

CHARX T1HCI12-1AC48-2,0M1 - Vehicle charging inlet



1271960

<https://www.phoenixcontact.com/us/products/1271960>

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CHARX connect universal, Vehicle charging inlet, for charging electric vehicles with alternating current (AC), AC type 1, IEC 62196-2, SAE J1772, 48 A / 250 V (AC), Single wires, length: 2 m, locking actuator: 12 V, 4-pos., Front and rear mounting, M6, housing: black, A protective cap is supplied as standard for the AC contacts.

Product description

Vehicle charging inlet for charging with alternating current (AC), compatible with type 1 AC vehicle charging connectors (EVSE), for installation in electric vehicles (EV).

Your advantages

- Complete product range
- Uniform, space-saving dimensions for the installation space and the screw connection points of all Phoenix Contact vehicle charging inlets
- Developed and produced in accordance with the IATF 16949 automotive standard and ISO 9001
- Integrated interlock during charging
- Manual emergency release of the locking actuator
- Protected and sealed against dirt and water with a high degree of protection

Commercial data

| | |
|--------------------------------------|---------------|
| Item number | 1271960 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Sales key | EM01 |
| Product key | XWCAIA |
| GTIN | 4063151463229 |
| Weight per piece (including packing) | 1,405.2 g |
| Weight per piece (excluding packing) | 1,400.2 g |
| Customs tariff number | 85444290 |
| Country of origin | PL |

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Technical data

Notes

| | |
|---------|---|
| General | A protective cap is supplied as standard for the AC contacts. |
|---------|---|

Product properties

| | |
|-------------------|--|
| Product type | Vehicle charging inlet |
| Product family | CHARX connect universal |
| Application | for charging electric vehicles with alternating current (AC) for installation in electric vehicles (EV) |
| Charging standard | AC type 1 |
| Charging mode | Mode 2, 3 |

Electrical properties

| | |
|-------------------------------|---|
| Type of signal transmission | Pulse width modulation with modulated Powerline communication in accordance with ISO/IEC 15118 / DIN SPEC 70121 |
| Note on the connection method | Crimp connection, cannot be disconnected |
| Insulation resistance | > 200 M Ω |
| Coding | 2.7 k Ω (between PE and CS) |
| Temperature monitoring | AC contacts: PTC chain (DIN EN 60738-1) |
| Type of charging current | AC single-phase |
| Charging power | 12 kW |
| Charging current | 48 A |

Power contact

| | |
|---------------|---------------|
| Number | 3 (L1, N, PE) |
| Rated voltage | 250 V AC |
| Rated current | 48 A AC |

Signal contact

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

Temperature sensors (PTC chain)

| | |
|------------------------------|---|
| Sensor type | PTC chain |
| Standards/regulations | DIN EN 60738-1 |
| Attachment point | Sensor for the AC contacts |
| Measuring range_resistance | 790.00 Ω ... 1420.00 Ω |
| Resistance | max. 1200 Ω \pm 5 K |
| Recommended measured current | \leq 1 mA (U_{max} = 16 V DC) |
| Ambient temperature | -40 $^{\circ}$ C ... 130 $^{\circ}$ C (Operation) |

Locking actuator

| | |
|-------------------|------|
| Operating voltage | 12 V |
|-------------------|------|

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| | |
|----------------------------------|------------|
| Note number of positions | 4-pos. |
| Position of the locking actuator | top center |

Locking actuator

| | |
|--|---------------------|
| Operating voltage | 12 V |
| Note number of positions | 4-pos. |
| Position of the locking actuator | top center |
| Possible power supply range at the motor | 9 V ... 16 V |
| Maximum voltage for locking detection | 12 V |
| Typical motor current for locking | 0.25 A |
| Reverse current of the motor | max. 1.5 A |
| Max. dwell time with reverse current | 1 s |
| Recommended adaptation time | 600 ms |
| Pause time after entry or exit path | 3 s |
| Service life insertion cycles | > 10000 load cycles |
| Lock recognition | available |
| Mechanical emergency release | available |
| Ambient temperature (operation) | -40 °C ... 80 °C |

Dimensions

| | |
|--------|-------|
| Width | 73 mm |
| Height | 73 mm |
| Depth | 73 mm |

Material specifications

| | |
|----------------------------|--------------|
| Color (Housing) | black (9005) |
| Color (Mating face) | black (9005) |
| Material (Housing) | Plastic |
| Material (Contact surface) | Silver |

Cable/line

| | |
|--------------|--------------|
| Cable length | 2 m |
| Cable type | Single wires |

Single-core wires for AC

| | |
|-------------------------|-----------------------|
| Cable length | 2 m |
| Cable structure | 3 x 6 mm ² |
| Single wire, material | Silicone |
| Single wire, color | OG |
| External cable diameter | 13.80 mm ±0.3 mm |
| Cable resistance | ≤ 3.2 Ω/km |

Single-core wires for locking actuator

| | |
|-----------------------|-------------------------|
| Cable length | 1.5 m |
| Cable structure | 4 x 0.5 mm ² |
| Single wire, material | PVC |

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| | |
|-------------------------|----------------------------|
| Single wire, color | BU/RD, BU/GN, BU/YE, BU/BN |
| External cable diameter | 1.60 mm ±0.20 mm |
| Cable resistance | ≤ 37.1 Ω/m |

Single-core wires for temperature sensors

| | |
|-------------------------|-------------------------|
| Cable length | 1 m |
| Cable structure | 5 x 0,5 mm ² |
| Single wire, color | BN/GY BN/YE/GN |
| External cable diameter | 1.60 mm ±0.20 mm |
| Cable resistance | ≤ 37.1 Ω/m |

Single-core wires for communication

| | |
|-------------------------|-------------------------|
| Cable length | 1 m |
| Cable structure | 2 x 0.5 mm ² |
| Single wire, material | PVC |
| Single wire, color | BK WH |
| External cable diameter | 1.60 mm ±0.20 mm |
| Cable resistance | ≤ 37.1 Ω/m |

Mechanical properties

Mechanical data

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|-----------------------------|---------|
| 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) | IP55 (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) IP67 (Inner area of vehicle charging inlet) |
| Ambient temperature (operation) | -40 °C ... 60 °C |
| Ambient temperature (storage/transport) | -40 °C ... 85 °C |
| Altitude | 4000 m (above sea level) |

Standards and regulations

Standards

| | |
|-----------------------|--------------------------|
| Standards/regulations | IEC 62196-2 SAE J1772 |
|-----------------------|--------------------------|

Mounting

| | |
|---------------|--|
| Mounting type | Front and rear mounting (0 to 90 degree frontal inclination) |
|---------------|--|

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| | possible) |
| Mounting hole diameter | 6.70 mm (ø) |
| Fixing screws | M6 |
| Screws included in the scope of delivery | none |

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Classifications

ECLASS

| | |
|-------------|----------|
| ECLASS-11.0 | 27144706 |
| ECLASS-12.0 | 27144706 |
| ECLASS-13.0 | 27144706 |

ETIM

| | |
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| ETIM 9.0 | EC002898 |
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UNSPSC

| | |
|-------------|----------|
| UNSPSC 21.0 | 39121800 |
|-------------|----------|

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Environmental product compliance

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|------------|---|
| REACH SVHC | Lead 7439-92-1 |
| 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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