

Vehicle charging inlet - CHARX T2HBI12-DC250-2,0M2



1211222

<https://www.phoenixcontact.com/gb/products/1211222>

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CHARX connect, Vehicle charging inlet, for charging with direct current (DC), CCS type 2, IEC 62196-2, IEC 62196-3, 250 A / 1000 V (DC), length: 2 m (DC cables), locking actuator: 12 V, 4-pos., Front and rear mounting, M6, X-Line, housing: black, A protective cap is supplied as standard for the DC contacts.

Product Description

Vehicle charging inlet for charging with direct current (DC), compatible with type 2 CCS vehicle charging connectors (EVSE), for installation in electric vehicles for electromobility (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
- Safe against overheating with temperature measurement at every DC power contact
- 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 | 1211222 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Sales Key | XWCAID |
| Product Key | XWCAID |
| GTIN | 4063151284428 |
| Weight per Piece (including packing) | 6.541 kg |
| Weight per Piece (excluding packing) | 6.31 kg |
| Country of origin | PL |

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Technical Data

Notes

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

Product properties

| | |
|-------------------|--|
| Product type | Vehicle charging inlet |
| Application | for charging with direct current (DC) |
| | for installation in electric vehicles (EV) |
| | Combined Charging System |
| Locking type | Locking in the inserted state with a locking mechanism |
| Charging standard | CCS type 2 |
| Charging mode | Mode 4 |

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 | 4.7 k Ω (between PE and PP) |
| Temperature measurement | DC contacts: 2x PT1000 (DIN EN 60751) |
| Type of charging current | DC |
| Charging power | 250 kW |
| Charging current | 250 A |
| Type of charging current | DC Boost Mode |
| Charging power | up to 500 kW (Boost Mode, depending on the ambient conditions. For detailed information, see the packing slip in the download area for this item.) |
| Charging current | up to 500 A (Boost Mode, depending on the ambient conditions. For detailed information, see the packing slip in the download area for this item.) |

Power contact

| | |
|---------------|------------------|
| Number | 3 (PE, DC+, DC-) |
| Rated voltage | 1000 V DC |
| Rated current | 250 A DC |

Signal contact

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

(Pt 1000)

| | |
|-----------------------|--------------|
| Sensor type | Pt 1000 |
| Standards/regulations | DIN EN 60751 |

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Locking actuator

| | |
|----------------------------------|------------|
| Operating voltage | 12 V |
| Note number of positions | 4-pos. |
| Position of the locking actuator | right-side |

Dimensions

| | |
|---------------------|--------------------------------------|
| Dimensional drawing | |
| Width | 108 mm |
| Height | 140.25 mm |
| Depth | 133.5 mm |
| Bore dimensions | 117.65 mm x 90 mm, 117.65 mm x 83 mm |

Material specifications

| | |
|----------|---------|
| Material | Plastic |
| | Silver |

Connector

| | |
|-----------------------------|---------|
| Insertion/withdrawal cycles | > 10000 |
|-----------------------------|---------|

Cable / line

| | |
|-------------------------|----------------------------------|
| Cable length | 2 m (DC cables) |
| | 2 m (PE cable) |
| | 1 m (Locking actuator cables) |
| | 1 m (Temperature sensors cables) |
| | 1 m (Communications cables) |
| Cable weight | approx. 1150 kg/km |
| Conductor structure | 2 x 95 mm ² |
| External cable diameter | 20.6 mm ±0.3 mm |
| Outer sheath, material | Silicone |
| External sheath, color | orange |
| Conductor resistance | ≤ 0.196 Ω/km |
| Cable weight | approx. 251 kg/km |
| Conductor structure | 1 x 25 mm ² |
| External cable diameter | 8.6 mm ±0.1 mm |
| Outer sheath, material | Silicone |
| External sheath, color | green-yellow |
| Conductor resistance | ≤ 0.743 Ω/km |
| Cable weight | 7 kg/km |
| Conductor structure | 3 x 0.5 mm ² |

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| | |
|---------------------------------|-------------------|
| External cable diameter | 1.6 mm -0.2 mm |
| Outer sheath, material | PVC |
| Conductor resistance | ≤ 37.1 Ω/km |
| Ambient temperature (operation) | -40 °C ... 130 °C |

Communication cable

| | |
|----------------------------|---|
| Cable weight | 7 kg/km |
| Conductor structure | 0.5 mm ² + 0.5 mm ² |
| External cable diameter | 1.6 mm -0.2 mm |
| Outer sheath, material | PVC |
| Conductor resistance | ≤ 37.1 Ω/km |
| Single wire, cross section | 6 mm ² |

Mechanical properties

Mechanical data

| | |
|------------------|---------|
| Insertion force | < 100 N |
| Withdrawal force | < 100 N |

Environmental and real-life conditions

Ambient conditions

| | |
|----------------------|--|
| Degree of protection | 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) |
| Altitude | 4000 m (above sea level) |

Standards and regulations

Standards

| | |
|-----------------------|-------------|
| Standards/regulations | IEC 62196-2 |
| | IEC 62196-3 |

Mounting

| | |
|--|---|
| Mounting type | Front and rear mounting (0 to 90 degree frontal inclination possible) |
| Mounting hole diameter | 6.70 mm (ø) |
| Fixing screws | M6 |
| Screws included in the scope of delivery | none |

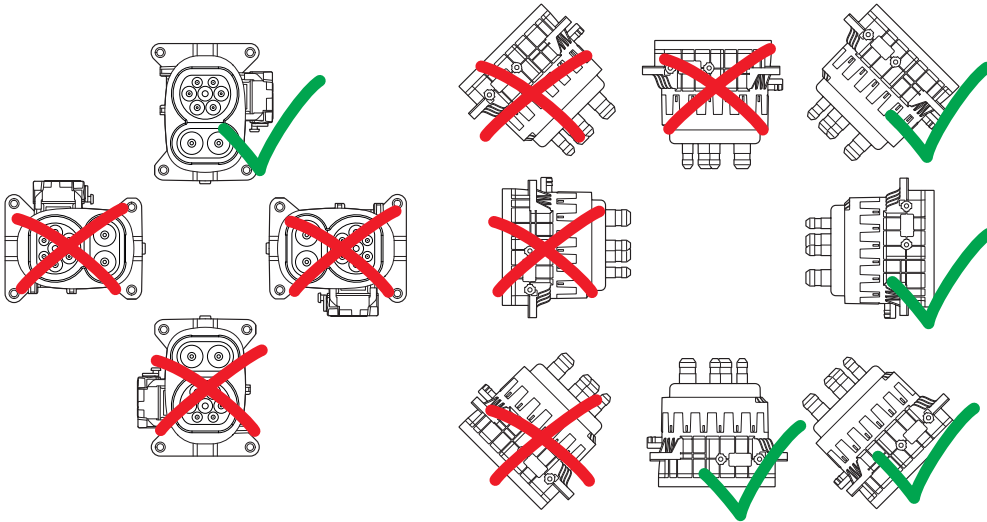
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Drawings

Connection diagram



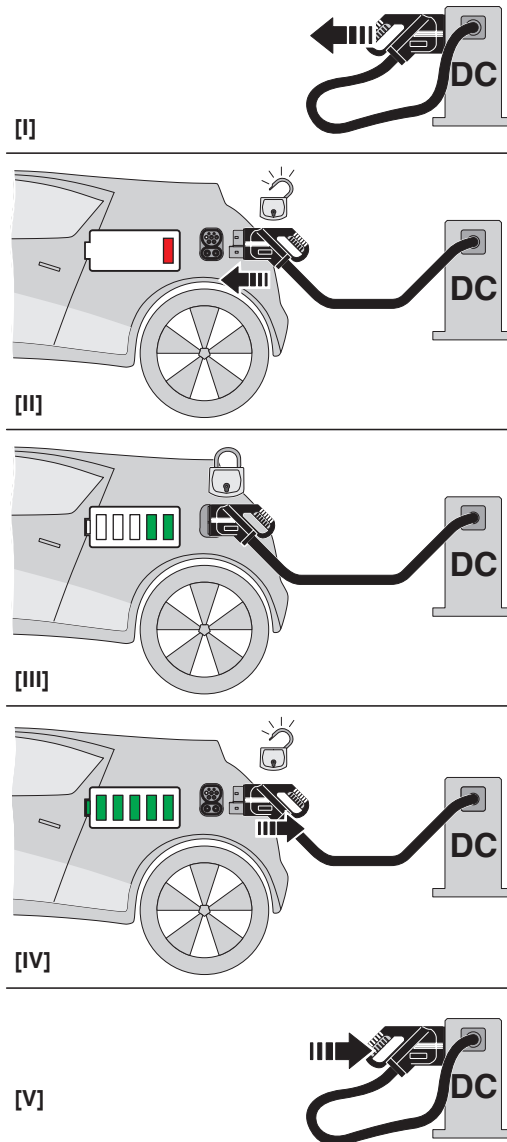
Installation positions

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Schematic diagram



Operating instructions

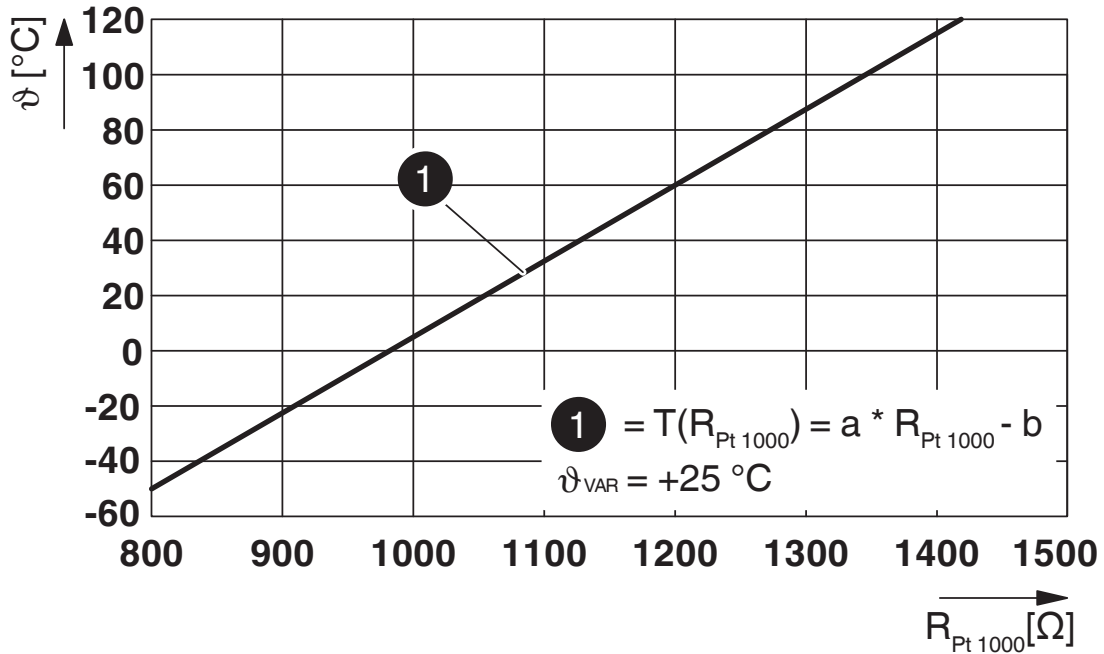
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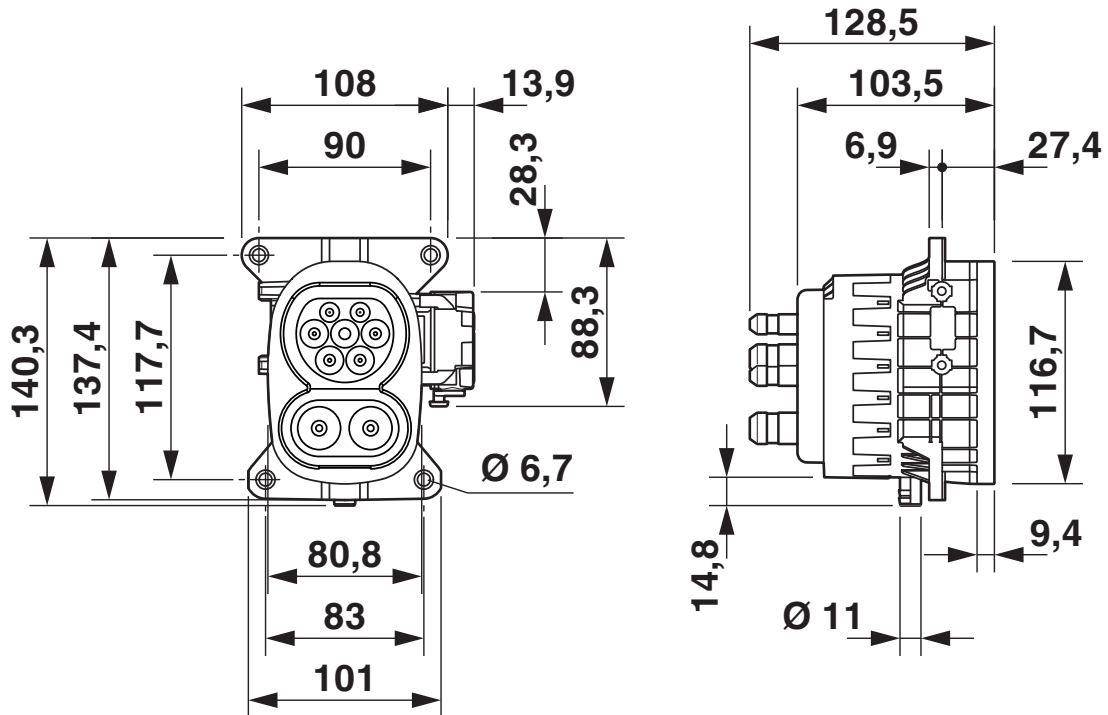
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Diagram



Pt 1000 characteristic curve at an ambient temperature of 25°C for temperature measurement at the DC contacts

Dimensional drawing

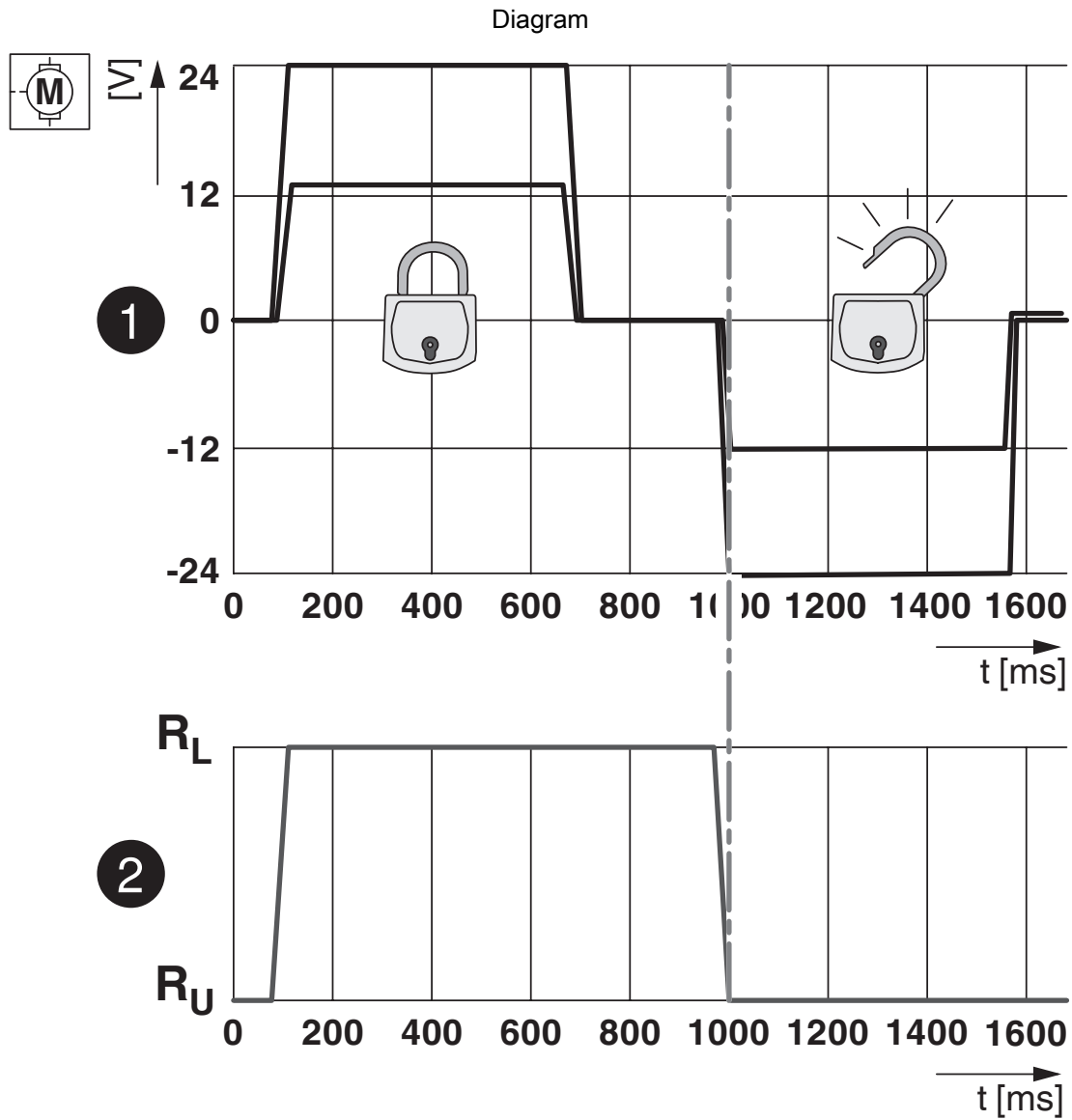


Dimensional drawing

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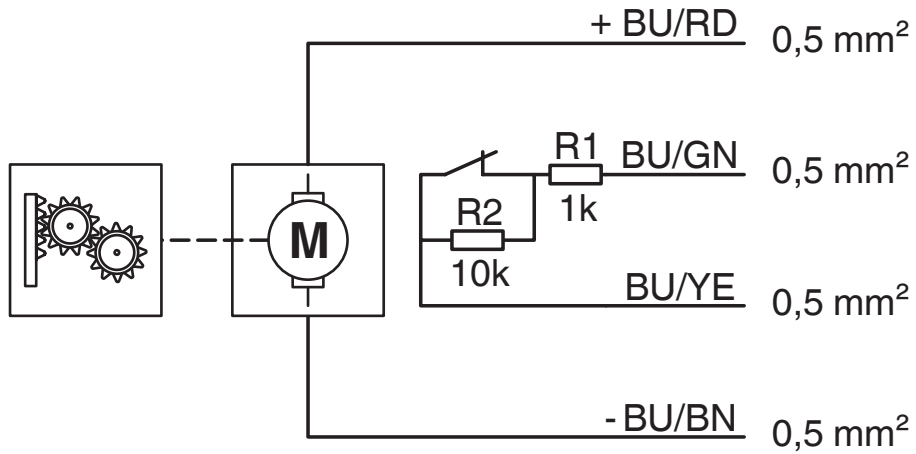
Locking states of the locking actuator

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Schematic diagram

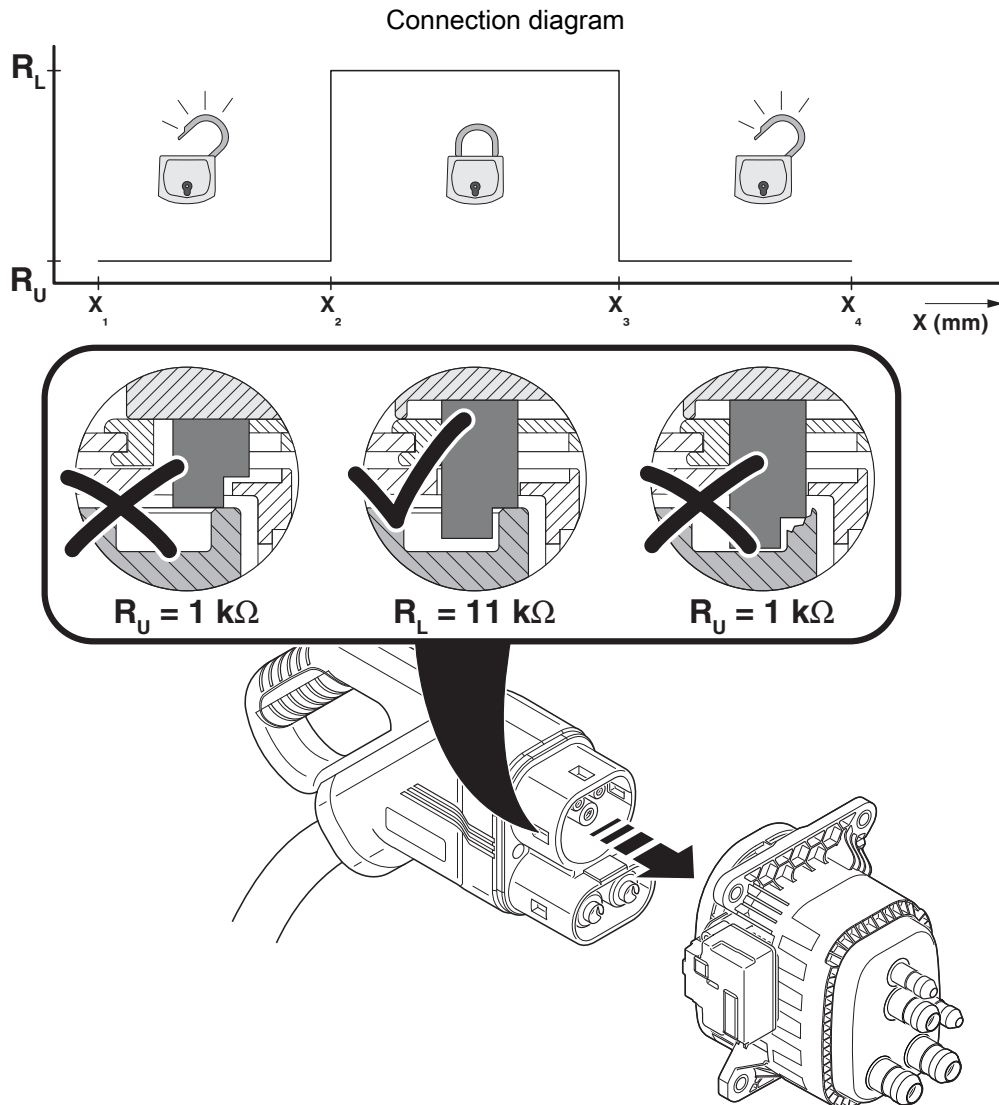


Block diagram of the locking actuator

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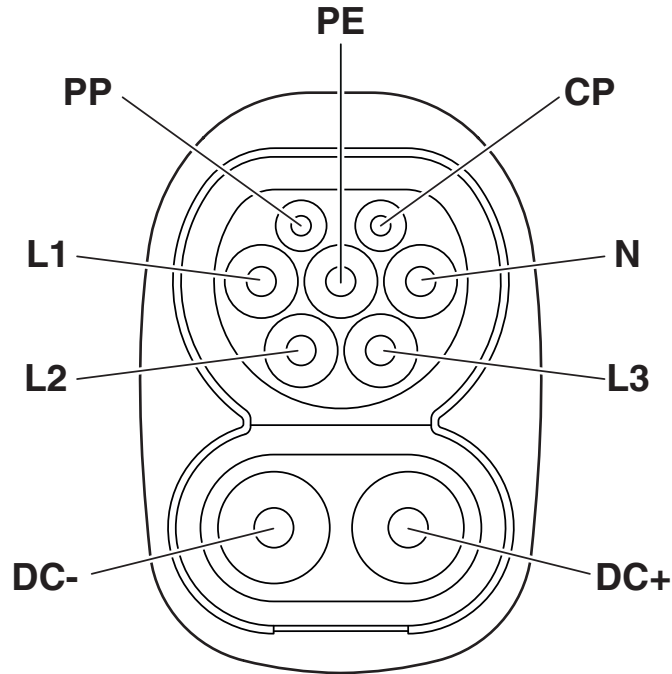
Detection for Vehicle Connector

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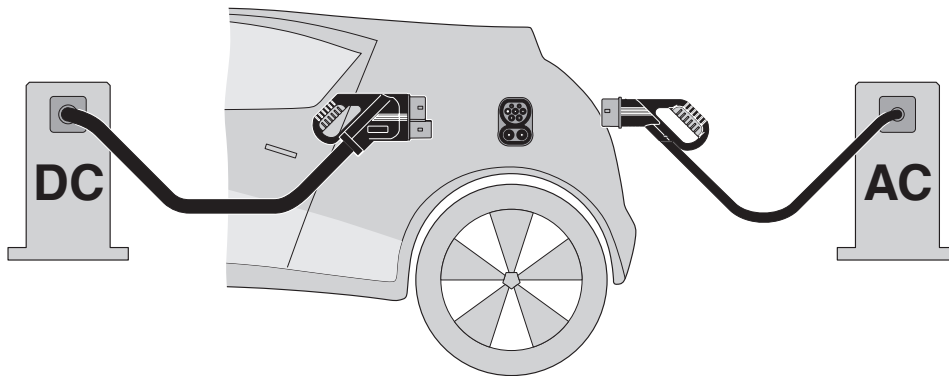
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Connection diagram



Pin assignment of vehicle charging inlets

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.

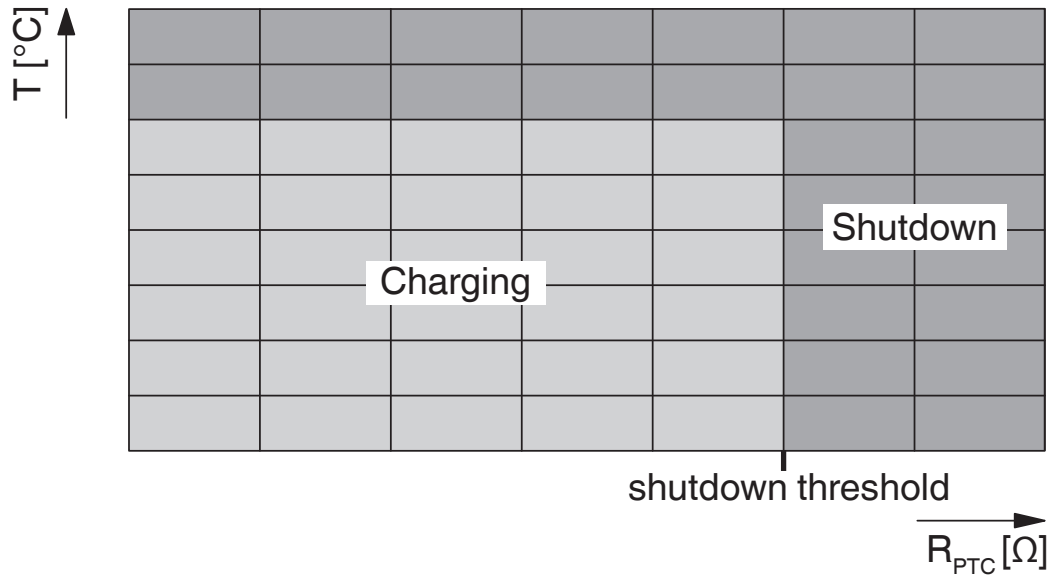
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Schematic diagram



Temperature sensor technology resistance range at AC contacts

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Classifications

ECLASS

| | |
|---------------|----------|
| ECLASS-9.0 | 27144706 |
| ECLASS-10.0.1 | 27144706 |
| ECLASS-11.0 | 27144706 |

ETIM

| | |
|----------|----------|
| ETIM 8.0 | EC002898 |
|----------|----------|

UNSPSC

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

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Environmental Product Compliance

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

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