

Vehicle charging inlet - CHARX T2HBI24-3AC32DC250-2,0M2



1270301

<https://www.phoenixcontact.com/us/products/1270301>

Please be informed that the data shown in this PDF document is generated from our Online Catalog. Please find the complete data in the user documentation. Our General Terms of Use for Downloads are valid.



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, 250 A / 1000 V (DC), 32 A / 480 V (AC), length: 2 m (AC cables), locking actuator: 24 V, 4-pos., Front and rear mounting, M6, X-Line, 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	1270301
Packing unit	1 pc
Minimum order quantity	1 pc
Sales Key	A17
Product Key	XWCAID
GTIN	4063151440084
Weight per Piece (including packing)	7,485 g
Weight per Piece (excluding packing)	7,000 g
Customs tariff number	85444290
Country of origin	PL

Vehicle charging inlet - CHARX T2HBI24-3AC32DC250-2,0M2



1270301

<https://www.phoenixcontact.com/us/products/1270301>

Technical Data

Notes

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

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 according to 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	26.6 kW
Charging current	32 A
Type of charging current	DC
Charging power	250 kW
Charging current	250 A
Type of charging current	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
	250 A DC

Signal contact

Vehicle charging inlet - CHARX T2HBI24-3AC32DC250-2,0M2



1270301

<https://www.phoenixcontact.com/us/products/1270301>

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

Temperature sensors

Sensor type	PTC chain
Standards/regulations	DIN EN 60738-1
Recommended measured current	$\leq 1 \text{ mA}$ ($U_{\text{max}} = 16 \text{ V DC}$)
Tolerance at the sensor with the recommended measured current	$\pm 5 \text{ K}$
Temperature range	-40 °C ... 130 °C

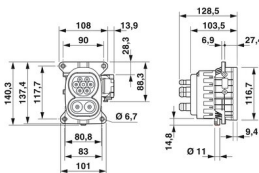
Locking actuator

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
Ambient temperature (operation)	-30 °C ... 50 °C
Cable length	0.5 m
Cable structure	4 x 0.5 mm ²
Lock recognition	available
Mechanical emergency release	available

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

Material specifications

Material	Plastic
----------	---------

Vehicle charging inlet - CHARX T2HBI24-3AC32DC250-2,0M2



1270301

<https://www.phoenixcontact.com/us/products/1270301>

	Silver
--	--------

Connector

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

Cable / line

Cable length	2 m (AC cables)
	2 m (DC cables)
	2 m (PE cable)
	1 m (Locking actuator cables)
	1 m (Temperature sensors cables)
	1 m (Communications cables)

AC cable

Cable weight	approx. 450 kg/km
Conductor structure	4 x 6 mm ²
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. 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

PE cable

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

Locking actuator cable

Cable weight	7 kg/km
Conductor structure	4 x 0.5 mm ²
External cable diameter	1.6 mm -0.2 mm
Outer sheath, material	PVC
Conductor resistance	≤ 37.1 Ω/km

Temperature sensor technology cable

Cable weight	7 kg/km
--------------	---------

Vehicle charging inlet - CHARX T2HBI24-3AC32DC250-2,0M2



1270301

<https://www.phoenixcontact.com/us/products/1270301>

Conductor structure	5 x 0,5 mm ²
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
Cable type	Single wires
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)
	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	6.80 mm (ø)
Fixing screws	M6
Screws included in the scope of delivery	none

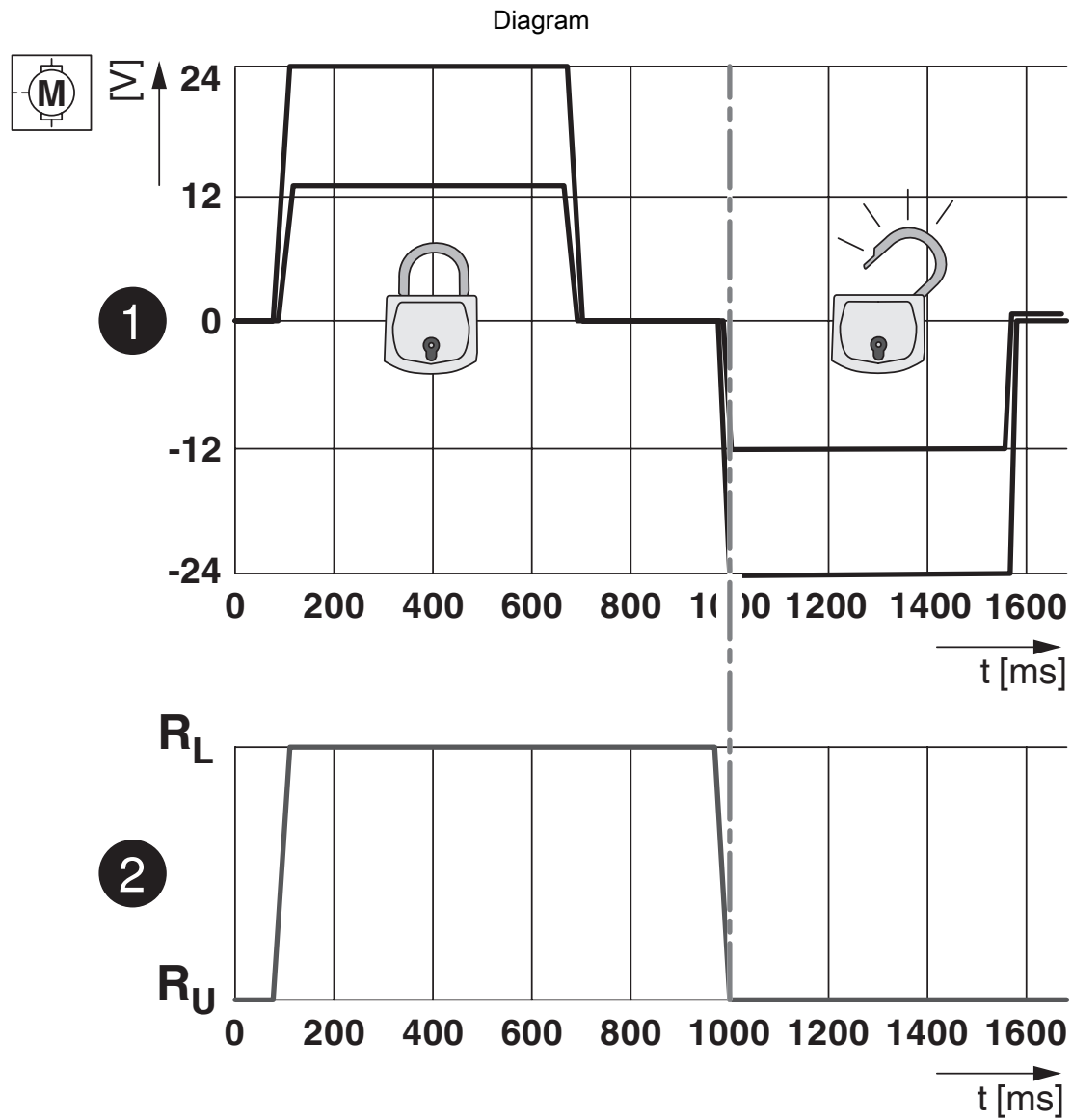
Vehicle charging inlet - CHARX T2HBI24-3AC32DC250-2,0M2



1270301

<https://www.phoenixcontact.com/us/products/1270301>

Drawings

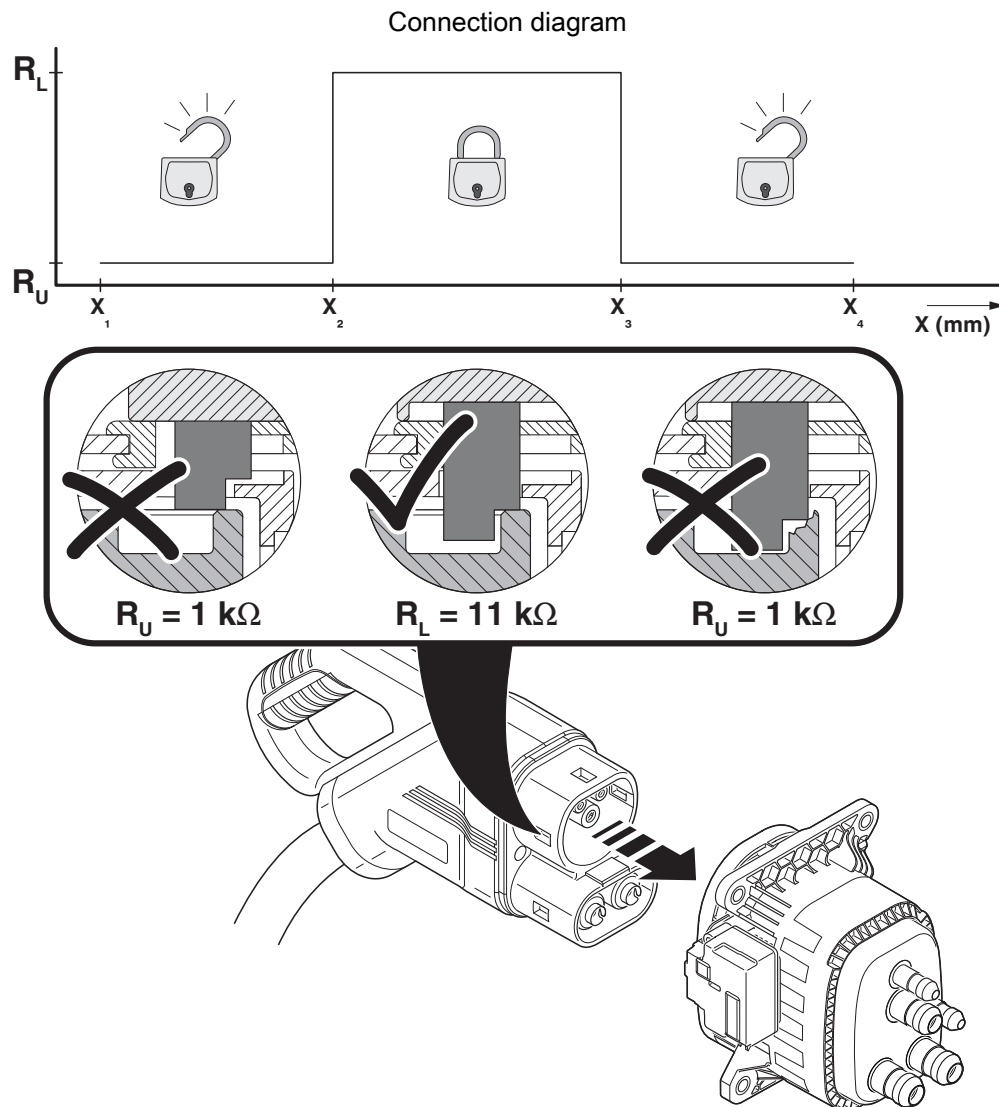


Locking states of the locking actuator

Vehicle charging inlet - CHARX T2HBI24-3AC32DC250-2,0M2

1270301

<https://www.phoenixcontact.com/us/products/1270301>



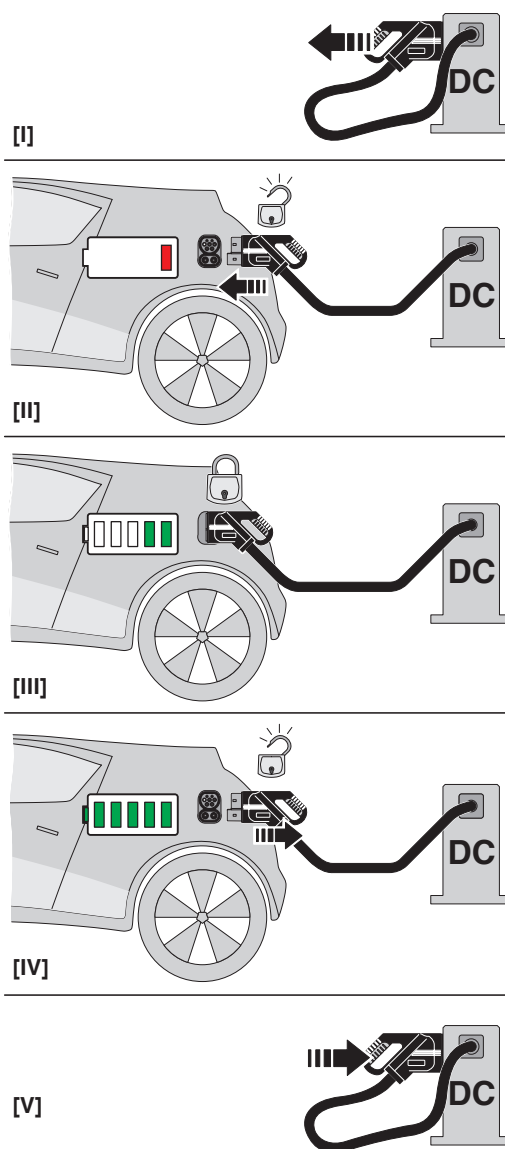
Detection for Vehicle Connector

Vehicle charging inlet - CHARX T2HBI24-3AC32DC250-2,0M2

1270301

<https://www.phoenixcontact.com/us/products/1270301>

Schematic diagram



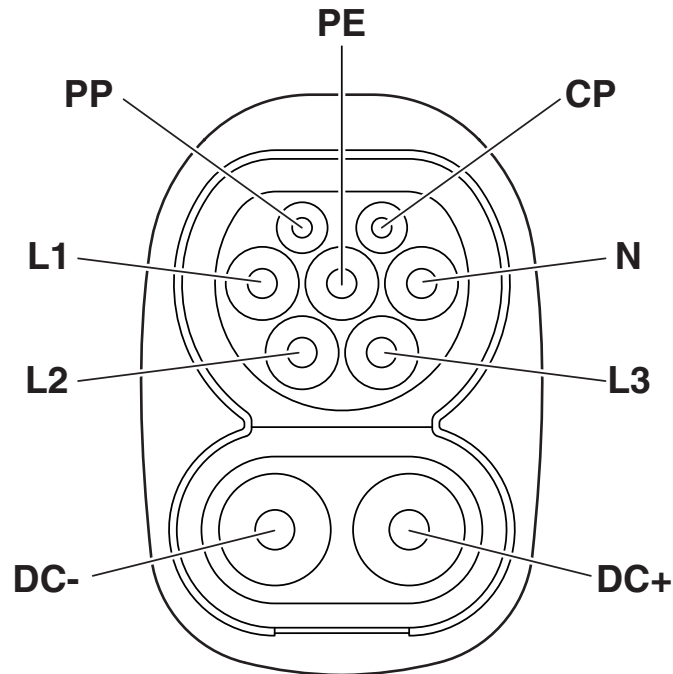
Operating instructions

Vehicle charging inlet - CHARX T2HBI24-3AC32DC250-2,0M2

1270301

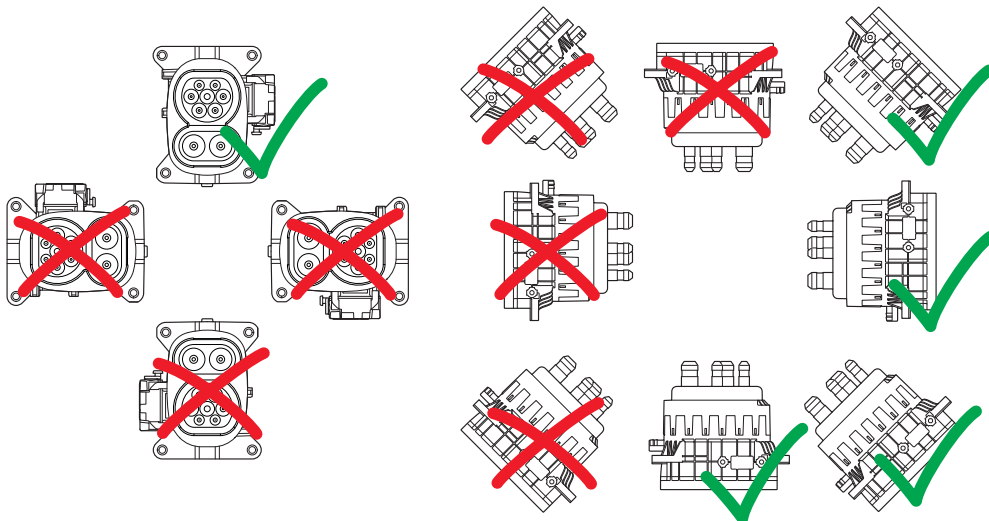
<https://www.phoenixcontact.com/us/products/1270301>

Connection diagram



Pin assignment of vehicle charging inlets

Connection diagram



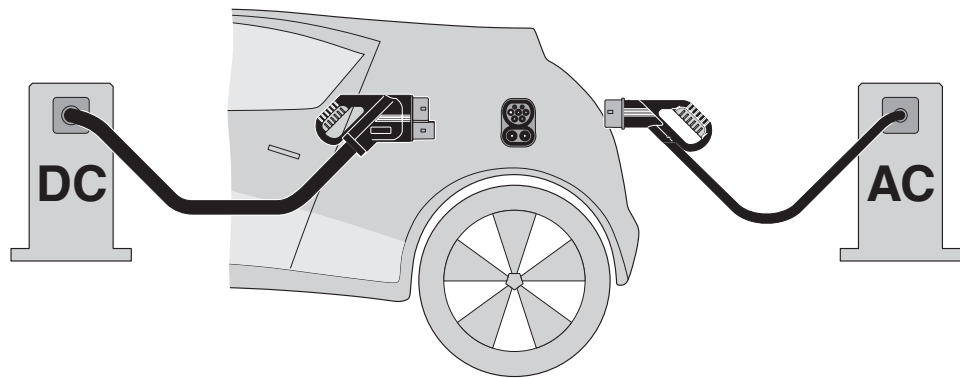
Installation positions

Vehicle charging inlet - CHARX T2HBI24-3AC32DC250-2,0M2



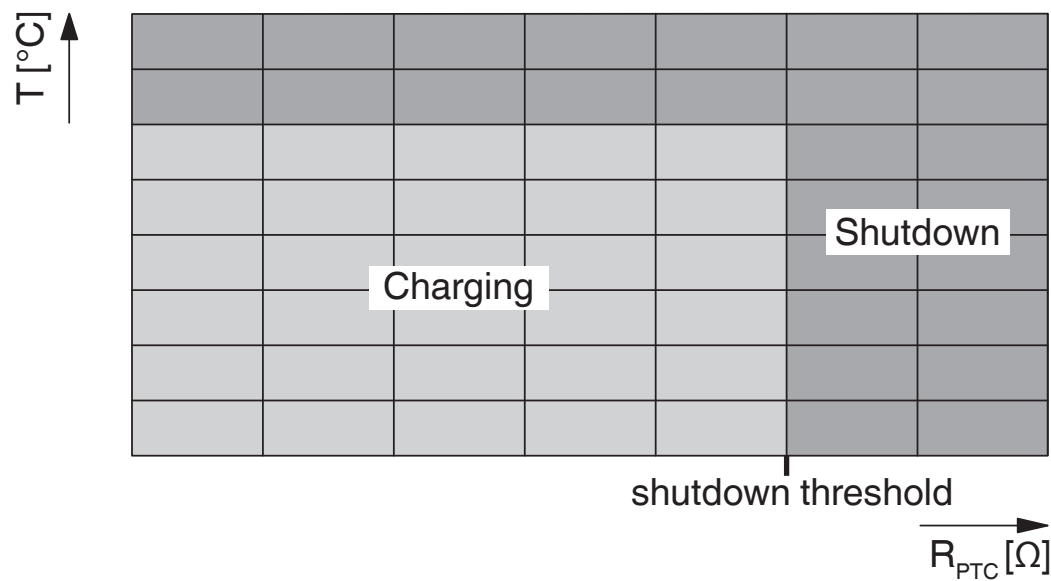
1270301
<https://www.phoenixcontact.com/us/products/1270301>

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



Temperature sensor technology resistance range at AC contacts

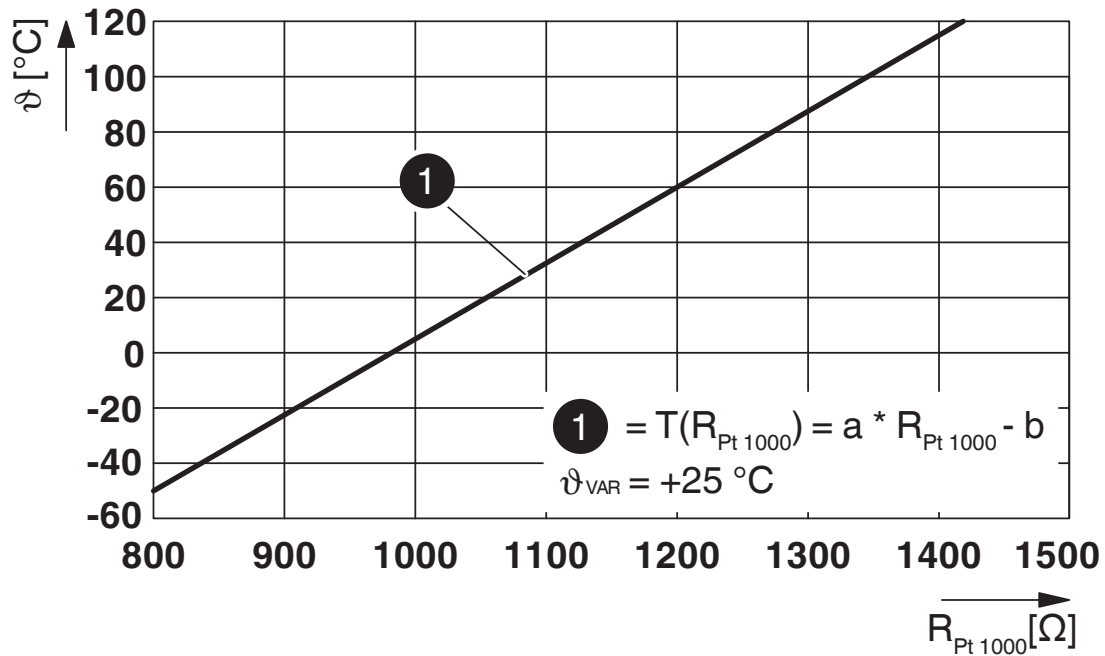
Vehicle charging inlet - CHARX T2HBI24-3AC32DC250-2,0M2



1270301

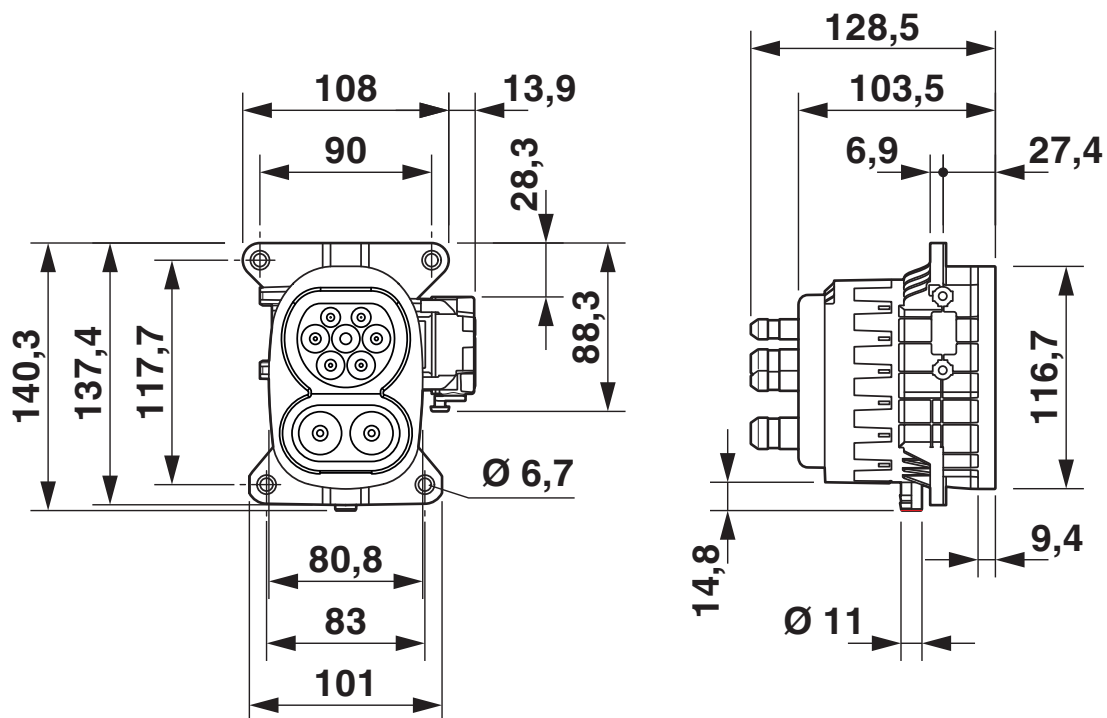
<https://www.phoenixcontact.com/us/products/1270301>

Diagram



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

Dimensional drawing



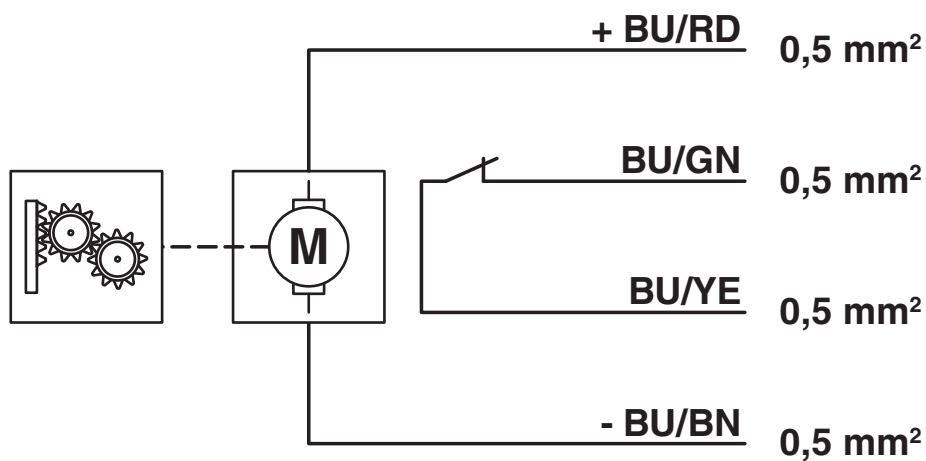
Dimensional drawing

Vehicle charging inlet - CHARX T2HBI24-3AC32DC250-2,0M2

1270301

<https://www.phoenixcontact.com/us/products/1270301>

Block diagram



Block diagram of the locking actuator

Vehicle charging inlet - CHARX T2HBI24-3AC32DC250-2,0M2



1270301

<https://www.phoenixcontact.com/us/products/1270301>

Classifications

ECLASS

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

ETIM

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

UNSPSC

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

Vehicle charging inlet - CHARX T2HBI24-3AC32DC250-2,0M2



1270301
<https://www.phoenixcontact.com/us/products/1270301>

Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
	Dechlorane Plus

Phoenix Contact 2022 © - all rights reserved
<https://www.phoenixcontact.com>

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

单击下面可查看定价，库存，交付和生命周期等信息

[>>Phoenix Contact\(菲尼克斯\)](#)