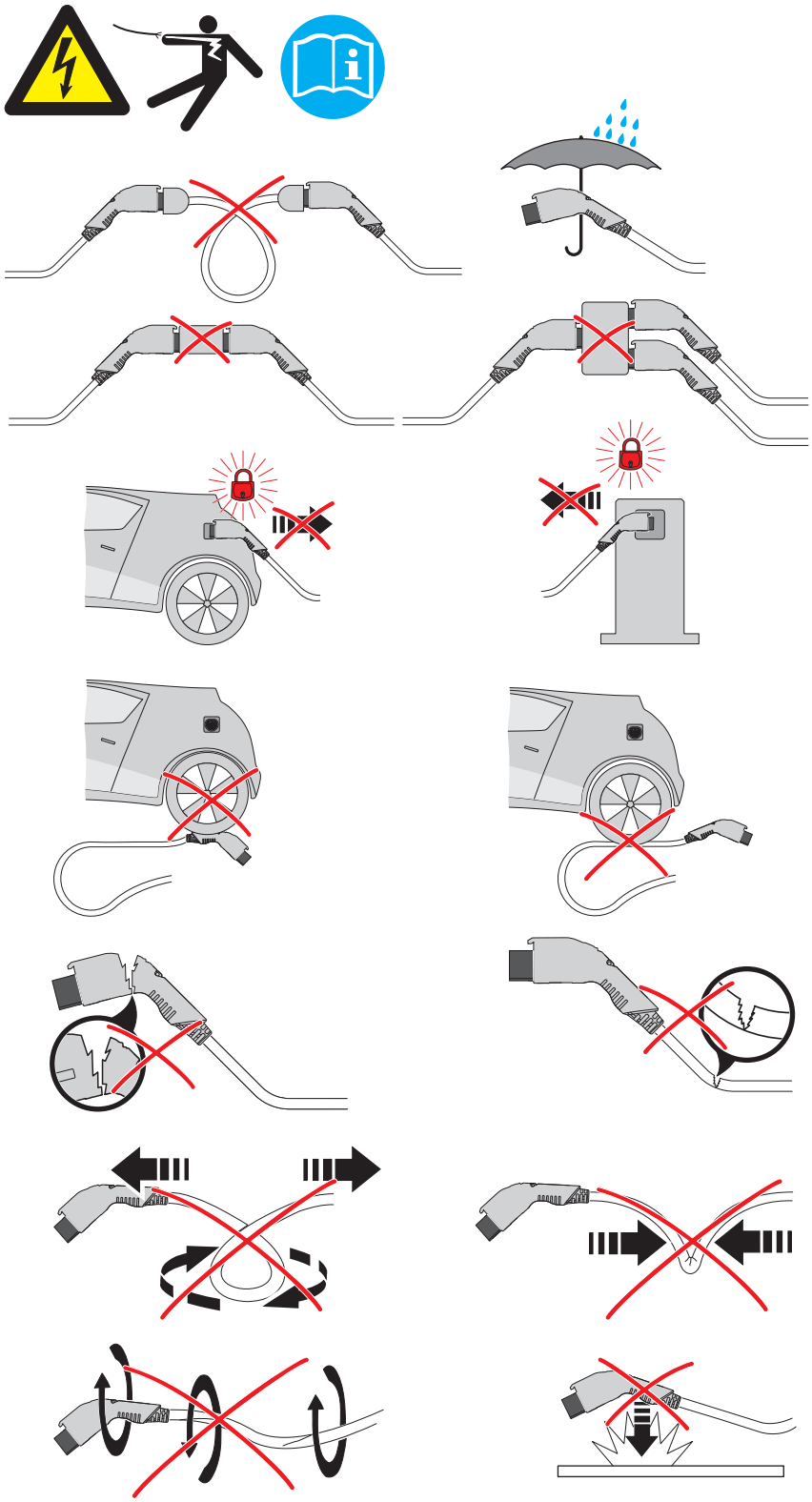
Schematic diagram



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.

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Schematic diagram



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Classifications

eCl@ss

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

ETIM

ETIM 7.0	EC002897

UNSPSC

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

Accessories

Accessories

Adhesive label

Label - EV-LABEL-K - 1309761



CHARX connect, Label, accordance to DIN EN 17186, for DC charging cables, for voltage range from 50 V to 500 V, Marking K for CCS type 2 vehicle charging connectors and type 2 vehicle charging inlets

Label - EV-LABEL-L - 1309765



CHARX connect, Label, accordance to DIN EN 17186, for DC charging cables, for voltage range from 200 V to 920 V, Marking L for CCS type 2 vehicle charging connectors and type 2 vehicle charging inlets

Charging connector holder

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Accessories

Charging connector holder - EV-T2CCS-PARK - 1624153



CHARX connect, Charging connector holder, for vehicle charging connectors on charging stations (EVSE), CCS type 2, IEC 62196-3, Front mounting, Item is not compatible with the HPC CCS type 2 charging cable from Phoenix Contact.

DC charging controller

DC charging controller - EV-PLCC-AC1-DC1 - 1624130



Programmable charging controller for DC and AC charging of electric vehicles in accordance with IEC 61851-1,-23, DIN SPEC 70121 with integrated 3G mobile network modem

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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

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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

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Accessories

Full screw connection

Cable gland - G-INS-M50-L68L-PNES-BK - 1411138



Cable gland, cable gland material: PA, external cable diameter 30 mm ... 36 mm, shielding: no, connecting thread: M50 x 1.5, color: jet black RAL 9005

Repair kit

Repair kit - EV-T2CCS-MF-M4X45-BIT - 1085796



CHARX connect, Repair kit, with replaceable mating face frame, with 5x M4X45 rounded head screws with Torx safety drive, with special bit for safety screwdriver, For replacement of the mating face frame of vehicle charging connectors, CCS type 2, Combined Charging System, IEC 62196-3, The vehicle connector housing does not have to be opened in order to replace the mating face frame.

Repair kit - EV-T2CCS-MF-M4X45 - 1081734



CHARX connect, Repair kit, with replaceable mating face frame, with 5x M4X45 rounded head screws with Torx safety drive, For replacement of the mating face frame of vehicle charging connectors, CCS type 2, Combined Charging System, IEC 62196-3, The vehicle connector housing does not have to be opened in order to replace the mating face frame.

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