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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, 125 A / 1000 V (DC), D-Line 1.0, "PHOENIX CONTACT" logo, cable: 4 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

- Silver-plated surface of the power and signal contacts
- ☑ Certified in accordance with IATF 16949:2016 and ISO 9001:2015
- ☑ Integrated temperature sensors for monitoring the temperature at the power contacts



### **Key Commercial Data**

Packing unit	1 pc
GTIN	4 0 4 6 3 5 6 9 5 0 5 2 7
GTIN	4046356950527

### 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

#### **Dimensions**

Height	139 mm (Vehicle charging connector)
Width	75 mm (Vehicle charging connector)
Depth	267 mm (Vehicle charging connector)
Conductor length	4 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

Maximum charging power	125 kW
Number of power contacts	3 (PE, DC+, DC-)
Rated current of power contacts	125 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

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)



## Technical data

### Material

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

### Cable

Cable structure	2 x 50 mm² + 1 x 25 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	28.1 mm ±0.5 mm
Type of conductor	straight
Cable resistance	$\leq 0.00039~\Omega/m$ (based on a power core, at an ambient temperature of $20^{\circ}C)$
Outer sheath, material	TPE-U
External sheath, color	black
Minimum bending radius	281 mm (10 x diameter)
Cable weight	max. 1620 kg/km

## Temperature sensors

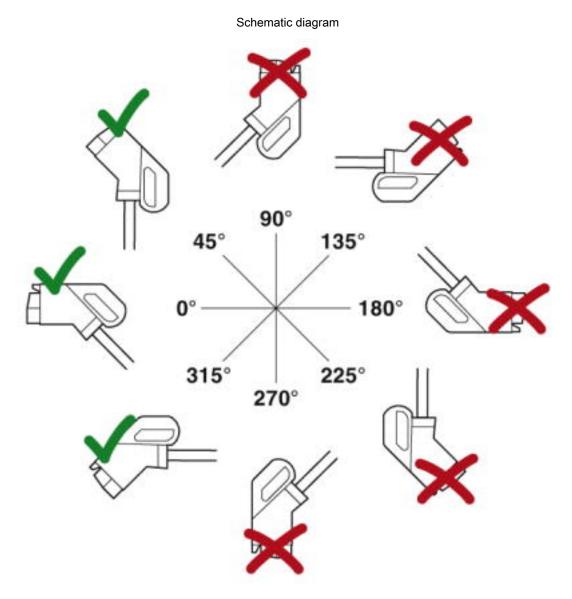
Type of sensor	Pt 1000
Standards/regulations	DIN EN 60751
Recommended measured current	1 mA (1 V at 0°C)
Tolerance at the sensor with the recommended measured current	±1K
Temperature range	-50 °C 130 °C
Temperature coefficient (TCR)	3850 ppm/K
Long-term stability (max. R0-Drift)	0.06 % (After 1000 hours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

## **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

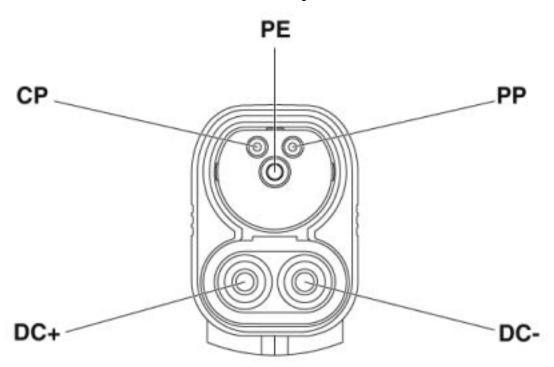




The resting position must be installed in the charging station such that the user cannot hang up the vehicle connector upside down ( $90^{\circ}$  to  $270^{\circ}$ ). However, positions rotated upward ( $45^{\circ}$ ) or downward ( $315^{\circ}$ ) are options for a resting position.



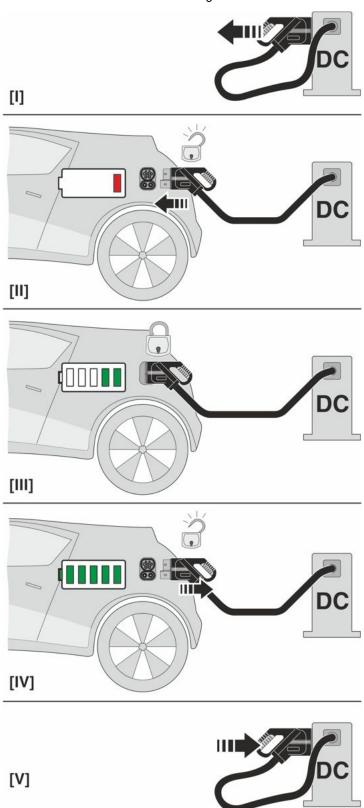




Pin assignment of the Vehicle Connector

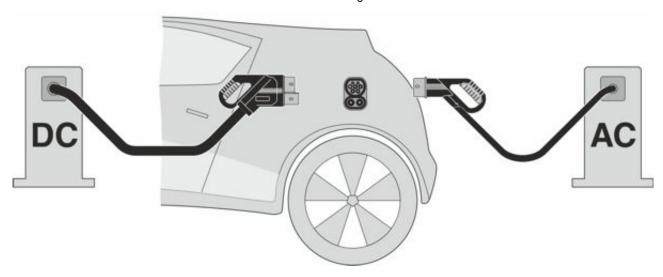


Schematic diagram



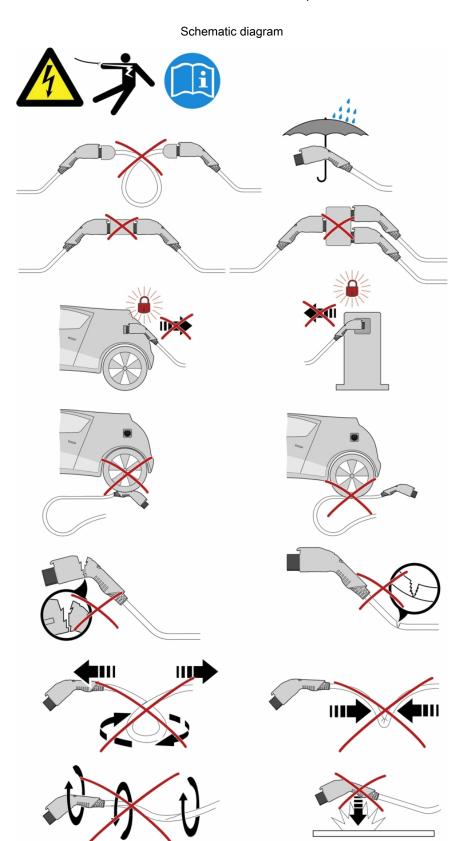






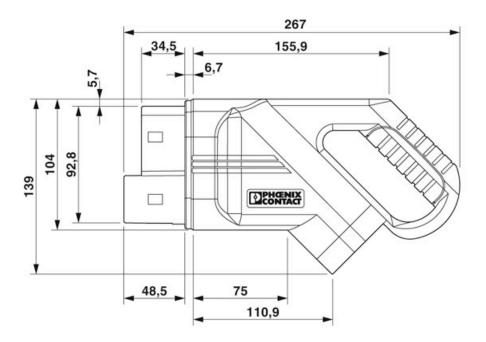
The Combined Charging System (CCS) principle - standard-compliant charging system for electric vehicles, which supports both conventional AC charging and fast DC charging. Both Vehicle Connectors fit into the CCS Vehicle Inlet.

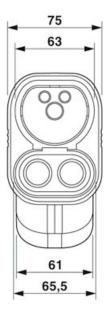






### Dimensional drawing





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.

## 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



## Classifications

### eCl@ss

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

## Approvals

Approvals

Approvals

**IECEE CB Scheme** 

Ex Approvals

### Approval details

IECEE CB Scheme	<b>CB</b> scheme	http://www.iecee.org/	DE1-59626
Nominal voltage UN		1000 V	
Nominal current IN		125 A	



### 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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