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DC charging cable, with vehicle charging connector and open cable end, Housing color black-gray, 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, 60 A / 1000 V (DC), D-Line 1.0, "PHOENIX CONTACT" logo, cable: 15 m, black, straight, NOTE: The cable length exceeds the normative specification of 10 m.

### **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

- Silver-plated surface of the power and signal contacts
- ☑ Certified in accordance with IATF 16949:2016 and ISO 9001:2015
- Convenient handling, thanks to the ergonomic handle and additional, rubber grip components
- ☑ Integrated temperature sensors for monitoring the temperature at the power contacts



## **Key Commercial Data**

Packing unit	1 pc
GTIN	4 055626 380780
GTIN	4055626380780

## Technical data

### Product definition

Туре	DC charging cable
	with vehicle charging connector and open cable end
	Housing color black-gray
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 1.0
Standards/regulations	IEC 62196-3
Charging standard	CCS type 2



## Technical data

## Product definition

	Combined Charging System
Charging mode	Mode 4
Normative cable length restrictions	NOTE: The cable length exceeds the normative specification of 10 m.
	Interference-free V2G communication in accordance with ISO 15118 is not guaranteed for cable lengths over 10 m (ISO IEC 15118-3, A.11.3, Table A.11).
	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	139 mm (Vehicle charging connector)
Width	75 mm (Vehicle charging connector)
Depth	267 mm (Vehicle charging connector)
Conductor length	15 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)
	IP20 (when not plugged in, the required IP24 degree of protection must be ensured by other means, e.g., by a holder, see accessories)

# Electrical properties

T	T =
Maximum charging power	60 kW
Number of power contacts	3 (PE, DC+, DC-)
Rated current of power contacts	60 A
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
Note on the connection method	Crimp connection, cannot be disconnected
Resistor coding	1500 Ω (between PE and PP)
Temperature monitoring	2x Pt 1000

## Mechanical properties

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

## Design



## Technical data

## Design

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

## Material

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

### Cable

Cable structure	3 x 16 mm² + 3 x 2 x 0.75 mm²
Wiring standards/regulations	prEN 50620 / DIN EN 50620
Wiring class	Class 6
Wiring certifications	VDE-Reg. 8798
External cable diameter	18.4 mm ±0.3 mm
Type of conductor	straight
Outer sheath, material	HFFR
External sheath, color	black
Minimum bending radius	184 mm (10 x diameter)
Cable weight	max. 715 kg/km

## Temperature sensors

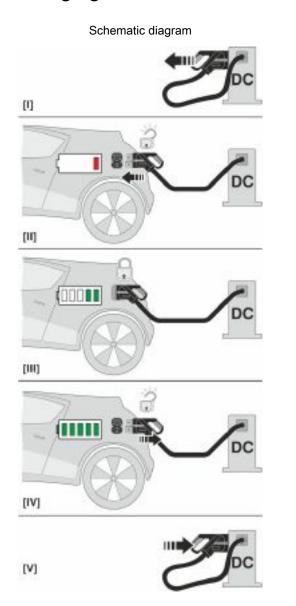
Type of sensor	Pt 1000
Standards/regulations	DIN EN 60751
Recommended measured current	1 mA (1 V at 0°C)
Tolerance at the sensor with the recommended measured current	±1K
Temperature range	-50 °C 130 °C
Temperature coefficient (TCR)	3850 ppm/K
Long-term stability (max. R0-Drift)	0.06 % (After 1000 hours at 130°C)
Shutdown temperature	90 °C equivalent to a Pt 1000 value of 1346.5 Ω

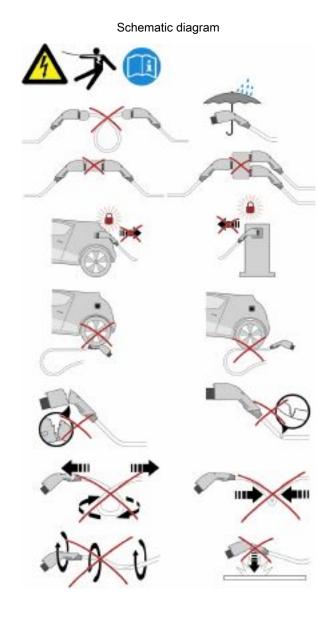
## **Environmental Product Compliance**

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

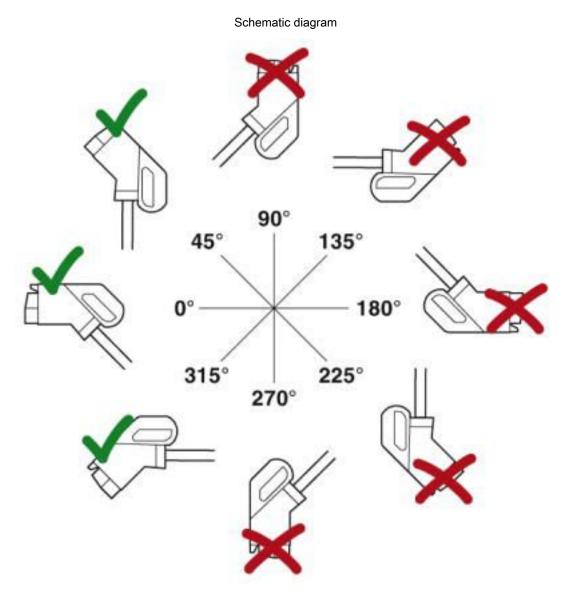






Operating instructions

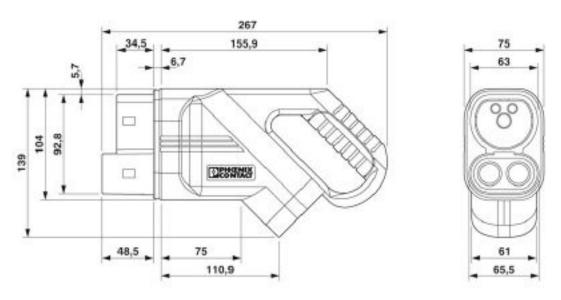




The resting position must be installed in the charging station such that the user cannot hang up the vehicle connector upside down ( $90^{\circ}$  to  $270^{\circ}$ ). However, positions rotated upward ( $45^{\circ}$ ) or downward ( $315^{\circ}$ ) are options for a resting position.

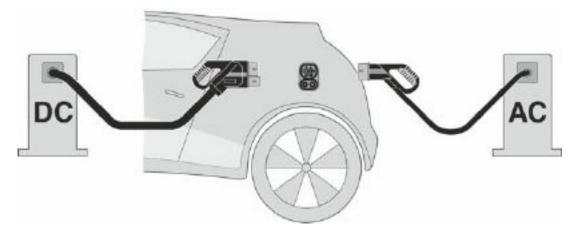


## Dimensional drawing



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.

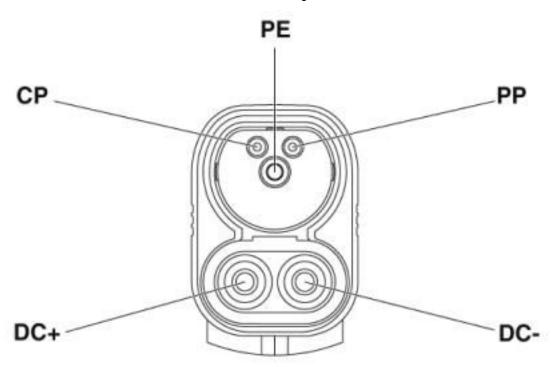
### Schematic diagram



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.







Pin assignment of the Vehicle Connector

## Classifications

## eCl@ss

eCl@ss 10.0.1	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



## Classifications

## **UNSPSC**

UNSPSC 7.0901	39121522
UNSPSC 11	39121522
UNSPSC 12.01	39121522
UNSPSC 13.2	39121522
UNSPSC 18.0	39121522
UNSPSC 19.0	39121522
UNSPSC 20.0	39121522
UNSPSC 21.0	39121522

### Accessories

### Accessories

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

## Park position

Park position - EV-T2CCS-PARK - 1624153



Park position, Retainer for Vehicle Connector as parking position at charging stations (EVSE), CCS type 2, IEC 62196-3, Front mounting

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