

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



1271960

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CHARX connect universal, AC type 1, Vehicle charging inlet, 48 A , 250 V AC, Single-core wires connected at one end, length: 2 m, locking actuator: 12 V, 4-pos., Front and rear mounting, M6, housing: black, for charging with alternating current (AC) and with direct current (DC), SAE J1772, IEC 62196-3, A protective cap is supplied as standard for the AC contacts.

The figure shows a version of the product

## 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)	101 g
Customs tariff number	85444290
Country of origin	PL

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## Technical data

### Product properties

Product type	Vehicle charging inlet
Product family	CHARX connect universal
Charging standard	AC type 1
Charging mode	Mode 2, 3
Customer variations	On request

### Electrical properties

#### Charging power and current (AC charging, 1-phase)

Type of charging current	AC single-phase
Charging current	48 A AC (1-phase)
Charging power	12 kW

#### Pin assignment (Power contacts)

Note on the connection method	Crimp connection, cannot be disconnected
Number	3 (L1, N, PE)
Rated voltage	250 V AC
Rated current	48 A AC

#### Pin assignment (Signal contacts)

Note on the connection method	Crimp connection, cannot be disconnected
Type of signal transmission	Pulse width modulation with modulated Powerline communication in accordance with ISO/IEC 15118 / DIN SPEC 70121
Number	2 (CP, CS)
Rated voltage	30 V AC
Rated current	2 A
Coding	2.7 k $\Omega$ (between PE and CS)
Insulation resistance	> 200 M $\Omega$

#### Locking actuator

Locking actuator	12 V, 4-pos.
	Top center position
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

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Ambient temperature (operation)	-40 °C ... 80 °C
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 Ω ... 1420 Ω
Resistance	max. 1200 Ω ±5 K
Recommended measured current	≤ 1 mA (U <sub>max</sub> = 16 V DC)
Ambient temperature	-40 °C ... 130 °C (Operation)

## Dimensions

### Vehicle charging inlet

Width	90 mm
Height	90 mm
Depth	112.2 mm

### Bore 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-core wires connected at one end

### Single-core wires for AC

Cable length	2 m
Cable structure	3 x 6 mm <sup>2</sup>
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 <sup>2</sup>
Single wire, material	PVC
Single wire, color	BU/RD, BU/GN, BU/YE, BU/BN
External cable diameter	1.60 mm ±0.20 mm

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Cable resistance	≤ 37.1 Ω/m
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## Single-core wires for temperature sensors

Cable length	1 m
Cable structure	5 x 0,5 mm <sup>2</sup>
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 <sup>2</sup>
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

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 ... 40 °C (Max. 60 K heating, current reduction required. Observe the limit value for the DC contact temperature of 90 °C.)
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Altitude	4000 m (above sea level)

## Standards and regulations

Standards/specifications	SAE J1772
Standards/specifications	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

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Screws included in the scope of delivery	none
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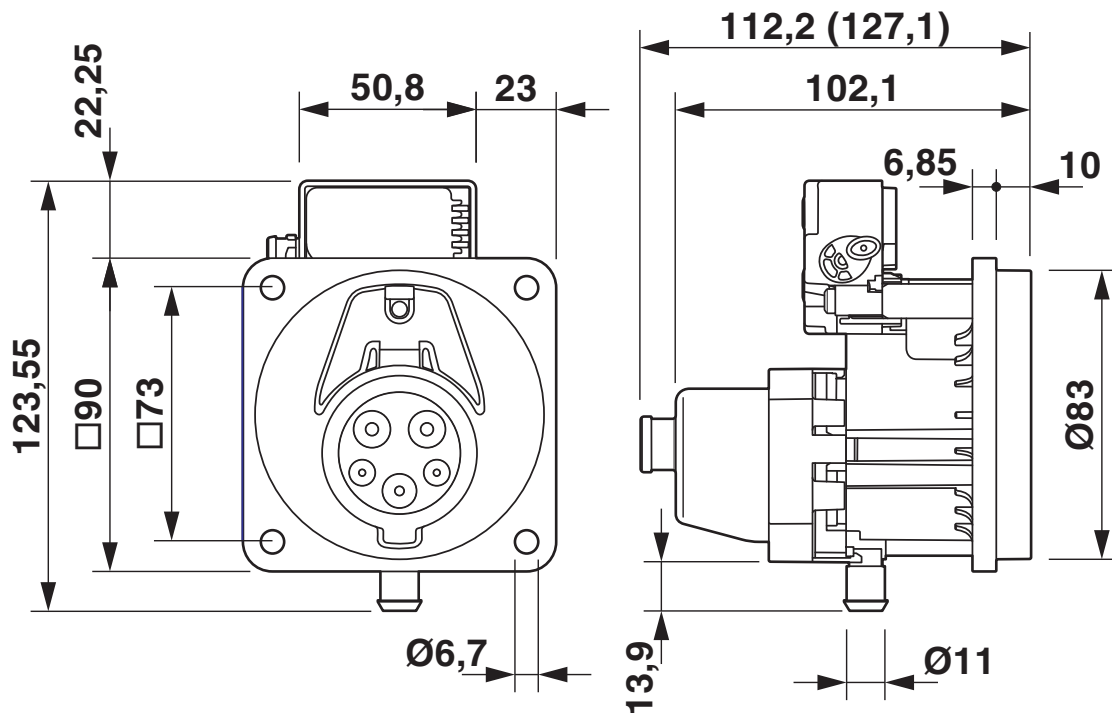
# CHARX T1HCI12-1AC48-2,0M1 - Vehicle charging inlet

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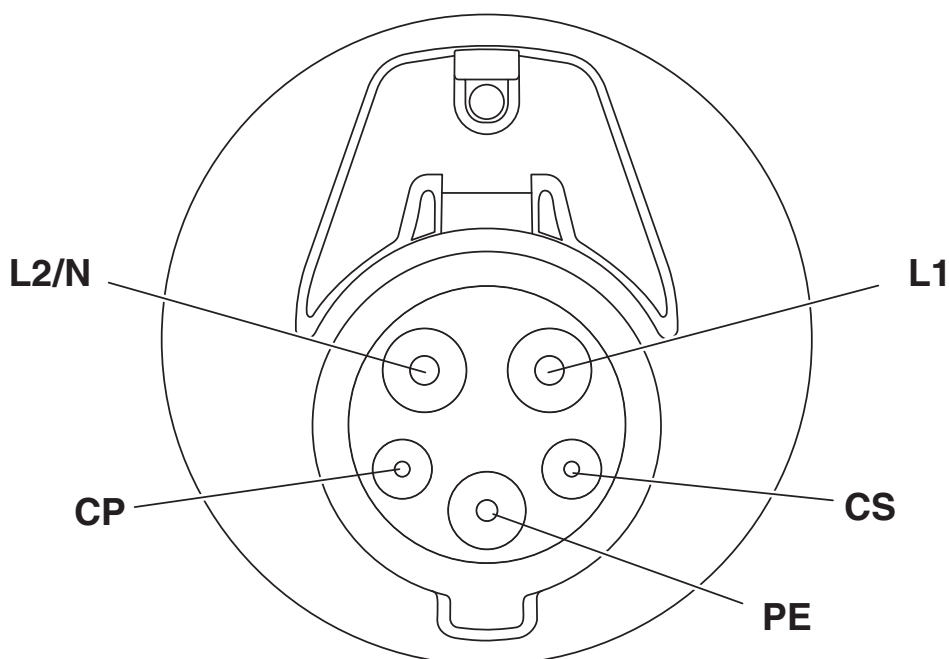
## Drawings

Dimensional drawing



Dimensional drawing

Connection diagram



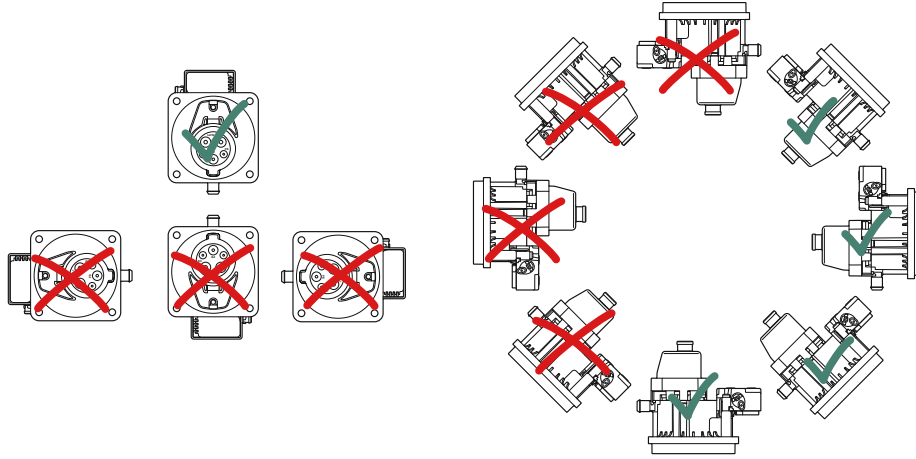
Pin assignment of vehicle charging inlets

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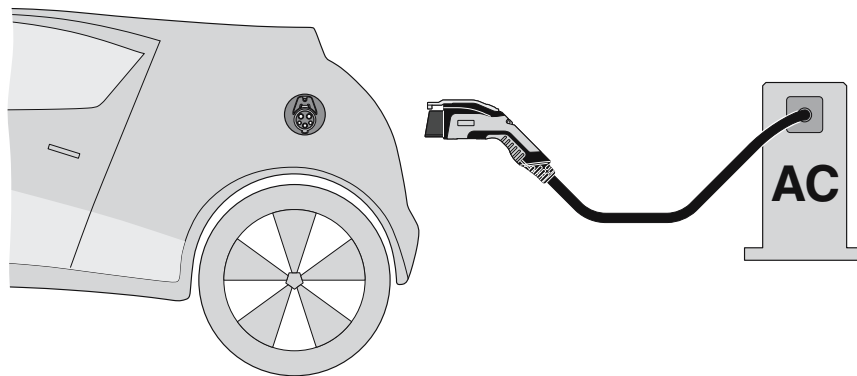
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Connection diagram



Installation positions

Connection diagram



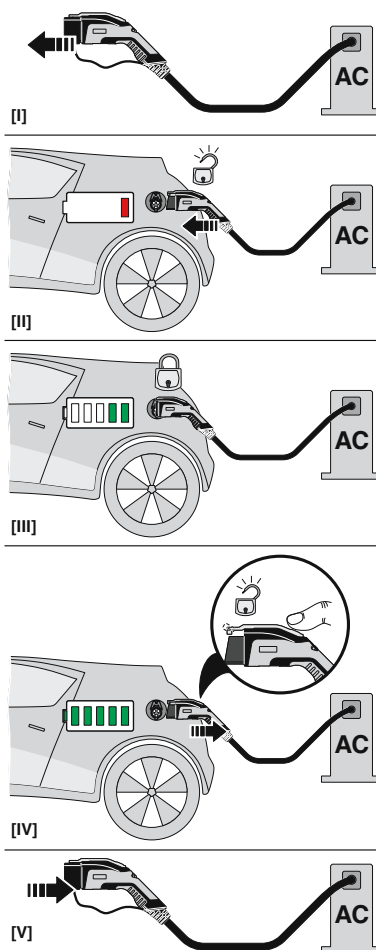
Terminology definition

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## Functional drawing



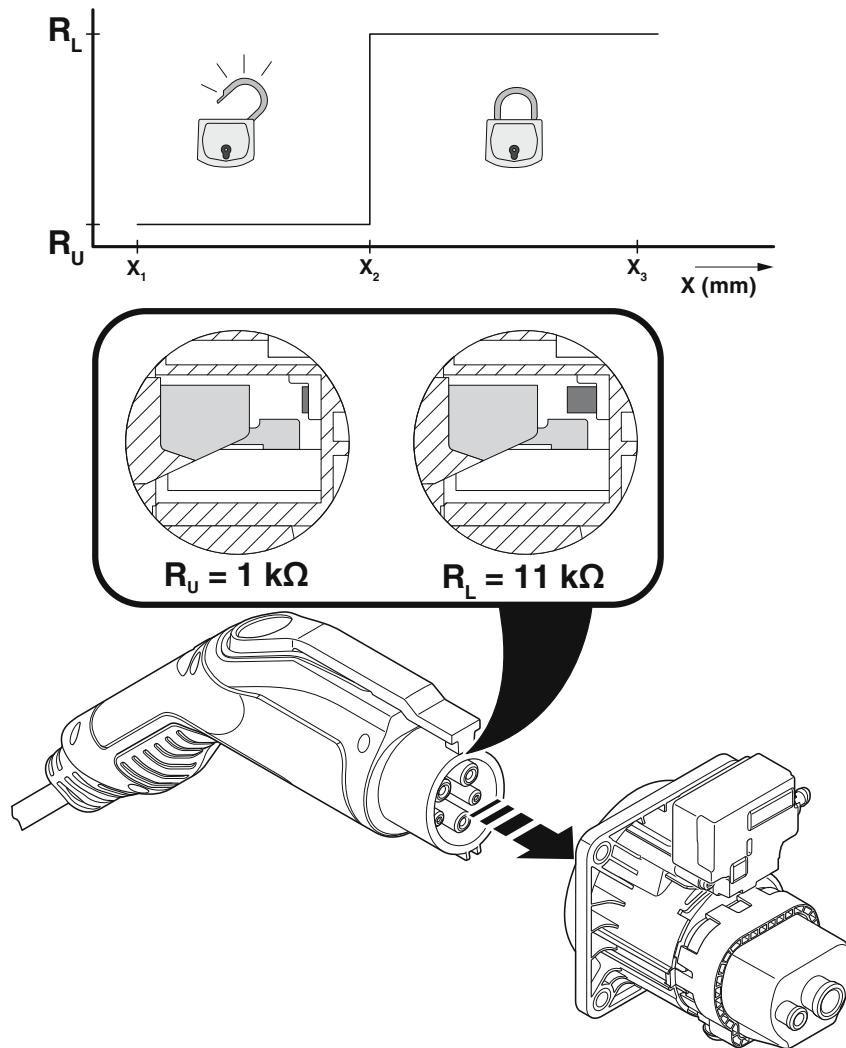
Operating instructions

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Schematic diagram



Detection for Vehicle Connector

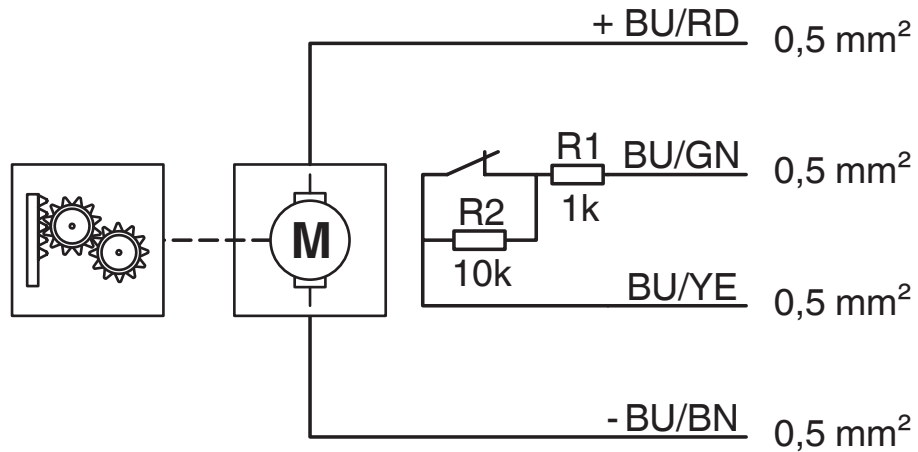
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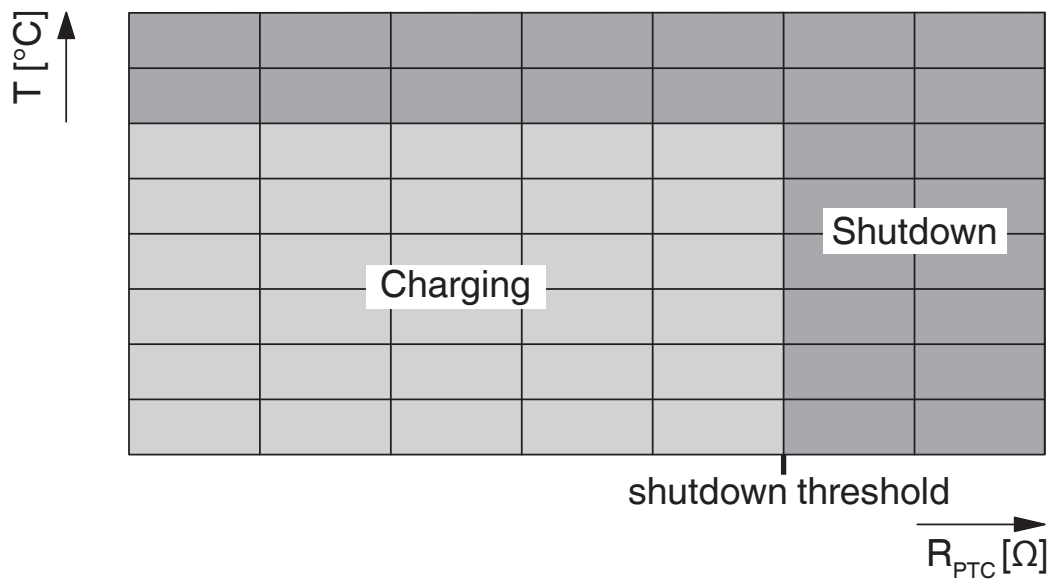
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Schematic diagram



Block diagram of the locking actuator

Schematic diagram



Temperature sensor technology resistance range at AC contacts

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Locking states of the locking actuator

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## Classifications

### ECLASS

ECLASS-15.0	27144706
ECLASS-13.0	27144706

### ETIM

ETIM 10.0	EC002898
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### UNSPSC

UNSPSC 21.0	39121800
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## Environmental product compliance

### EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	6(c), 7(c)-I

### China RoHS

Environment friendly use period (EFUP)	EFUP-50
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.

### EU REACH SVHC

REACH candidate substance (CAS No.)	Disodium 3,3'-[[1,1'-biphenyl]-4,4'-diylbis(azo)]bis(4-aminonaphthalene-1-sulphonate) (C.I. Direct Red 28)(CAS: 573-58-0)
	Lead(CAS: 7439-92-1)
	Bis(2-(2-methoxyethoxy)ethyl)ether(CAS: 143-24-8)
SCIP	cd491876-1351-4115-bad8-553a38f096e4

### EF3.1 Climate Change

CO2e kg	27.85 kg CO2e
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