

# Vehicle charging inlet - CHARX T2HBI24-3AC32DC200-2,0M2



1211212

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CHARX connect, Vehicle charging inlet, for charging with alternating current (AC) and with direct current (DC), CCS type 2, IEC 62196-2, IEC 62196-3, 200 A / 1000 V (DC), 32 A / 480 V (AC), locking actuator: 24 V, 4-pos., Front and rear mounting, M6, X-Line, housing: black, A protective cap is supplied as standard for the DC and AC contacts.

## Product Description

Vehicle charging inlet for charging with alternating current (AC) and direct current (DC), compatible with type 2 AC and 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	1211212
Packing unit	1 pc
Minimum order quantity	1 pc
Sales Key	XWC
Product Key	XWCAID
GTIN	4063151284404
Weight per Piece (including packing)	6,235 g
Weight per Piece (excluding packing)	6,235 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 DC and AC contacts.
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### Product properties

Product type	Vehicle charging inlet
Application	for charging with alternating current (AC) and 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 2, 3, 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 MΩ
Coding	4.7 kΩ (between PE and PP)
Temperature measurement	DC contacts: 2x PT1000 (DIN EN 60751)
Temperature monitoring	AC contacts: PTC chain (DIN EN 60738-1)
Type of charging current	AC 3-phase
Charging power	26 kW
Charging current	32 A
Type of charging current	DC
Charging power	200 kW
Charging current	200 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	7 (L1, L2, L3, N, PE, DC+, DC-)
Rated voltage	480 V AC
	1000 V DC
Rated current	32 A AC
	200 A DC

### Signal contact

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

(PTC chain)

Sensor type	PTC chain
Standards/regulations	DIN EN 60738-1
Messbereich_Widerstand	790 $\Omega$ ... 1420 $\Omega$
Resistance	max. 1280 $\Omega$ $\pm$ 5 K
Recommended measured current	$\leq$ 1 mA ( $U_{max}$ = 16 V DC)
TEST Umgebungstemperatur Neu	-40 °C ... 130 °C

(Pt 1000)

Sensor type	Pt 1000
Standards/regulations	DIN EN 60751

Locking actuator

Operating voltage	24 V
Note number of positions	4-pos.
Position of the locking actuator	right-side

Locking actuator

Possible power supply range at the motor	22 V ... 26 V
Maximum voltage for locking detection	30 V
Typical motor current for locking	0.05 A
Reverse current of the motor	max. 0.5 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)	-30 °C ... 50 °C

## Dimensions

Dimensional drawing	
Width	108 mm
Height	130.4 mm
Depth	128.4 mm
Bore dimensions	117.65 mm x 90 mm, 117.65 mm x 83 mm

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## Material specifications

Material	Plastic
	Silver

## Connector

Insertion/withdrawal cycles	> 10000
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## Cable / line

### AC cable

Cable weight	approx. 450 kg/km
Conductor structure	4 x 6 mm <sup>2</sup>
External cable diameter	14.7 mm ±0.2 mm
Outer sheath, material	Silicone
External sheath, color	orange
Conductor resistance	≤ 3.2 Ω/km

### DC cable

Cable weight	approx. 889 kg/km
Conductor structure	2 x 70 mm <sup>2</sup>
External cable diameter	17.9 mm ±0.3 mm
Outer sheath, material	Silicone
External sheath, color	orange
Conductor resistance	≤ 0.259 Ω/km
Cable weight	approx. 251 kg/km
Conductor structure	1 x 25 mm <sup>2</sup>
External cable diameter	8.6 mm ±0.1 mm
Outer sheath, material	Silicone
External sheath, color	green-yellow
Conductor resistance	≤ 0.743 Ω/km

### Communication cable

Cable weight	7 kg/km
Conductor structure	0.5 mm <sup>2</sup> + 0.5 mm <sup>2</sup>
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 <sup>2</sup>

## Mechanical properties

### Mechanical data

Insertion force	< 100 N
Withdrawal force	< 100 N

## Environmental and real-life conditions

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## 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)
	IP55 (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

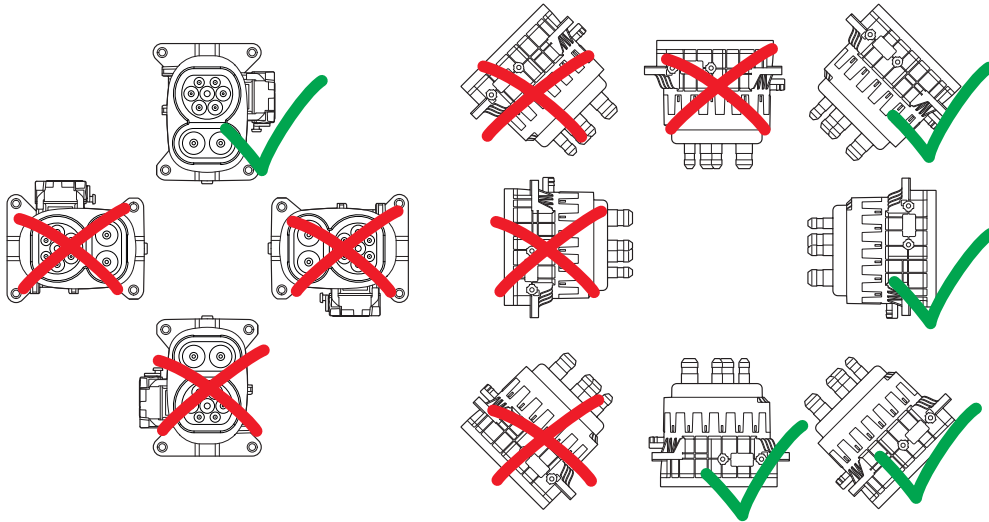
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## Drawings

Connection diagram



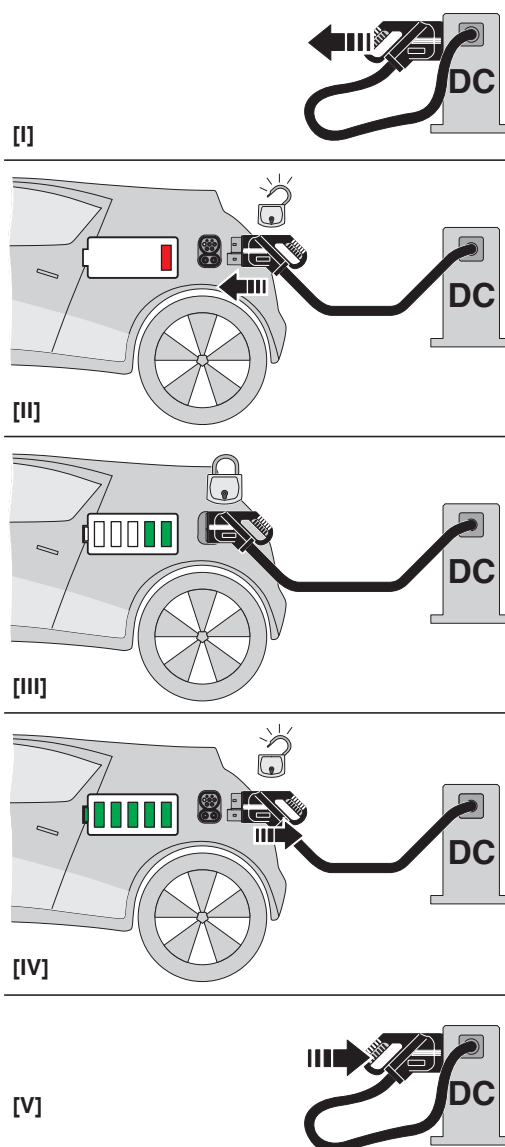
Installation positions

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Schematic diagram



Operating instructions

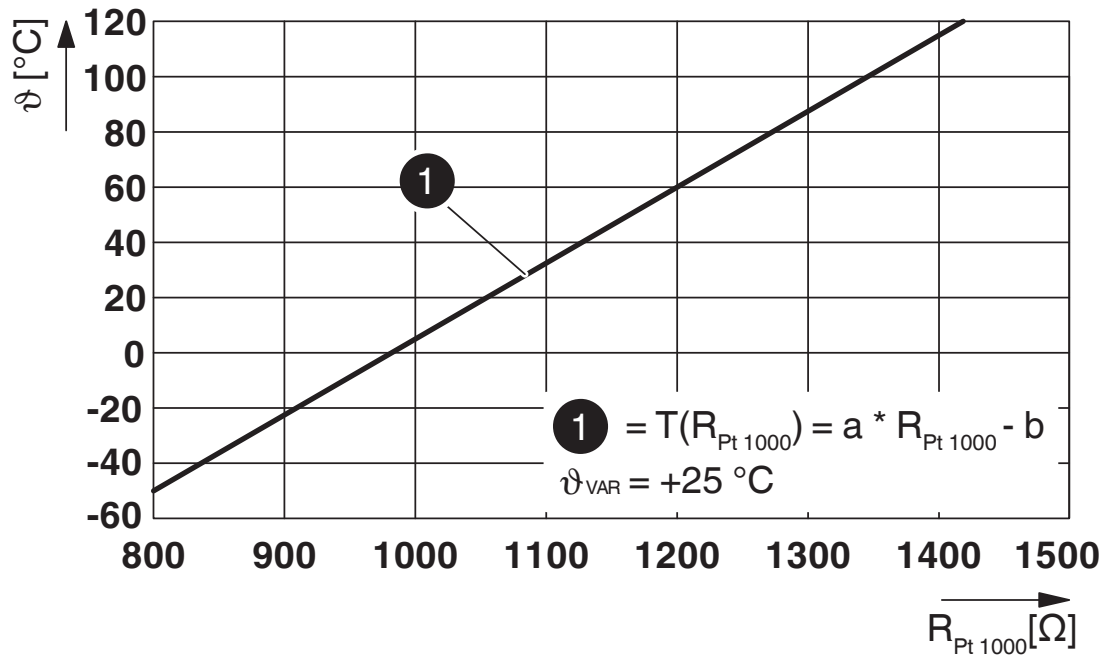
# Vehicle charging inlet - CHARX T2HBI24-3AC32DC200-2,0M2



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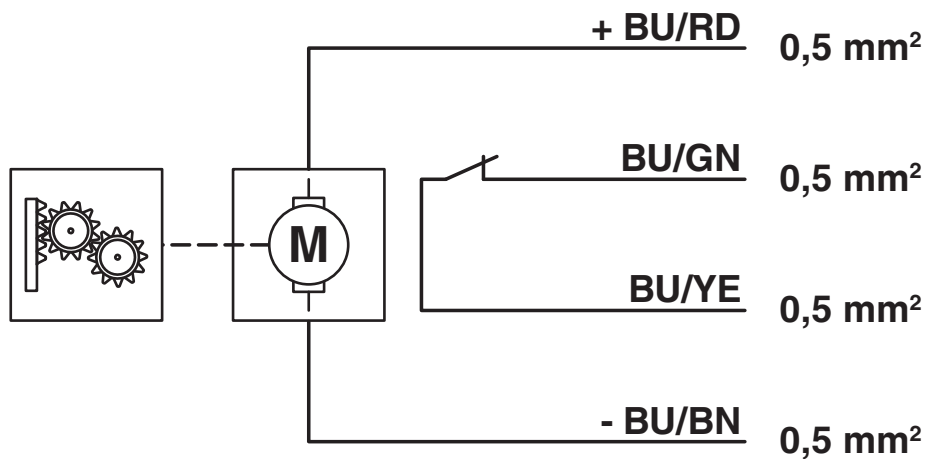
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Diagram



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

Block diagram



Block diagram of the locking actuator

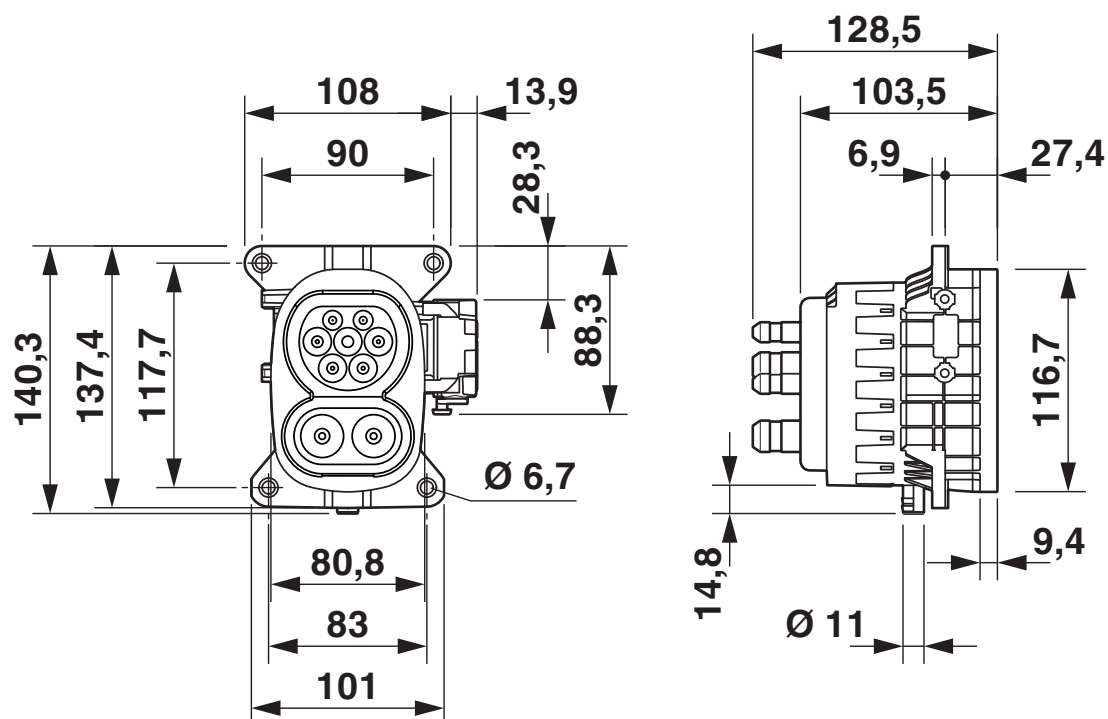


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Dimensional drawing

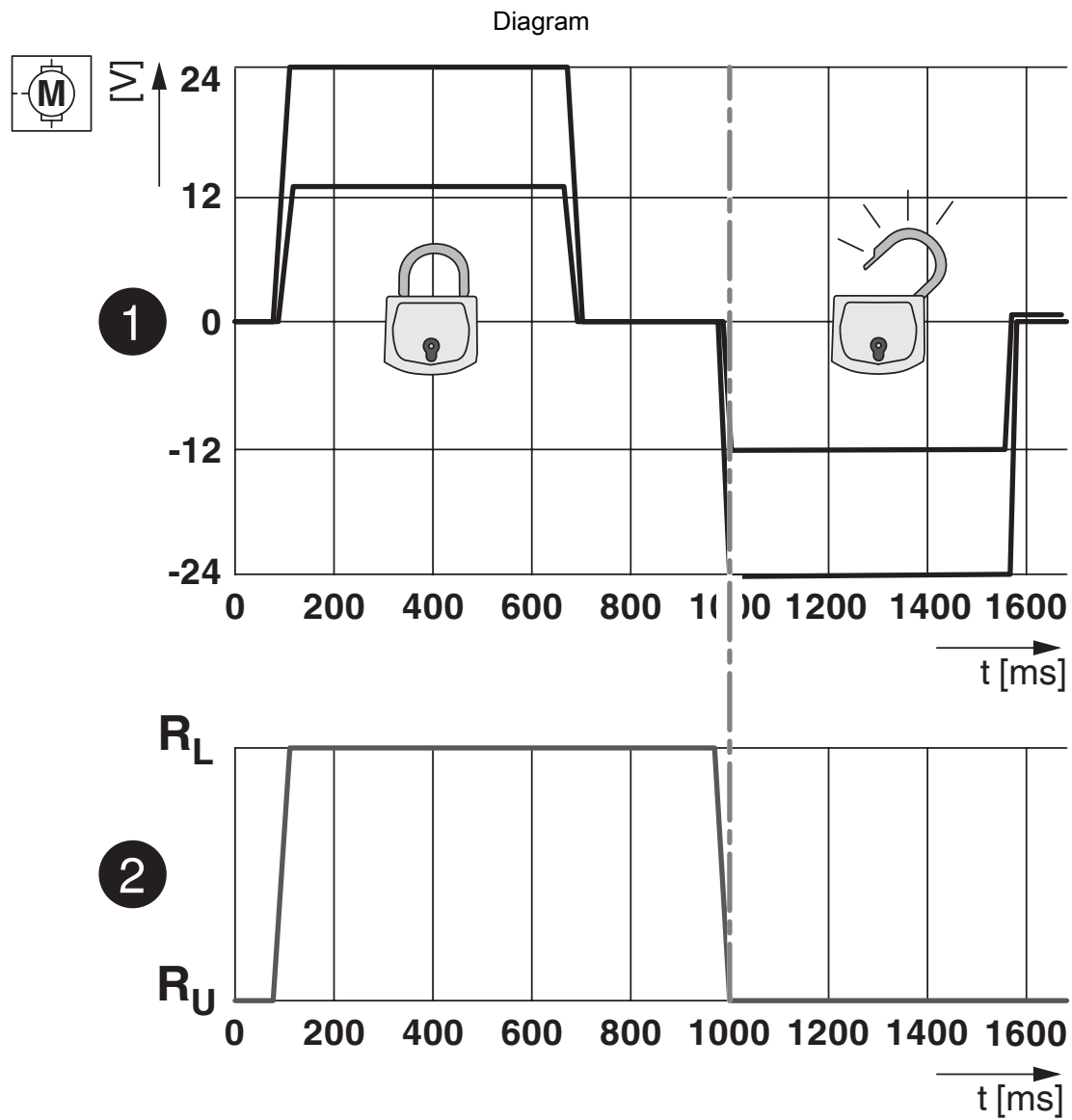


Dimensional drawing

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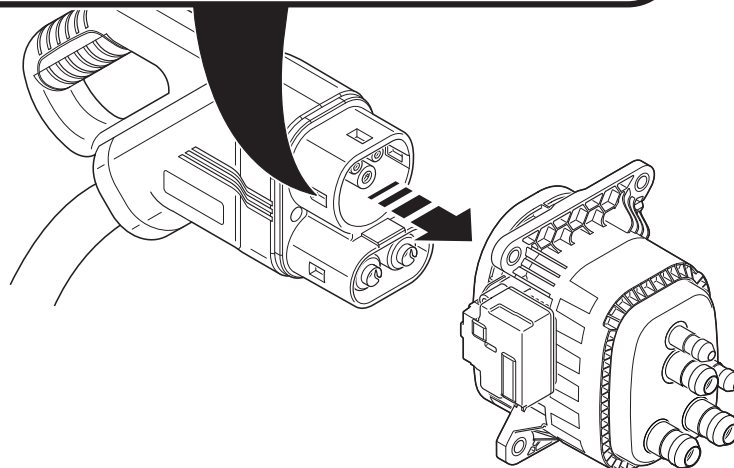
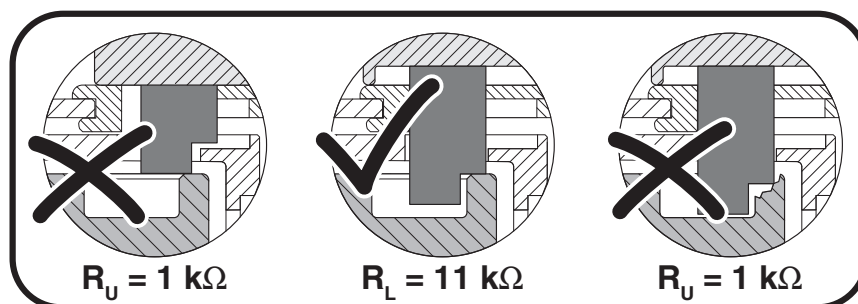
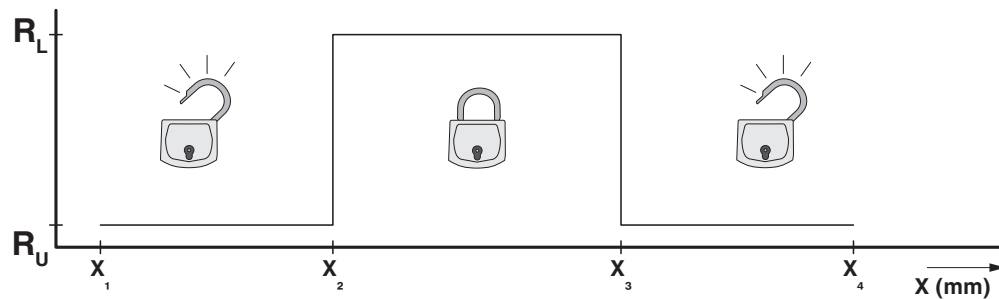
Locking states of the locking actuator

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Connection diagram



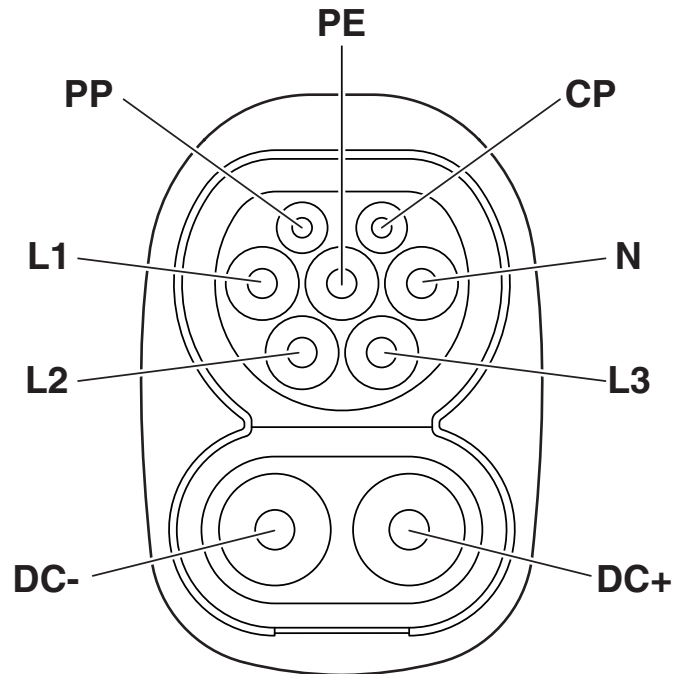
Detection for Vehicle Connector

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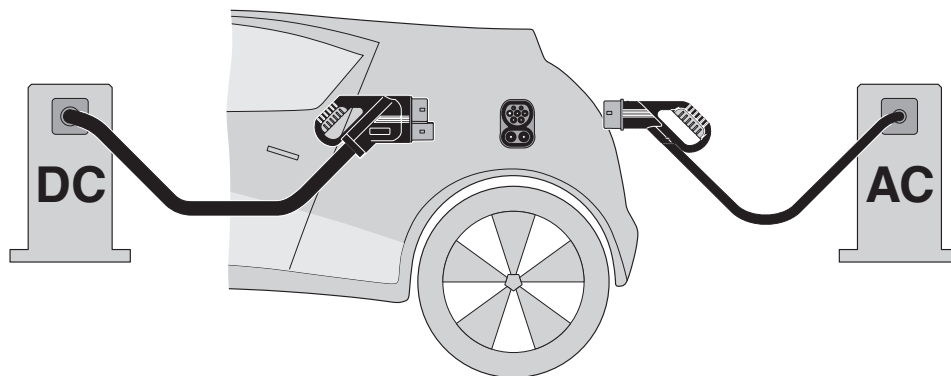
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Connection diagram



Pin assignment of vehicle charging inlets

Schematic diagram



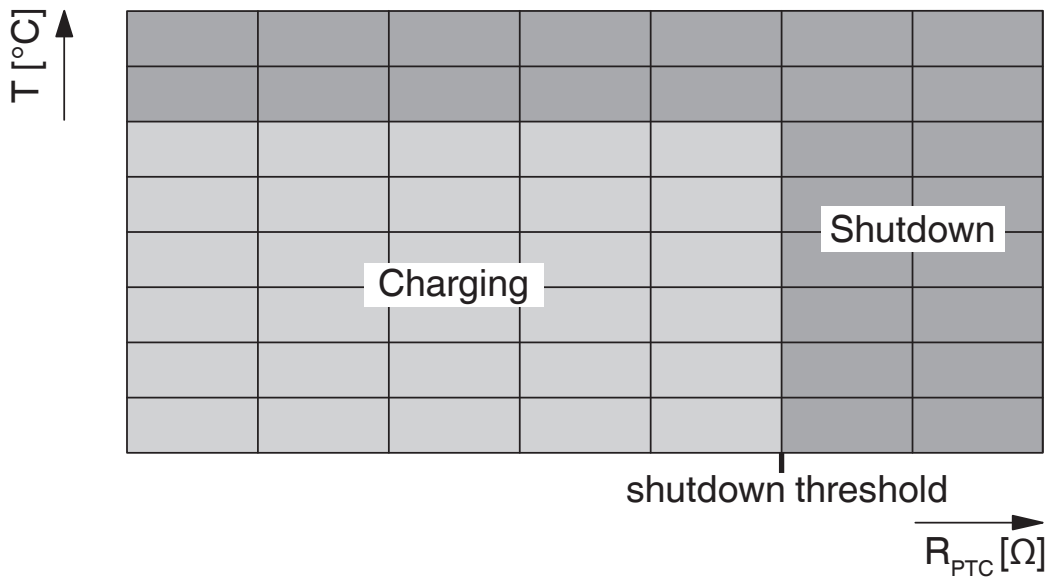
The Combined Charging System (CCS) principle - standard-compliant charging system for electric vehicles, which supports both conventional AC charging and fast DC charging. Both Vehicle Connectors fit into the CCS Vehicle Inlet.

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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
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### UNSPSC

UNSPSC 21.0	39121800
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## Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
	DOT 15571-58-1
	Dechlorane Plus
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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