

EV-T2M3SE12-3AC20A-0,7M2,5E14 - Infrastructure charging socket



1627985

<https://www.phoenixcontact.com/us/products/1627985>

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, Type 2, Infrastructure charging socket, 20 A , 480 V AC, length: 0.7 m, locking actuator: 12 V, 4-pos., Rear panel mounting, housing: black, gray, optimized insertion and withdrawal forces, for charging electric vehicles (EV) with alternating current (AC), PHOENIX CONTACT logo, IEC 62196-2

Product description

Infrastructure charging socket for charging electric vehicles (EV) with alternating current (AC), compatible with type 2 Infrastructure Plugs, for installation at charging stations for E-Mobility (EVSE)

Your advantages

- Complete product range
- Uniform, space-saving installation space
- Available with your logo on request - for consistent branding of your charging station
- Integrated interlock during charging
- Manual emergency release of the locking actuator
- Developed and produced in accordance with the IATF 16949 automotive standard and ISO 9001

Commercial data

| | |
|--------------------------------------|---------------|
| Item number | 1627985 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Product key | XWBADC |
| GTIN | 4055626369792 |
| Weight per piece (including packing) | 540 g |
| Weight per piece (excluding packing) | 436 g |
| Country of origin | DE |

EV-T2M3SE12-3AC20A-0,7M2,5E14 - Infrastructure charging socket



1627985

<https://www.phoenixcontact.com/us/products/1627985>

Technical data

Product properties

| | |
|---------------------|--|
| Product type | Infrastructure charging socket |
| Product family | CHARX connect |
| Application | for charging electric vehicles (EV) with alternating current (AC) compatible with infrastructure charging plugs |
| Design | optimized insertion and withdrawal forces |
| Charging standard | Type 2 |
| Charging mode | Mode 3, Case B |
| Affixed logo | PHOENIX CONTACT logo |
| Customer variations | On request |

Electrical properties

| | |
|-------------------------------|--|
| Type of signal transmission | Pulse width modulation |
| Note on the connection method | Crimp connection, cannot be disconnected |

Pin assignment (Leistungskontakte)

| | |
|---------------|-----------------------|
| Number | 5 (L1, L2, L3, N, PE) |
| Rated voltage | 480 V AC |
| Rated current | 20 A |

Pin assignment (Signalkontakte)

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

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 | 30 V |
| Typical motor current for locking | 0.2 A |
| Reverse current of the motor | max. 1 A |
| Max. dwell time with reverse current | 1000 ms |
| 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 |
| Cable length | 0.5 m |
| Cable structure | 4 x 0.5 mm ² |

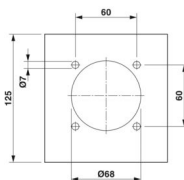
EV-T2M3SE12-3AC20A-0,7M2,5E14 - Infrastructure charging socket



1627985

<https://www.phoenixcontact.com/us/products/1627985>

Dimensions

| | |
|---------------------|---|
| Dimensional drawing |  |
| Max. wall thickness | max. 50.00 mm (Rear panel mounting, normative maximum specification for infrastructure plug) max. 22.00 mm (Rear panel mounting, normative maximum specification for infrastructure plug when using the protective cover (Item No. 1627635) with fastening frame (Item No. 1627637)) |
| Bore dimensions | 60 mm x 60 mm |

Material specifications

| | |
|------------------------|--------------|
| Color (Housing) | black (9005) |
| Color (Handle area) | gray (7042) |
| Color (Mating face) | black (9005) |
| Color (Protective cap) | black (9005) |
| Color (Cable) | black (9005) |

Cable/line

| | |
|-----------------|--|
| Cable length | 0.7 m (AC cables) 0.5 m (Locking actuator cables) |
| Cable structure | 5 x 2.5 mm ² + 2 x 0.5 mm ² |

Mechanical properties

Mechanical data

| | |
|-----------------------------|---------------------|
| Insertion/withdrawal cycles | > 10000 |
| Insertion force | < 100 N (Optimized) |
| Withdrawal force | < 100 N (Optimized) |

Environmental and real-life conditions

Ambient conditions

| | |
|---|--------------------------|
| Ambient temperature (operation) | -30 °C ... 50 °C |
| Ambient temperature (storage/transport) | -40 °C ... 80 °C |
| Altitude | 5000 m (above sea level) |

Standards and regulations

Standards

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

EV-T2M3SE12-3AC20A-0,7M2,5E14 - Infrastructure charging socket



1627985

<https://www.phoenixcontact.com/us/products/1627985>

Mounting

| | |
|--|---|
| Mounting type Infrastructure charging socket | Rear panel mounting (0 to 90 degree frontal inclination possible) |
| Mounting type Protective cover | front (available separately) |
| Mounting hole diameter | 7.00 mm (ø) |

EV-T2M3SE12-3AC20A-0,7M2,5E14 - Infrastructure charging socket

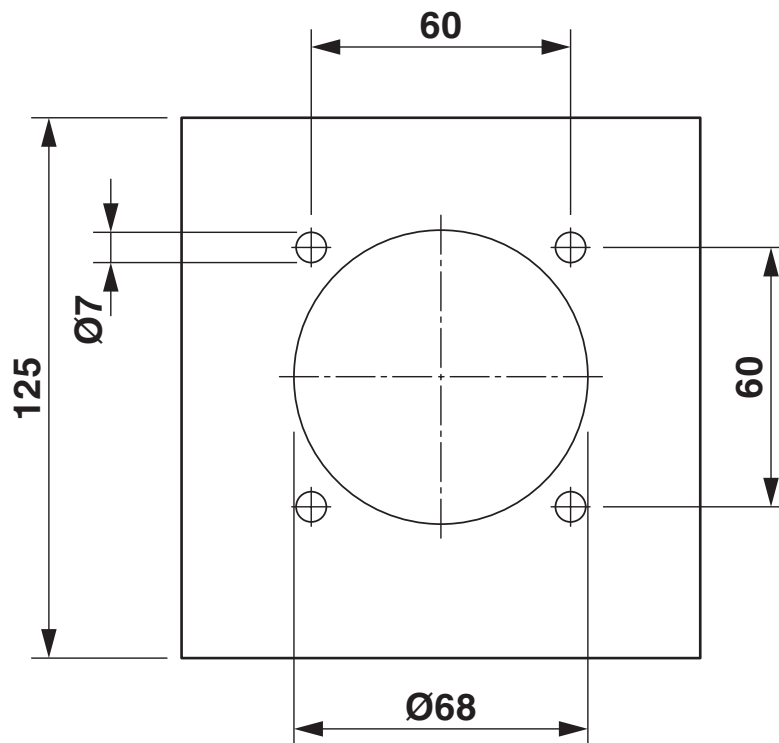


1627985

<https://www.phoenixcontact.com/us/products/1627985>

Drawings

Dimensional drawing



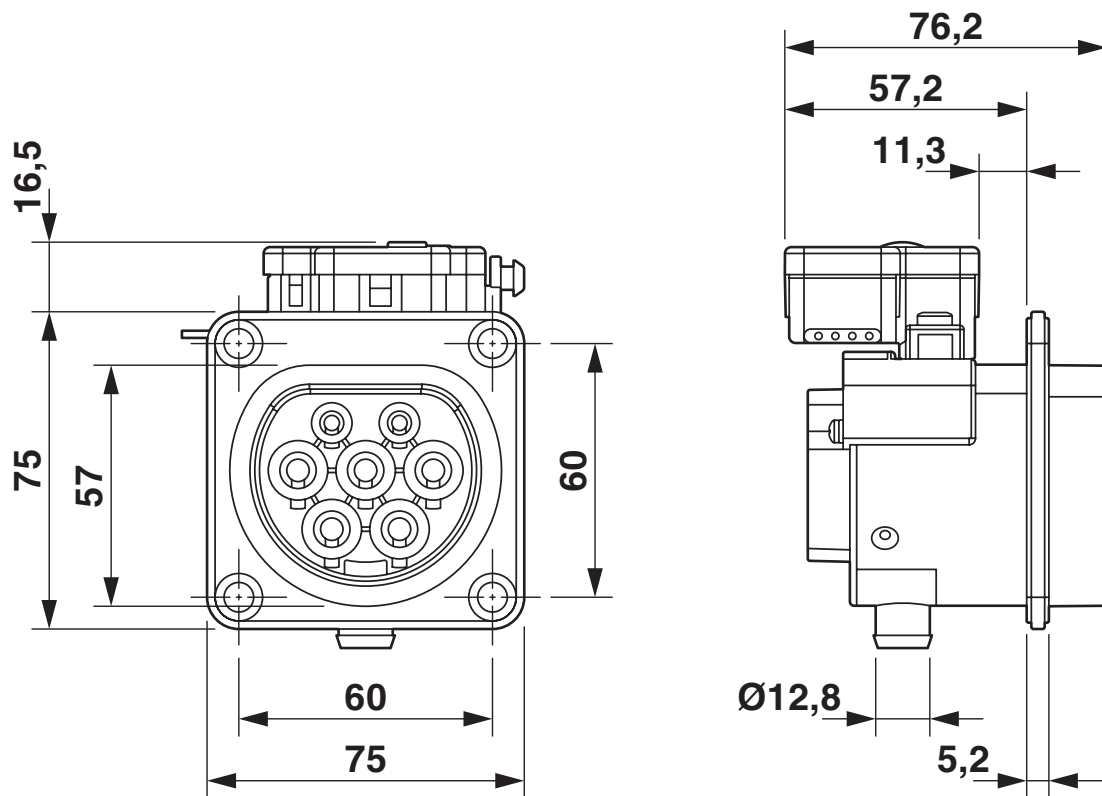
Hole image

EV-T2M3SE12-3AC20A-0,7M2,5E14 - Infrastructure charging socket

1627985

<https://www.phoenixcontact.com/us/products/1627985>

Dimensional drawing



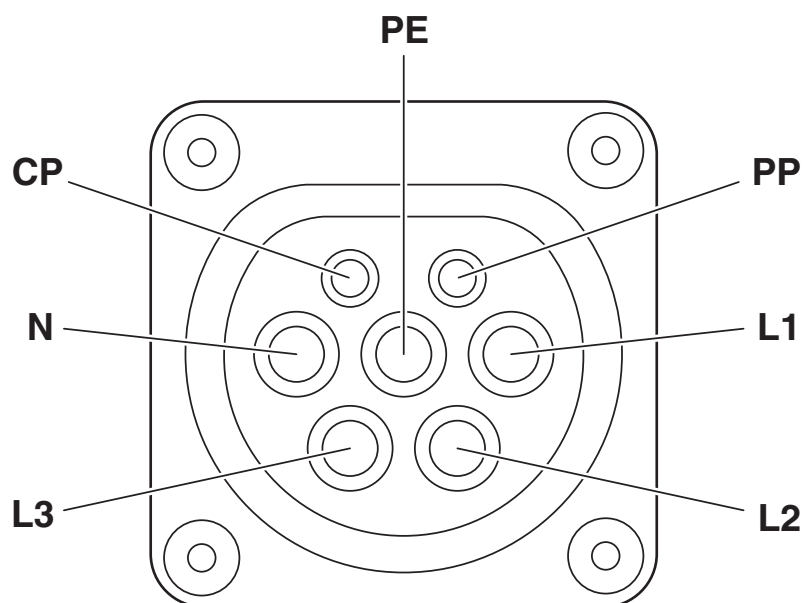
Dimensional drawing

EV-T2M3SE12-3AC20A-0,7M2,5E14 - Infrastructure charging socket

1627985

<https://www.phoenixcontact.com/us/products/1627985>

Connection diagram



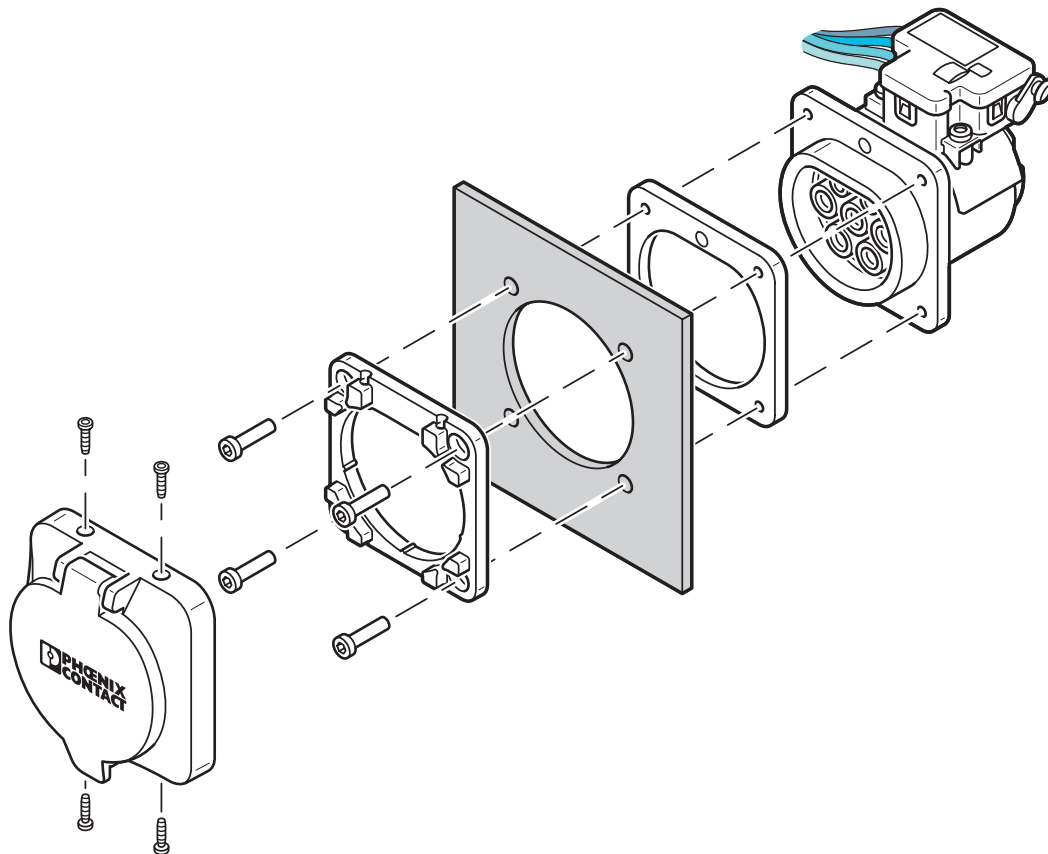
Pin assignment of infrastructure charging socket

EV-T2M3SE12-3AC20A-0,7M2,5E14 - Infrastructure charging socket

1627985

<https://www.phoenixcontact.com/us/products/1627985>

Schematic diagram



Rear mounting with front protective cover screw connection

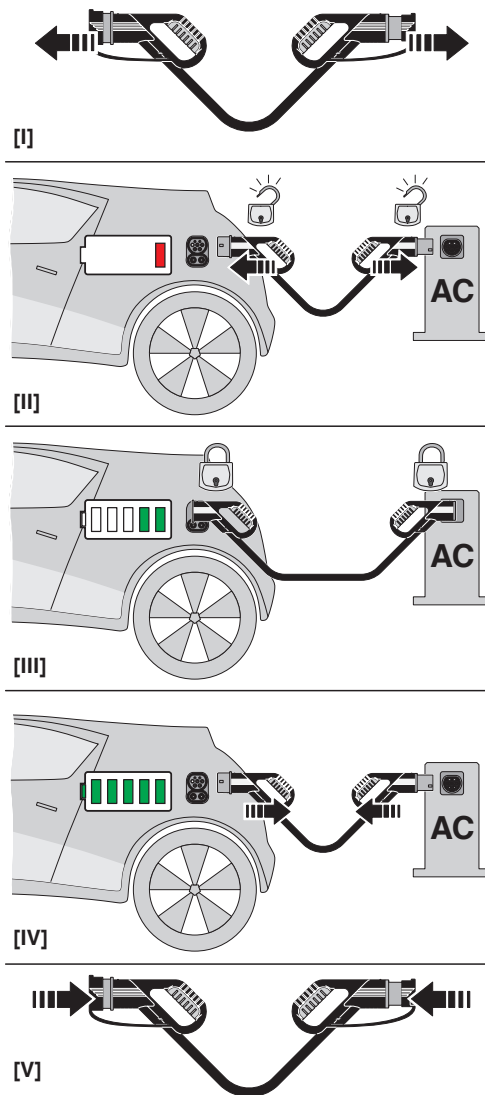
The screw connection for a protective cover (EV-T2SC-EM) from the accessories range only supports front mounting with a corresponding fixing frame (EV-T2SF-EM). The panel thickness must not exceed 5 mm. The sealing frame that is slid on from the rear must contact the housing panel flush with the flat side and must completely surround the infrastructure socket outlet.

EV-T2M3SE12-3AC20A-0,7M2,5E14 - Infrastructure charging socket

1627985

<https://www.phoenixcontact.com/us/products/1627985>

Schematic diagram

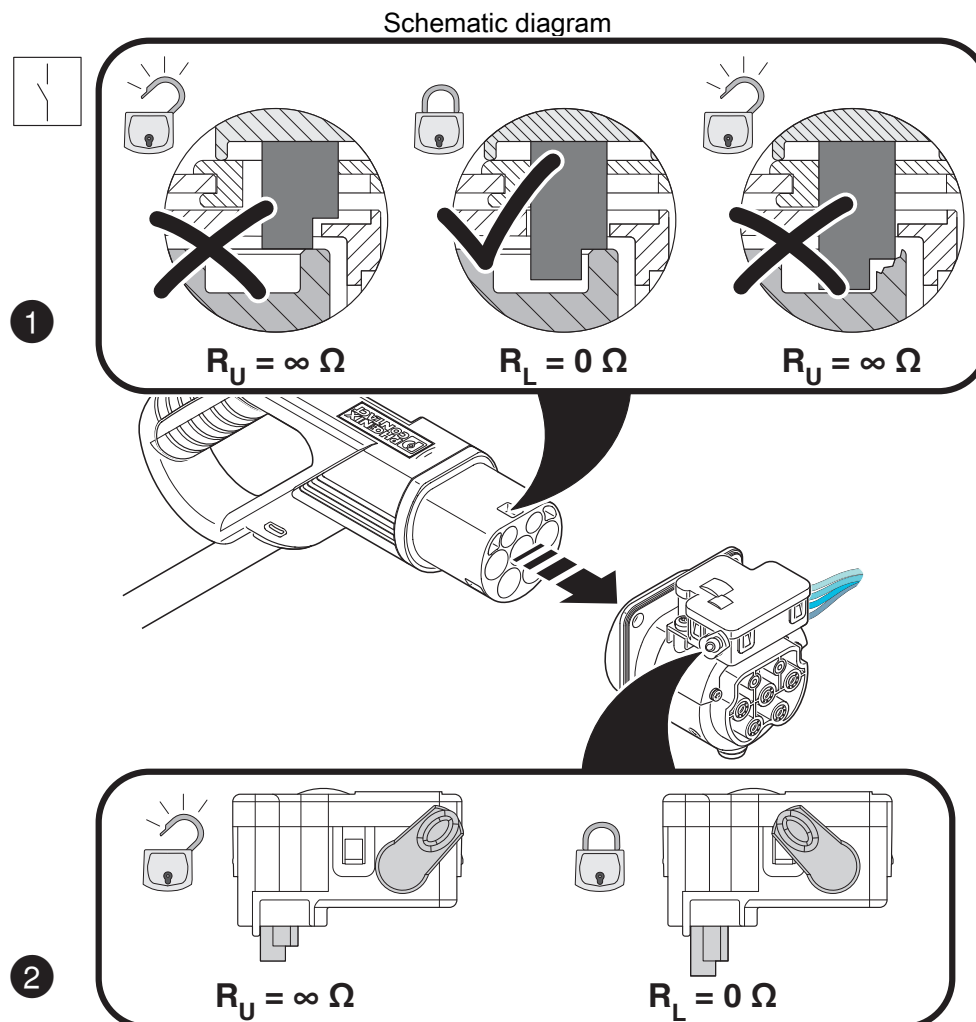


Operating instructions

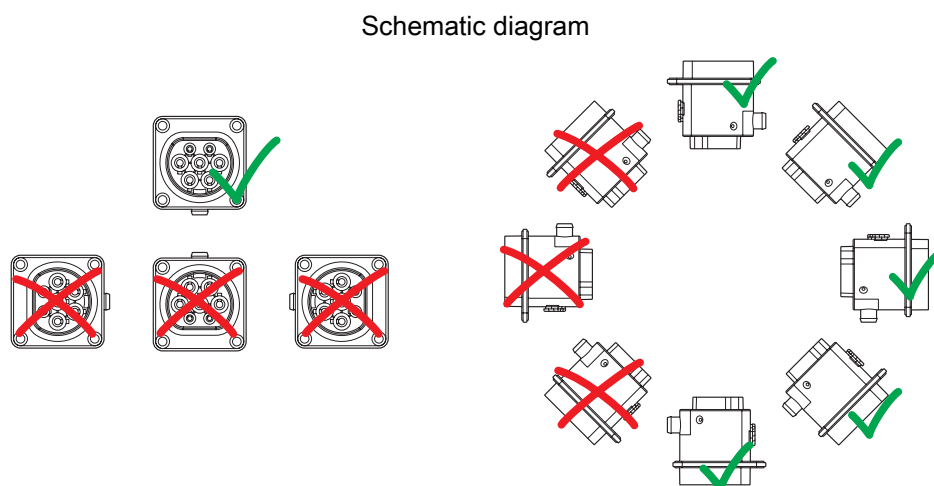
EV-T2M3SE12-3AC20A-0,7M2,5E14 - Infrastructure charging socket

1627985

<https://www.phoenixcontact.com/us/products/1627985>



Detection of the Infrastructure Plug



Installation positions

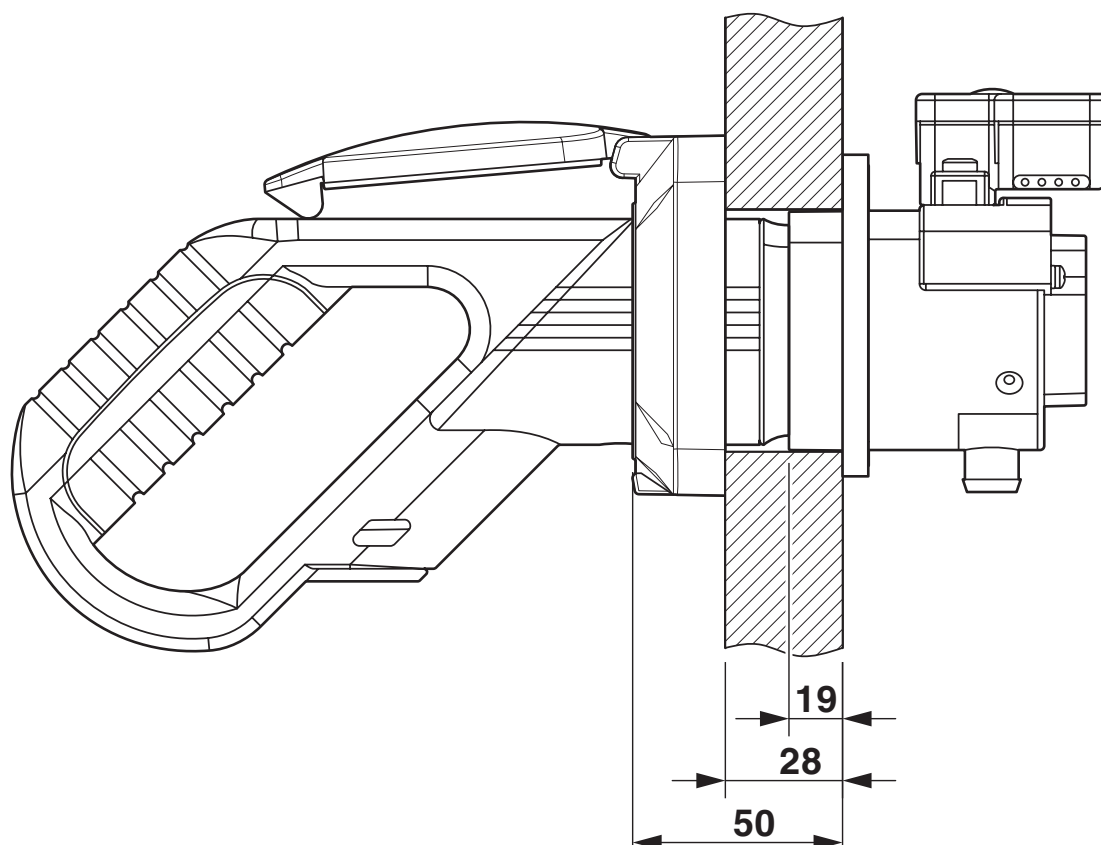
EV-T2M3SE12-3AC20A-0,7M2,5E14 - Infrastructure charging socket



1627985

<https://www.phoenixcontact.com/us/products/1627985>

Schematic diagram

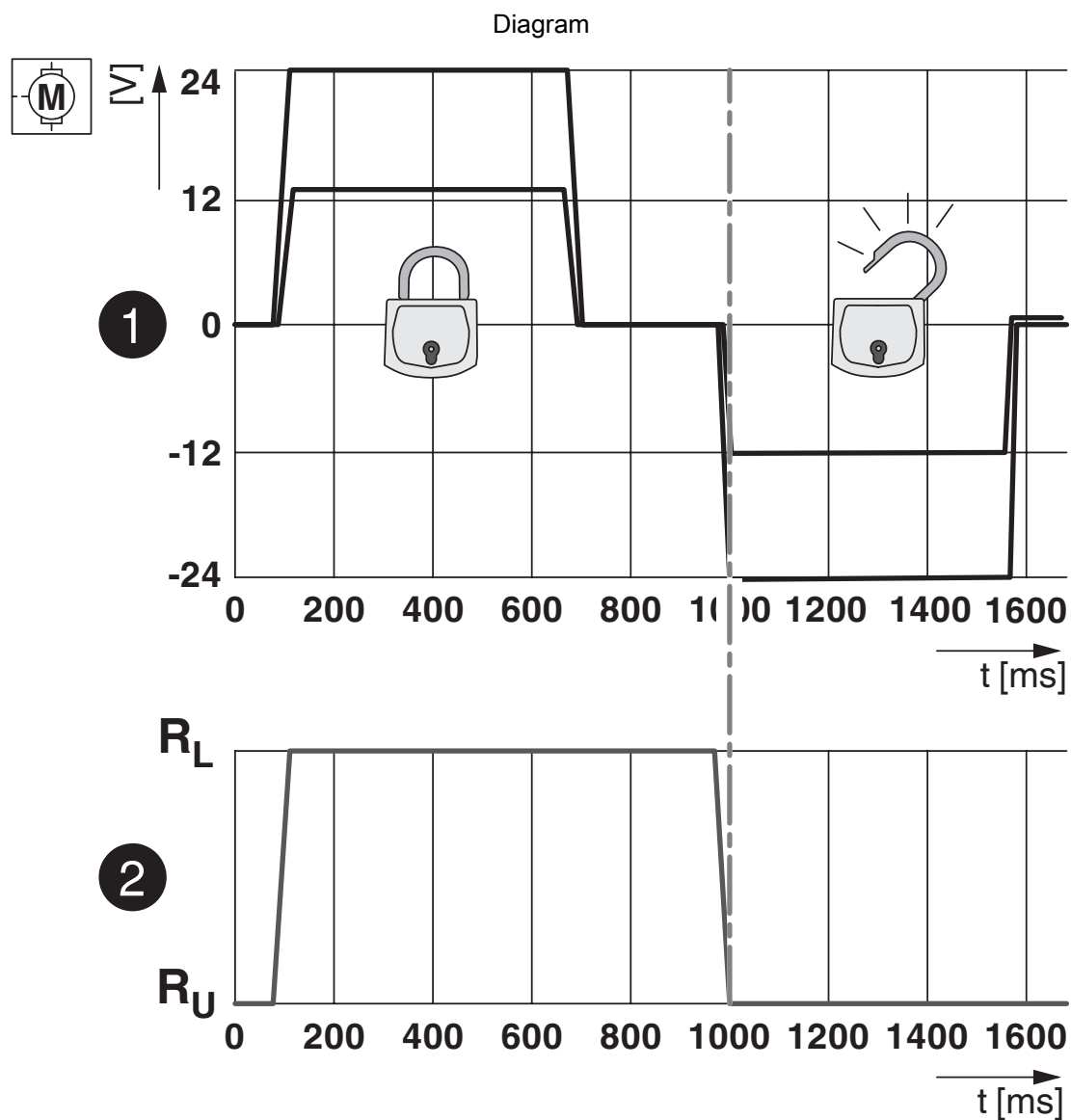


Panel thickness for rear mounting (max. 50 mm, with Phoenix Contact protective cover, max. 22 mm)

EV-T2M3SE12-3AC20A-0,7M2,5E14 - Infrastructure charging socket

1627985

<https://www.phoenixcontact.com/us/products/1627985>



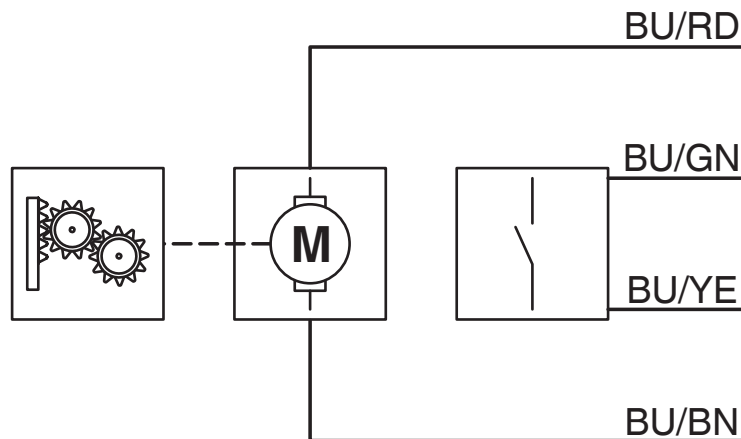
Locking states of the locking actuator

EV-T2M3SE12-3AC20A-0,7M2,5E14 - Infrastructure charging socket

1627985

<https://www.phoenixcontact.com/us/products/1627985>

Block diagram



Block diagram of the locking actuator

EV-T2M3SE12-3AC20A-0,7M2,5E14 - Infrastructure charging socket



1627985
<https://www.phoenixcontact.com/us/products/1627985>

Classifications

UNSPSC

| | |
|-------------|----------|
| UNSPSC 21.0 | 39121522 |
|-------------|----------|

EV-T2M3SE12-3AC20A-0,7M2,5E14 - Infrastructure charging socket



1627985

<https://www.phoenixcontact.com/us/products/1627985>

Environmental product compliance

EU RoHS

| | |
|---|------|
| Fulfills EU RoHS substance requirements | Yes |
| Exemption | 6(c) |

China RoHS

| | |
|--|---|
| Environment friendly use period (EFUP) | EFUP-10 |
| | 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.) | Lead(CAS: 7439-92-1) |
|-------------------------------------|----------------------|

Phoenix Contact 2025 © - 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