

1277166

https://www.phoenixcontact.com/us/products/1277166

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CHARX connect comfort, AC charging cable, with vehicle charging connector and open cable end, for charging electric vehicles (EV) with alternating current (AC) via type 1 vehicle charging inlets, with protective cap, with temperature sensors, Type 1, SAE J1772, 80 A / 250 V (AC), PHOENIX CONTACT logo, cable: 25 ft, black, straight, NOTE: Cable management may be required

# Product description

AC charging cable with vehicle charging connector and free cable end for charging electric vehicles (EV) with alternating current (AC) via type 1 vehicle charging inlets, for installation at charging stations for e-mobility (EVSE)

# Your advantages

- · Complete product range
- · Convenient handling due to the ergonomic, triple award-winning design
- Available with your logo on request for consistent branding of your charging station
- · Longitudinal water tightness reliably prevents water ingress
- Developed and produced in accordance with the IATF 16949 automotive standard and ISO 9001
- Tested in accordance with automotive standards LV124, LV214, and LV215-2
- Tested in accordance with EV Ready 37 requirements
- Laser-marked mating face in accordance with DIN EN 17186

### Commercial data

| Item number                          | 1277166       |
|--------------------------------------|---------------|
| Packing unit                         | 1 pc          |
| Minimum order quantity               | 1 pc          |
| Sales key                            | EM01          |
| Product key                          | XWBAAA        |
| GTIN                                 | 4063151471019 |
| Weight per piece (including packing) | 3,210 g       |
| Weight per piece (excluding packing) | 3,210 g       |
| Customs tariff number                | 85444290      |
| Country of origin                    | PL            |



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# Technical data

# Product properties

| Product type      | AC charging cable  |
|-------------------|--|
| Product family    | CHARX connect comfort  |
| Application       | for charging electric vehicles (EV) with alternating current (AC) via type 1 vehicle charging inlets |
|                   | for installation at charging stations for electromobility (EVSE)                                     |
| Туре              | AC charging cable  |
|                   | with vehicle charging connector and open cable end   |
| Design            | with protective cap  |
|                   | with temperature sensors   |
| Affixed logo      | PHOENIX CONTACT logo   |
| Charging mode     | AC level 2   |
| Charging standard | Type 1   |

# Electrical properties

| Note on the connection method | Crimp connection, cannot be disconnected |
|-------------------------------|--|
| Coding                        | 480 $Ω$ (Lever actuated)                 |
|                               | 150 $\Omega$ (Lever not actuated)        |
| Type of charging current      | AC single-phase                          |
| Charging power                | 20 kW                                    |
| Charging current              | 80 A                                     |

### Power contact

| Number        | 3 (L1, N, PE) |
|---------------|---------------|
| Rated voltage | 250 V AC      |
| Rated current | 80 A          |

### Signal contact

| Number        | 2 (CP, CS) |
|---------------|------------|
| Rated voltage | 30 V AC    |
| Rated current | 2 A        |

### Temperature sensors

| Switch-off temperature | 90 °C         |
|------------------------|---------------|
| Ambient temperature    | -40 °C 165 °C |

# Dimensions

### Vehicle charging connector

| Width  | 58 mm    |
|--------|----------|
| Height | 151.1 mm |
| Depth  | 236.1 mm |

# Material specifications



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| Color (Housing)                       | black (9005)       |
|---------------------------------------|--------------------|
| Color (Handle area)                   | black (9005)       |
| Color (Actuating element)             | silver grey (7001) |
| Color (Mating face)                   | black (9005)       |
| Color (Protective cap)                | black (9005)       |
| Color (Cable)                         | black (9005)       |
| Material (Vehicle charging connector) | Plastic            |
| Material (Cable outer sheath)         | TPE-U              |
| Material (Contact surface)            | Silver             |

# Cable/line

| Cable length                   | 25 ft  |
|--------------------------------|--|
| Wiring standards/regulations   | UL 62  |
| Cable weight                   | max. 636 kg/km   |
| Cable type                     | straight   |
| Cable structure                | 2 x 6 AWG + 1 x 8 AWG + 6 x 22 AWG   |
| External cable diameter        | 19.4 mm ±0.4 mm  |
| Outer sheath, material         | TPE  |
| Stripping length of the sheath | 70 mm ±5 mm  |
| Cable resistance               | $\leq$ 0.0014 $\Omega$ /m (based on a power core, at an ambient temperature of 20°C) |
| Bending radius                 | min. 194 mm (10x)  |

# Mechanical properties

### Mechanical data

| Insertion/withdrawal cycles | > 10000 |
|-----------------------------|---------|
| Insertion force             | < 75 N  |
| Withdrawal force            | < 75 N  |

# Environmental and real-life conditions

# Ambient conditions

| Degree of protection (Vehicle charging inlet) | 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) |
|---|--|
| Degree of protection (Protective cap)         | IP54   |
| Ambient temperature (operation)               | -30 °C 50 °C   |
| Ambient temperature (storage/transport)       | -40 °C 80 °C   |
| Altitude                                      | 5000 m (above sea level)   |

# Standards and regulations

# Connection in accordance with standard

| Normative cable length restrictions | NOTE: Cable management may be required. |
|-------------------------------------|---|
|-------------------------------------|---|



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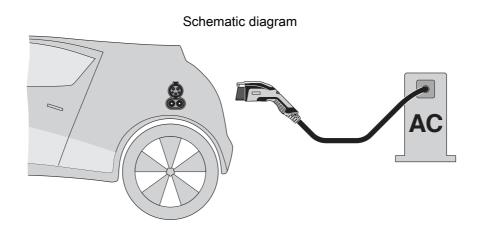
|                       | Cable management is required in the US if the cable length exceeds 7.5 m (IEC 61851-1). |
|-----------------------|---|
| Standards             |   |
| Standards/regulations | SAE J1772   |



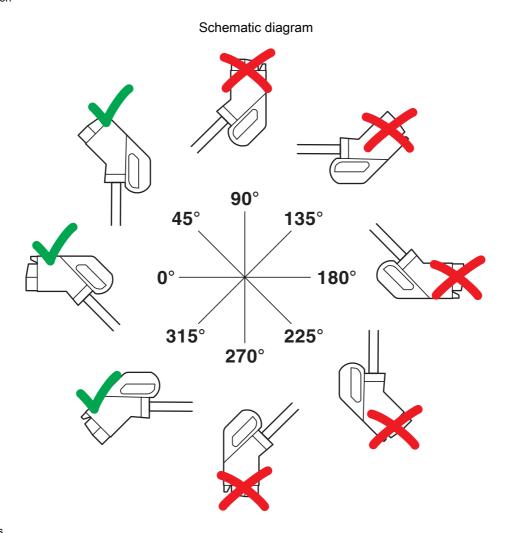
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# Drawings



Terminology definition



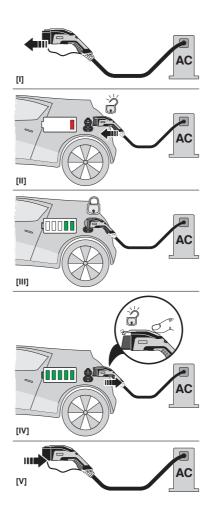
Installation positions



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# Schematic diagram



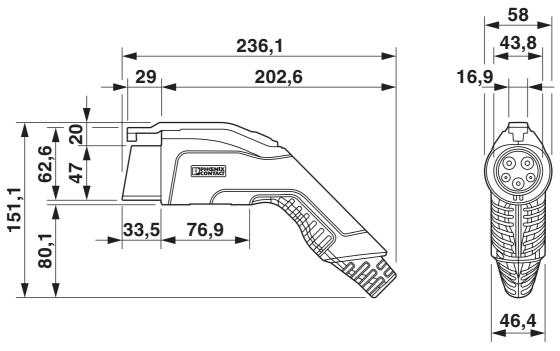
Operating instructions



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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.

# Connection diagram L2/N CS PE

Pin assignment of the Vehicle Connector



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# **Approvals**

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1277166

| c <b>932</b> us | cULus Recognized Approval ID: E473195-20160303 |                       |                                |                   |                               |
|-----------------|--|-----------------------|--------------------------------|-------------------|-------------------------------|
|                 |  | Nominal voltage $U_N$ | Nominal current I <sub>N</sub> | Cross section AWG | Cross section mm <sup>2</sup> |
|                 |  | 250 V                 | 80 A                           | -                 | -                             |



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# Classifications

# **ECLASS**

|      | ECLASS-11.0 | 27144705 |
|------|-------------|----------|
|      | ECLASS-12.0 | 27144705 |
|      | ECLASS-13.0 | 27144705 |
| ETIM |             |          |
|      | ETIM 8.0    | EC002897 |
| LIK  | SPSC        |          |

# **UNSPSC**

| UNSPSC 21.0 3912 | 1500 |
|------------------|------|
|------------------|------|



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# Environmental product compliance

| China RoHS | Environmentally Friendly Use Period = 10;  |
|------------|--|
|            | For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads" |



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### Accessories

# EV-T1AC-PARK - Charging connector holder

1624139

https://www.phoenixcontact.com/us/products/1624139



CHARX connect, Charging connector holder, Accessories, for vehicle charging connectors on charging stations (EVSE), Type 1, SAE J1772, Front mounting, housing: black

# G-INS-M32-M68N-PNES-BK - Cable gland

1411136

https://www.phoenixcontact.com/us/products/1411136



Cable gland, material for screw connection: PA, external cable diameter 15 mm... 21 mm, shielding: no, connecting thread: M32 x 1.5, color: jet black RAL 9005

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Phoenix Contact USA 586 Fulling Mill Road Middletown, PA 17057, United States (+717) 944-1300 info@phoenixcon.com