

## DC charging cable - EV-T2M4CC-DC60A-2,5M16ESBK00 - 1623043

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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: 2.5 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

### Key Commercial Data

|                                      |                                                                                                         |
|--------------------------------------|---------------------------------------------------------------------------------------------------------|
| Packing unit                         | 1 pc                                                                                                    |
| GTIN                                 | <br>4 055626 083360 |
| GTIN                                 | 4055626083360                                                                                           |
| Weight per Piece (excluding packing) | 22.220 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                                                   |

#### Dimensions

|                          |           |
|--------------------------|-----------|
| Vehicle connector width  | 75.00 mm  |
| Vehicle connector height | 139.00 mm |
| Vehicle connector depth  | 267.00 mm |

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## Technical data

### Dimensions

|                  |               |
|------------------|---------------|
| Conductor length | 2.5 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 |
| Material mating face         | Plastic      |
| Flammability rating          | V0           |
| Material surface of contacts | Ag           |

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### Technical data

#### Cable

|                              |                                                       |
|------------------------------|-------------------------------------------------------|
| Cable structure              | 3 x 16 mm <sup>2</sup> + 3 x 2 x 0.75 mm <sup>2</sup> |
| 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

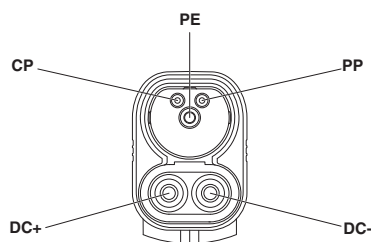
|                                                               |                                                 |
|---------------------------------------------------------------|-------------------------------------------------|
| Type of sensor                                                | Pt 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" |

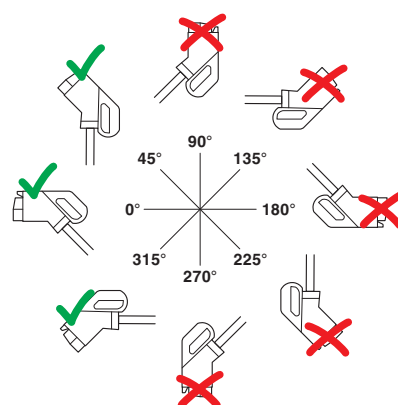
### Drawings

Schematic diagram



Pin assignment of the Vehicle Connector

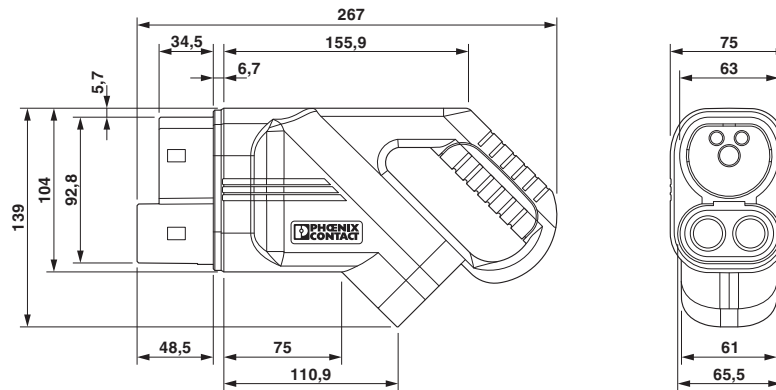
Schematic diagram



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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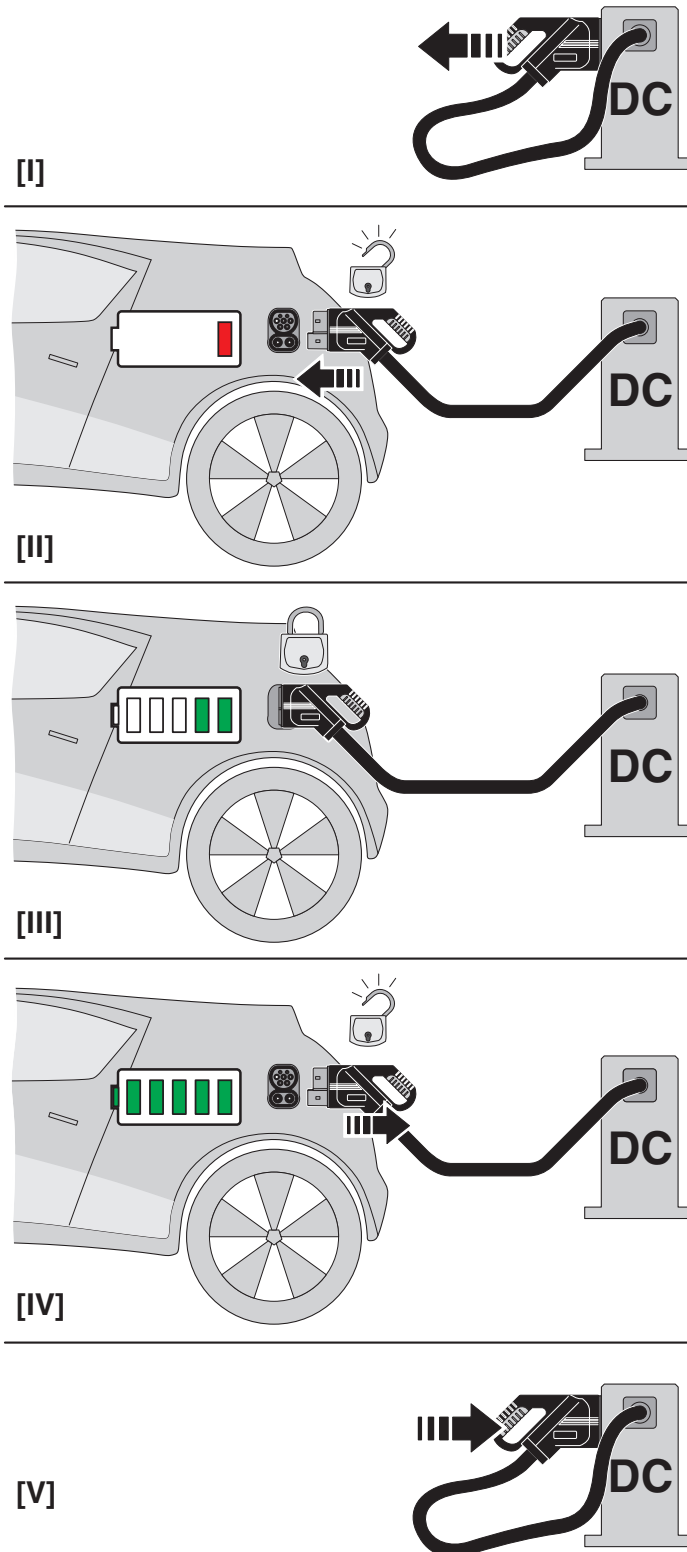
Dimensional drawing



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.

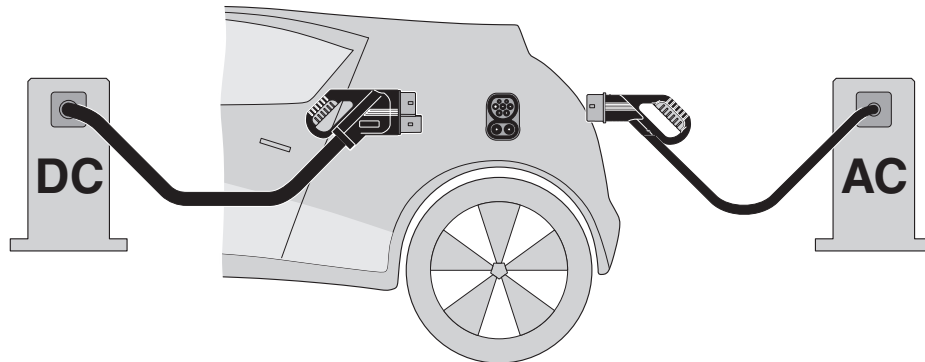
## DC charging cable - EV-T2M4CC-DC60A-2,5M16ESBK00 - 1623043

Schematic diagram



## DC charging cable - EV-T2M4CC-DC60A-2,5M16ESBK00 - 1623043

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

[illegible]

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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    | <b>CB</b><br>scheme | <a href="http://www.iecee.org/">http://www.iecee.org/</a> | DE1-59626 |
| Nominal voltage UN | 1000 V              |                                                           |           |
| Nominal current IN | 60 A                |                                                           |           |



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### Approvals

|                        |                                                                                   |                                                                                                                                                                                                           |          |
|------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| VDE Zeichengenehmigung |  | <a href="http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx">http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx</a> | 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