

DC charging cable - EV-T2M4CC-DC60A-4,5M16ESBK00 - 1618306

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DC charging cable with vehicle connector, open cable end, CCS type 2, Combined Charging System, IEC 62196-3, 60 A / 1000 V (DC), design line Standard, cable: 4.5 m, black, straight, mating face: black, handle area: gray

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
- ✓ 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

RoHS

Key Commercial Data

Packing unit	1 pc
GTIN	 4 046356 912198
GTIN	4046356912198
Weight per Piece (excluding packing)	3,965.000 g
Custom tariff number	85444290
Country of origin	Germany

Technical data

Product definition

Product type	DC charging cable with vehicle connector, open cable end
Standards/regulations	IEC 62196-3
Charging standard	CCS type 2
	Combined Charging System
Charging mode	Mode 4

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Technical data

Dimensions

Vehicle connector width	75.00 mm
Vehicle connector height	139.00 mm
Vehicle connector depth	267.00 mm
Conductor length	4.5 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)
	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	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

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

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Material

Material mating face	Plastic
Flammability rating	V0
Material surface of contacts	Ag

Cable

Cable structure	3 x 16 mm ² + 3 x 2 x 0.75 mm ²
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)

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

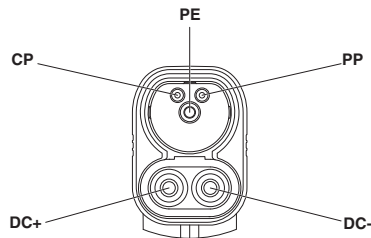
Environmental Product Compliance

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

Drawings

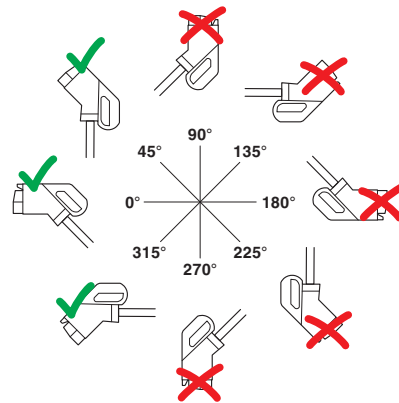
DC charging cable - EV-T2M4CC-DC60A-4,5M16ESBK00 - 1618306

Schematic diagram



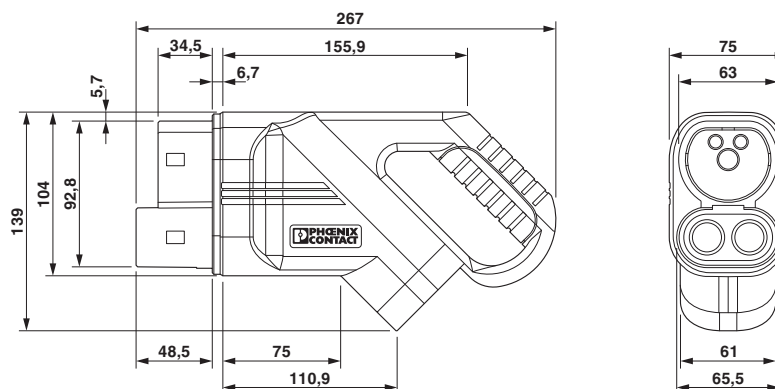
Pin assignment of the Vehicle Connector

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.

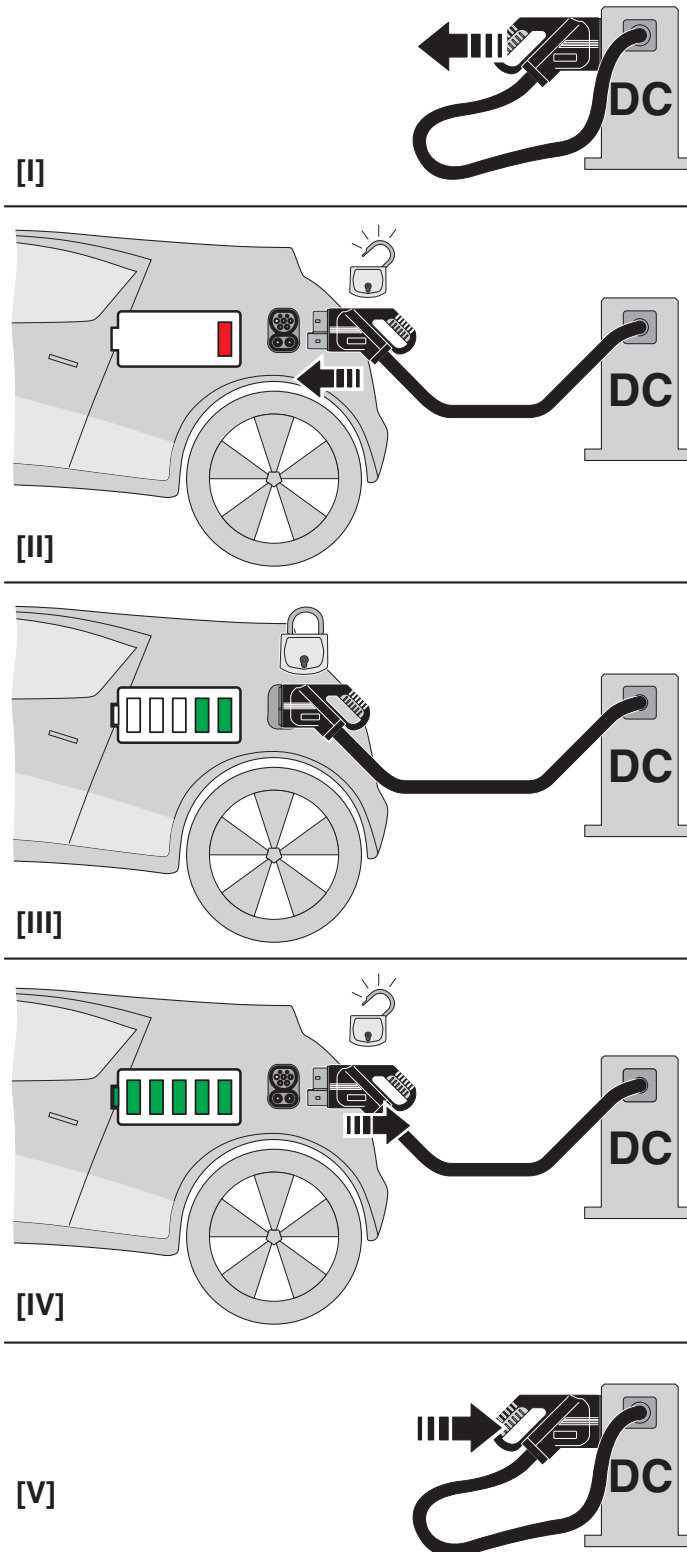
Dimensional drawing



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.

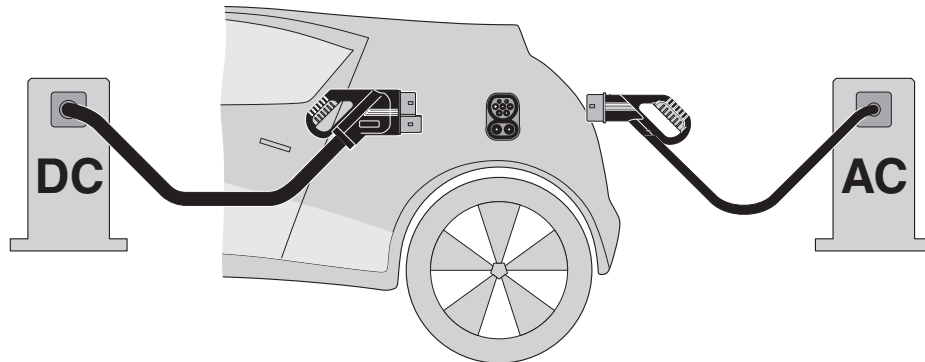
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Schematic diagram



DC charging cable - EV-T2M4CC-DC60A-4,5M16ESBK00 - 1618306

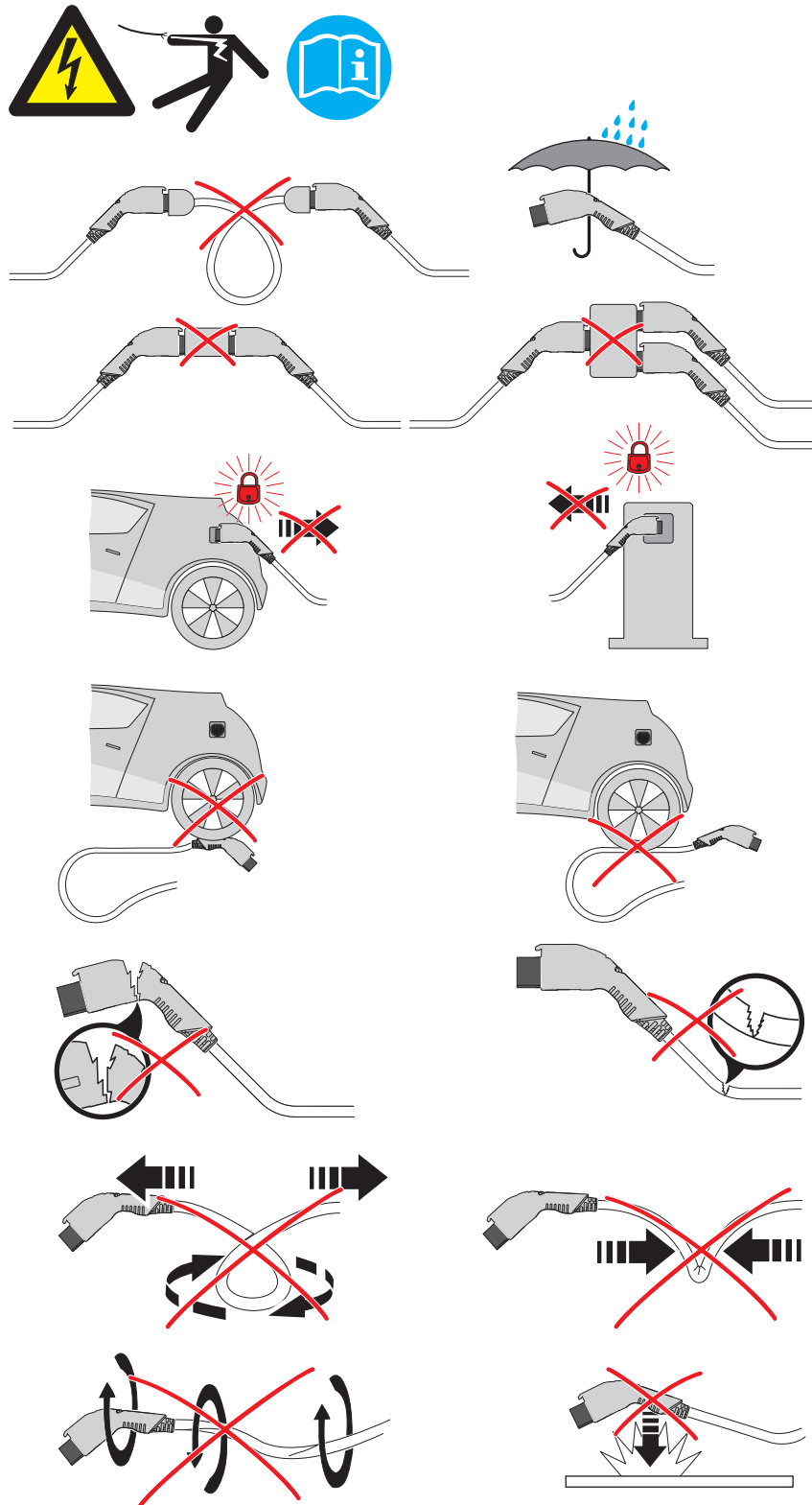
Schematic diagram



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 4.0	272607xx
eCl@ss 4.1	27260701
eCl@ss 5.0	27260701
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

UNSPSC

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

Approvals

Approvals

Approvals

IECEE CB Scheme / VDE Zeichengenehmigung

Ex Approvals

Approval details

IECEE CB Scheme	CB scheme	http://www.iecee.org/	DE1-59626
Nominal voltage UN	1000 V		
Nominal current IN	60 A		

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Approvals

VDE Zeichengenehmigung		http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx	40040872
Nominal voltage UN		1000 V	
Nominal current IN		60 A	

Accessories

Accessories

Park position

Park position - EV-T2CCS-PARK - 1624153



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