

## Socket Outlet - EV-T2M3SO-00-B - 1286399

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CHARX connect, Socket Outlet, rear protective cover screw connection, can be reconnected, without locking actuator, For charging electric vehicles (EV) with alternating current (AC), Compatible with infrastructure charging plugs, Type 2, IEC 62196-2, 32 A / 480 V (AC), without cable, Rear panel mounting, Basic, "PHOENIX CONTACT" logo, NOTE This product version does not include a locking actuator.

### Product Description


Infrastructure Socket Outlet 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

- ✓ Protected against overheating with precise temperature measurement
- ✓ Flexible mounting and easy maintenance with plug-in cables
- ✓ Available with your logo on request – for consistent branding of your charging station
- ✓ Waterproof and dirtproof due to fully molded contacts
- ✓ Developed and produced in accordance with the IATF 16949 automotive standard and ISO 9001
- ✓ Uniform, space-saving installation space



### Key Commercial Data

Packing unit	1 pc
GTIN	 4 063151 511371
GTIN	4063151511371
Custom tariff number	85366990
Country of origin	Germany

### Technical data

#### Product definition

Type	rear protective cover screw connection
	can be reconnected

# Socket Outlet - EV-T2M3SO-00-B - 1286399

## Technical data

### Product definition

	without locking actuator
Application	For charging electric vehicles (EV) with alternating current (AC)
	Compatible with infrastructure charging plugs
Affixed logo	"PHOENIX CONTACT" logo
Design	Basic
Standards/regulations	IEC 62196-2
Charging standard	Type 2
Charging mode	Mode 3, Case B
Note	NOTE This product version does not include a locking actuator.
Note on the connection method	Connection via spade connector, separable

### Dimensions

Width	75 mm
Depth	87.95 mm (with attachable cap for strain relief and touch protection, see accessories)
	73.35 mm (without attachable cap for strain relief and touch protection, see accessories)
Bore dimensions	60 mm x 60 mm
Type of conductor	without cable

### Ambient conditions

Ambient temperature (operation)	-30 °C ... 50 °C
Ambient temperature (storage/transport)	-40 °C ... 80 °C
Max. altitude	5000 m (above sea level)
Degree of protection	IP44 (plugged in)
	IP54 (with protective cover, see accessories)

### Electrical properties

Charging power (nominal operation)	22 kW
Type of charging current	AC 3-phase
Number of phases	3
Number of power contacts	5 (L1, L2, L3, N, PE)
Rated current of power contacts	32 A
Rated voltage for power contacts	480 V AC
Number of signal contacts	2 (CP, PP)
Rated current for signal contacts	2 A
Rated voltage for signal contacts	30 V AC
Type of signal transmission	Pulse width modulation
Note on the connection method	Connection via spade connector, separable

## Socket Outlet - EV-T2M3SO-00-B - 1286399

### Technical data

#### Mechanical properties

Insertion/withdrawal cycles	> 10000
Insertion force	< 100 N
Withdrawal force	< 100 N

#### Mounting

Possible mounting positions	Rear panel mounting
Restrictions to mounting position	Only 0 to 90 degree frontal inclination possible, see figure
Mounting position of the locking actuator	Not pre-assembled, top center mounting possible
Screw connection of a protective cover	Only rear mounting possible
Max. wall thickness	max. 50 mm (Rear panel mounting, normative maximum specification for infrastructure plug)
	max. 28 mm (Rear mounting, normative maximum specification for infrastructure plug when using protective cover 1405217)
Mounting hole diameter	7.00 mm (ø)
Screws included in the scope of delivery	none

#### Design

Design line	Basic
Housing color	black

#### Material

Material	Plastic
Material surface of contacts	Ag

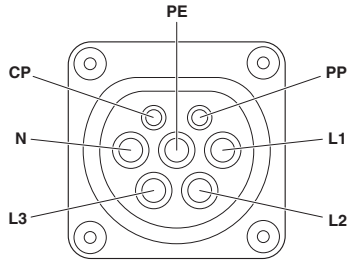
#### Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 10;
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

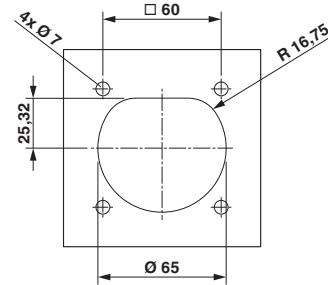
### Drawings

# Socket Outlet - EV-T2M3SO-00-B - 1286399

Connection diagram



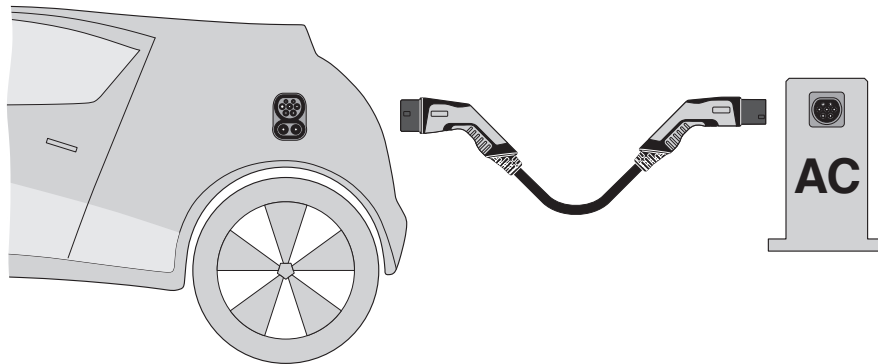
Schematic diagram



Pin assignment of Infrastructure Socket Outlet

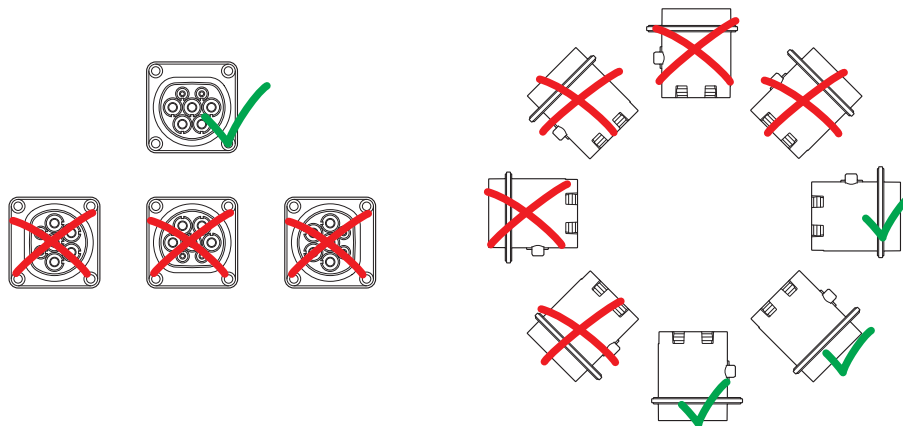
Hole image

Schematic diagram



Operating instructions

Schematic diagram



Installation positions

# Socket Outlet - EV-T2M3SO-00-B - 1286399

## Classifications

eCl@ss

eCl@ss 10.0.1	27144706
eCl@ss 11.0	27144706
eCl@ss 9.0	27144706

ETIM

ETIM 7.0	EC002898
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## Accessories

Accessories

AC charging controller

AC charging controller - CHARX SEC-1000 - 1139034



CHARX control modular, AC charging controller according to IEC 61851-1. Configurable charging controller. operating mode Stand-alone or client. interface: CHARX control modular system bus. Connectable peripheral devices: Energy meter, RFID, DC residual current detection. DIN rail mounting

AC charging controller - CHARX SEC-3000 - 1139022



CHARX control modular, AC charging controller according to IEC 61851-1. Embedded Linux system. operating mode Stand-alone, server, or client. interface: Ethernet (2x), CHARX control modular system bus, MICRO-USB type C. communication protocol: OCPP 1.6J, Modbus/TCP, MQTT. Connectable peripheral devices: Energy meter, RFID, DC residual current detection. DIN rail mounting

AC charging controller - CHARX SEC-3050 - 1139018



CHARX control modular, AC charging controller according to IEC 61851-1, ISO/IEC 15118. Embedded Linux system. operating mode Stand-alone, server, or client. interface: Ethernet (2x), CHARX control modular system bus, MICRO-USB type C. communication protocol: OCPP 1.6J, Modbus/TCP, MQTT. Connectable peripheral devices: Energy meter, RFID, DC residual current detection. DIN rail mounting

## Socket Outlet - EV-T2M3SO-00-B - 1286399

### Accessories

#### AC charging controller - CHARX SEC-3100 - 1139012



CHARX control modular, AC charging controller according to IEC 61851-1. Embedded Linux system. operating mode Stand-alone, server, or client. interface: Ethernet (2x), Cellular communication (4G/2G), CHARX control modular system bus, MICRO-USB type C. communication protocol: OCPP 1.6J, Modbus/TCP, MQTT. Connectable peripheral devices: Energy meter, RFID, DC residual current detection. DIN rail mounting

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#### AC charging controller - CHARX SEC-3150 - 1138965



CHARX control modular, AC charging controller according to IEC 61851-1, ISO/IEC 15118. Embedded Linux system. operating mode Stand-alone, server, or client. interface: Ethernet (2x), Cellular communication (4G/2G), CHARX control modular system bus, MICRO-USB type C. communication protocol: OCPP 1.6J, Modbus/TCP, MQTT. Connectable peripheral devices: Energy meter, RFID, DC residual current detection. DIN rail mounting

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#### AC charging controller - EM-CP-PP-ETH - 2902802



EV charge control is used to charge electrical vehicles on the 3-phase AC mains power supply according to IEC 61851-1 Mode 3. All necessary control functions are integrated. Additional functions are available for various charging applications.

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#### Adhesive label

##### Label - EV-LABEL-C-SO - 1315521



CHARX connect, Label, for AC charging cables and infrastructure charging sockets, DIN EN 17186, Marking C for AC type 2 infrastructure charging plugs and type 2 infrastructure charging sockets

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#### Arrester combination

##### Lightning/surge arrester type 1/2 - VAL-EV-T1/T2 264/12.5/3+1 - 1180149



CHARX protect: pluggable lightning current arrester/surge protective device, in accordance with Type 1/2 / Class I/II, for 3-phase power supply networks with separate N and PE (5-conductor system: L1, L2, L3, N, PE). Specifically designed for use in e-mobility.

## Socket Outlet - EV-T2M3SO-00-B - 1286399

### Accessories

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#### Lightning/surge arrester type 1/2 - VAL-EV-T1/T2 264/12.5/3+1-R - 1180150



CHARX protect: pluggable lightning current arrester/surge protective device, in accordance with Type 1/2 / Class I/II, for 3-phase power supply networks with separate N and PE (5-conductor system: L1, L2, L3, N, PE), with remote indication contact. Specifically designed for use in e-mobility.

#### Type 2 surge arrester - VAL-EV-T2 280/3+1 - 1180144



CHARX protect: pluggable surge protective device, in accordance with Type 2 / Class II, for 3-phase power supply networks with separate N and PE (5-conductor system: L1, L2, L3, N, PE). Specifically designed for use in e-mobility.

#### Type 2 surge arrester - VAL-EV-T2 280/3+1-R - 1180145



CHARX protect: pluggable surge protective device, in accordance with Type 2 / Class II, for 3-phase power supply networks with separate N and PE (5-conductor system: L1, L2, L3, N, PE), with remote indication contact. Specifically designed for use in e-mobility.

### Assembly tool

#### Tool - EV-T2M3SO-CAP-REMOVER - 1286836

CHARX connect, tool for opening the optional cap for attachment to the back of the Generation 2.0 Basic infrastructure charging socket with functions for strain relief and touch protection.

### Cable set

#### Cable set - EV-T2M3SOW-1AC32A-0,3M6,0E - 1164343



CHARX connect, Cable set, Cables with slip-on sleeves on one end, Only for connection to generation 2 infrastructure charging sockets from Phoenix Contact, Type 2, IEC 62196-2, 32 A / 250 V (AC), Single wires, length: 0.3 m, Generation 2

## Socket Outlet - EV-T2M3SO-00-B - 1286399

### Accessories

#### Cable set - EV-T2M3SOW-3AC20A-0,3M2,5E - 1164355



CHARX connect, Cable set, Cables with slip-on sleeves on one end, Only for connection to generation 2 infrastructure charging sockets from Phoenix Contact, Type 2, IEC 62196-2, 20 A / 480 V (AC), Single wires, length: 0.3 m, Generation 2

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#### Cable set - EV-T2M3SOW-3AC32A-0,3M6,0E - 1164362



CHARX connect, Cable set, Cables with slip-on sleeves on one end, Only for connection to generation 2 infrastructure charging sockets from Phoenix Contact, Type 2, IEC 62196-2, 32 A / 480 V (AC), Single wires, length: 0.3 m, Generation 2

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#### Cable set - EV-T2M3SOW-1AC32A-0,7M6,0E - 1164344



CHARX connect, Cable set, Cables with slip-on sleeves on one end, Only for connection to generation 2 infrastructure charging sockets from Phoenix Contact, Type 2, IEC 62196-2, 32 A / 250 V (AC), Single wires, length: 0.7 m, Generation 2

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#### Cable set - EV-T2M3SOW-3AC20A-0,7M2,5E - 1164361



CHARX connect, Cable set, Cables with slip-on sleeves on one end, Only for connection to generation 2 infrastructure charging sockets from Phoenix Contact, Type 2, IEC 62196-2, 20 A / 480 V (AC), Single wires, length: 0.7 m, Generation 2

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#### Cable set - EV-T2M3SOW-3AC32A-0,7M6,0E - 1164365



CHARX connect, Cable set, Cables with slip-on sleeves on one end, Only for connection to generation 2 infrastructure charging sockets from Phoenix Contact, Type 2, IEC 62196-2, 32 A / 480 V (AC), Single wires, length: 0.7 m, Generation 2

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### Protective cover for Socket Outlet

## Socket Outlet - EV-T2M3SO-00-B - 1286399

### Accessories

Protective covers - EV-T2SOC-B - 1164293



CHARX connect, Protective covers, self-closing, rear protective cover screw connection, for attaching to infrastructure charging sockets, Type 2, Front mounting, screwed on the back, M5 thread, Basic, Embossed PHOENIX CONTACT logo

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Strain relief - EV-T2M3SO-CAP - 1202424



CHARX connect, Strain relief, Touch protection, For generation 2.0 infrastructure charging socket, For plugging onto the rear of the infrastructure charging socket, Type 2, IEC 62196-2, Generation 2

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## Socket Outlet - EV-T2M3SO12-3P-B - 1164309

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CHARX connect, Socket Outlet, rear protective cover screw connection, can be reconnected, For charging electric vehicles (EV) with alternating current (AC), Compatible with infrastructure charging plugs, Type 2, IEC 62196-2, 32 A / 480 V (AC), without cable, 3-position, Rear panel mounting, M5 thread, Basic, "PHOENIX CONTACT" logo


### Product Description

Infrastructure Socket Outlet 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

- ✓ Protected against overheating with precise temperature measurement
- ✓ Flexible mounting and easy maintenance with plug-in cables
- ✓ Available with your logo on request – for consistent branding of your charging station
- ✓ Waterproof and dirtproof due to fully molded contacts
- ✓ Developed and produced in accordance with the IATF 16949 automotive standard and ISO 9001
- ✓ Uniform, space-saving installation space

### Key Commercial Data

Packing unit	1
GTIN	 4 063151 177621
GTIN	4063151177621
Custom tariff number	85366990

### Technical data

#### Product definition

Type	rear protective cover screw connection
	can be reconnected
Application	For charging electric vehicles (EV) with alternating current (AC)
	Compatible with infrastructure charging plugs
Affixed logo	"PHOENIX CONTACT" logo
Design	Basic
Standards/regulations	IEC 62196-2

# Socket Outlet - EV-T2M3SO12-3P-B - 1164309

## Technical data

### Product definition

Charging standard	Type 2
Charging mode	Mode 3, Case B
Note on the connection method	Connection via spade connector, separable

### Dimensions

Height	112.54 mm
Width	75 mm
Depth	87.95 mm (with attachable cap for strain relief and touch protection, see accessories) 73.35 mm (without attachable cap for strain relief and touch protection, see accessories)
Bore dimensions	60 mm x 60 mm
Type of conductor	without cable

### Ambient conditions

Ambient temperature (operation)	-30 °C ... 50 °C
Ambient temperature (storage/transport)	-40 °C ... 80 °C
Max. altitude	5000 m (above sea level)
Degree of protection	IP44 (plugged in) IP54 (with protective cover, see accessories)

### Electrical properties

Charging power (nominal operation)	22 kW
Type of charging current	AC 3-phase
Number of phases	3
Number of power contacts	5 (L1, L2, L3, N, PE)
Rated current of power contacts	32 A
Rated voltage for power contacts	480 V AC
Number of signal contacts	2 (CP, PP)
Rated current for signal contacts	2 A
Rated voltage for signal contacts	30 V AC
Type of signal transmission	Pulse width modulation
Note on the connection method	Connection via spade connector, separable

### Mechanical properties

Insertion/withdrawal cycles	> 10000
Insertion force	< 100 N
Withdrawal force	< 100 N

### Mounting

Possible mounting positions	Rear panel mounting
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# Socket Outlet - EV-T2M3SO12-3P-B - 1164309

## Technical data

### Mounting

Restrictions to mounting position	Only 0 to 90 degree frontal inclination possible, see figure
Mounting position of the locking actuator	Top center position
Screw connection of a protective cover	Only rear mounting possible
Max. wall thickness	max. 50 mm (Rear panel mounting, normative maximum specification for infrastructure plug)
	max. 28 mm (Rear mounting, normative maximum specification for infrastructure plug when using protective cover 1405217)
Mounting hole diameter	7.00 mm (ø)
Required mounting screws	M5 thread
Screws included in the scope of delivery	none

### Design

Design line	Basic
Housing color	black

### Material

Material	Plastic
Material surface of contacts	Ag

### Locking

Locking type	Locking in the inserted state with a locking mechanism
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### Locking actuator

Number of positions of the connectors	3
Operating voltage	12 V (Typical power supply at the motor)
Possible power supply range at the motor	9 V ... 15.5 V
Operating current	< 1.8 A
Typical motor current for locking	250 mA Average run current
Reverse current of the motor	max. 2.4 A (Stall current)
Max. dwell time with reverse current	4 s
Recommended triggering time	200 ms ... 10 s (t <sub>on</sub> , typical)
Pause time after entry or exit path	8x (t <sub>on</sub> , typical)
Service life insertion cycles	> 10000 load cycles
Ambient temperature (operation)	-30 °C ... 50 °C
Cable length	0.5 m
Cable structure	3 x 0.5 mm <sup>2</sup>
Lock recognition	available
Mechanical emergency release	available
Lock setting	LOCK (Lever in horizontal position)
	UNLOCK (Lever in vertical position)

# Socket Outlet - EV-T2M3SO12-3P-B - 1164309

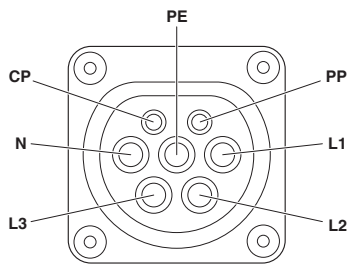
## Technical data

### Environmental Product Compliance

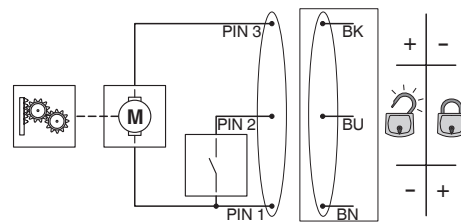
REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 10;
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

## Drawings

Connection diagram



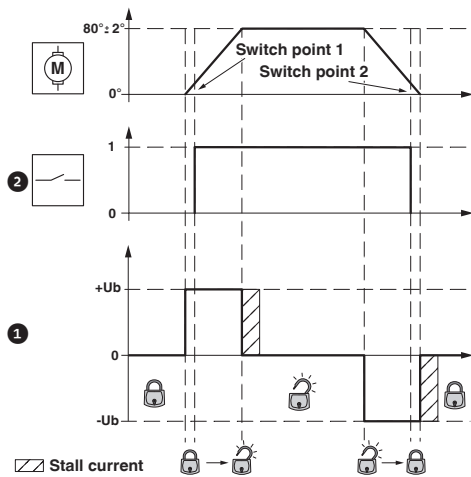
Block diagram



Block diagram of the locking actuator

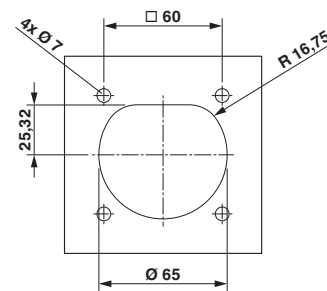
### Pin assignment of Infrastructure Socket Outlet

Diagram



Locking states of the locking actuator

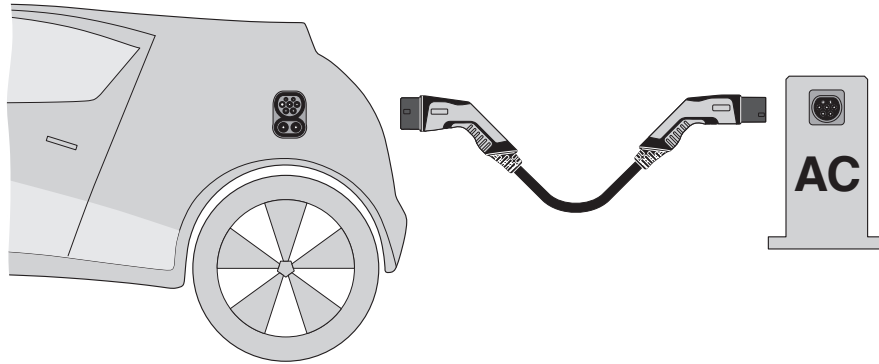
Schematic diagram



Hole image

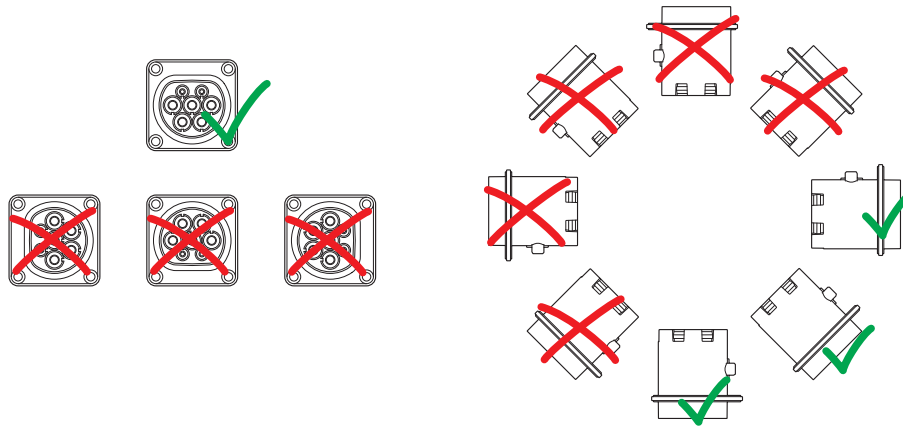
# Socket Outlet - EV-T2M3SO12-3P-B - 1164309

Schematic diagram



## Operating instructions

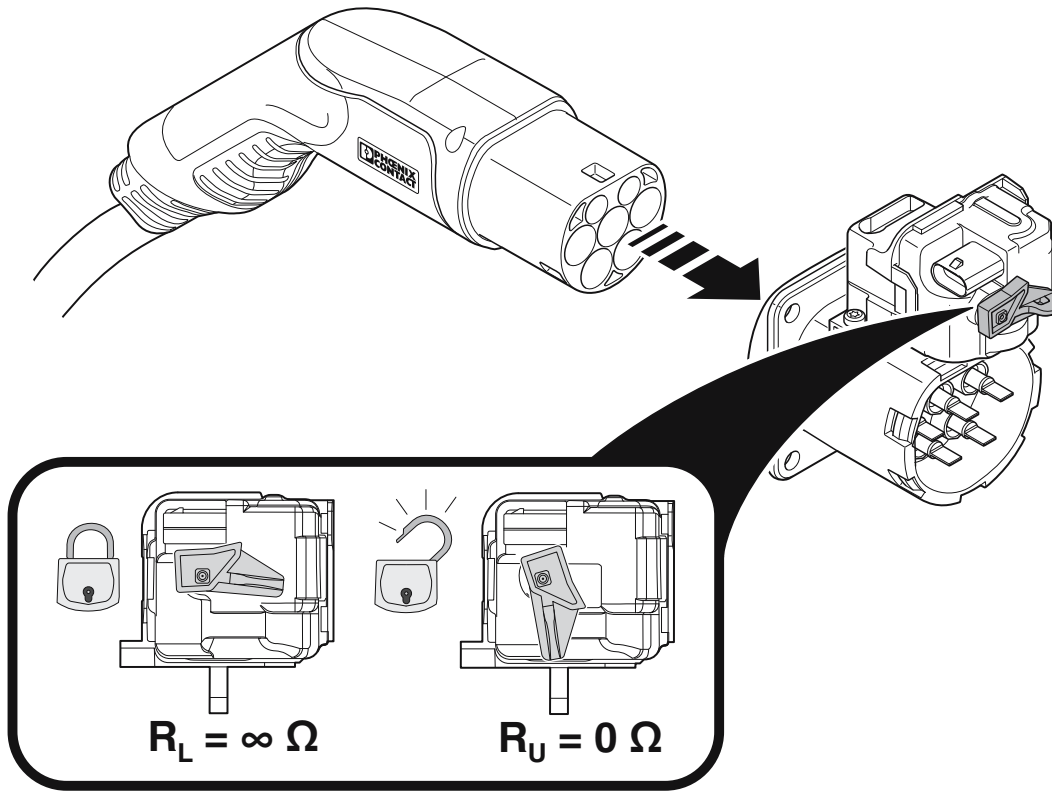
Schematic diagram



## Installation positions

# Socket Outlet - EV-T2M3SO12-3P-B - 1164309

Schematic diagram



Position of the emergency unlocking lever on the locking actuator

# Socket Outlet - EV-T2M3SO12-3P-B - 1164309

## Classifications

### eCl@ss

eCl@ss 10.0.1	27144706
eCl@ss 11.0	27144706
eCl@ss 9.0	27144706

### ETIM

ETIM 7.0	EC002898
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## Approvals

### Approvals

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#### Approvals


VDE Gutachten mit Fertigungsüberwachung

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#### Ex Approvals

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### Approval details

VDE Gutachten mit Fertigungsüberwachung		<a href="http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx">http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx</a>	40053862
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## Accessories

### Accessories

#### AC charging controller

#### AC charging controller - CHARX SEC-1000 - 1139034



CHARX control modular, AC charging controller according to IEC 61851-1. Configurable charging controller. operating mode Stand-alone or client. interface: CHARX control modular system bus. Connectable peripheral devices: Energy meter, RFID, DC residual current detection. DIN rail mounting

## Socket Outlet - EV-T2M3SO12-3P-B - 1164309

### Accessories

#### AC charging controller - CHARX SEC-3000 - 1139022



CHARX control modular, AC charging controller according to IEC 61851-1. Embedded Linux system. operating mode Stand-alone, server, or client. interface: Ethernet (2x), CHARX control modular system bus, MICRO-USB type C. communication protocol: OCPP 1.6J, Modbus/TCP, MQTT. Connectable peripheral devices: Energy meter, RFID, DC residual current detection. DIN rail mounting

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#### AC charging controller - CHARX SEC-3050 - 1139018



CHARX control modular, AC charging controller according to IEC 61851-1, ISO/IEC 15118. Embedded Linux system. operating mode Stand-alone, server, or client. interface: Ethernet (2x), CHARX control modular system bus, MICRO-USB type C. communication protocol: OCPP 1.6J, Modbus/TCP, MQTT. Connectable peripheral devices: Energy meter, RFID, DC residual current detection. DIN rail mounting

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#### AC charging controller - CHARX SEC-3100 - 1139012



CHARX control modular, AC charging controller according to IEC 61851-1. Embedded Linux system. operating mode Stand-alone, server, or client. interface: Ethernet (2x), Cellular communication (4G/2G), CHARX control modular system bus, MICRO-USB type C. communication protocol: OCPP 1.6J, Modbus/TCP, MQTT. Connectable peripheral devices: Energy meter, RFID, DC residual current detection. DIN rail mounting

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#### AC charging controller - CHARX SEC-3150 - 1138965



CHARX control modular, AC charging controller according to IEC 61851-1, ISO/IEC 15118. Embedded Linux system. operating mode Stand-alone, server, or client. interface: Ethernet (2x), Cellular communication (4G/2G), CHARX control modular system bus, MICRO-USB type C. communication protocol: OCPP 1.6J, Modbus/TCP, MQTT. Connectable peripheral devices: Energy meter, RFID, DC residual current detection. DIN rail mounting

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#### AC charging controller - EM-CP-PP-ETH - 2902802



EV charge control is used to charge electrical vehicles on the 3-phase AC mains power supply according to IEC 61851-1 Mode 3. All necessary control functions are integrated. Additional functions are available for various charging applications.

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### Adhesive label

## Socket Outlet - EV-T2M3SO12-3P-B - 1164309

### Accessories

Label - EV-LABEL-C-SO - 1315521



CHARX connect, Label, for AC charging cables and infrastructure charging sockets, DIN EN 17186, Marking C for AC type 2 infrastructure charging plugs and type 2 infrastructure charging sockets

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### Arrester combination

Lightning/surge arrester type 1/2 - VAL-EV-T1/T2 264/12.5/3+1 - 1180149



CHARX protect: pluggable lightning current arrester/surge protective device, in accordance with Type 1/2 / Class I/II, for 3-phase power supply networks with separate N and PE (5-conductor system: L1, L2, L3, N, PE). Specifically designed for use in e-mobility.

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Lightning/surge arrester type 1/2 - VAL-EV-T1/T2 264/12.5/3+1-R - 1180150



CHARX protect: pluggable lightning current arrester/surge protective device, in accordance with Type 1/2 / Class I/II, for 3-phase power supply networks with separate N and PE (5-conductor system: L1, L2, L3, N, PE), with remote indication contact. Specifically designed for use in e-mobility.

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Type 2 surge arrester - VAL-EV-T2 280/3+1 - 1180144



CHARX protect: pluggable surge protective device, in accordance with Type 2 / Class II, for 3-phase power supply networks with separate N and PE (5-conductor system: L1, L2, L3, N, PE). Specifically designed for use in e-mobility.

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Type 2 surge arrester - VAL-EV-T2 280/3+1-R - 1180145



CHARX protect: pluggable surge protective device, in accordance with Type 2 / Class II, for 3-phase power supply networks with separate N and PE (5-conductor system: L1, L2, L3, N, PE), with remote indication contact. Specifically designed for use in e-mobility.

## Socket Outlet - EV-T2M3SO12-3P-B - 1164309

### Accessories

#### Assembly tool

##### Tool - EV-T2M3SO-CAP-REMOVER - 1286836

CHARX connect, tool for opening the optional cap for attachment to the back of the Generation 2.0 Basic infrastructure charging socket with functions for strain relief and touch protection.

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#### Cable set

##### Cable set - EV-T2M3SOW-1AC32A-0,3M6,0E - 1164343



CHARX connect, Cable set, Cables with slip-on sleeves on one end, Only for connection to generation 2 infrastructure charging sockets from Phoenix Contact, Type 2, IEC 62196-2, 32 A / 250 V (AC), Single wires, length: 0.3 m, Generation 2

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##### Cable set - EV-T2M3SOW-3AC20A-0,3M2,5E - 1164355



CHARX connect, Cable set, Cables with slip-on sleeves on one end, Only for connection to generation 2 infrastructure charging sockets from Phoenix Contact, Type 2, IEC 62196-2, 20 A / 480 V (AC), Single wires, length: 0.3 m, Generation 2

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##### Cable set - EV-T2M3SOW-3AC32A-0,3M6,0E - 1164362



CHARX connect, Cable set, Cables with slip-on sleeves on one end, Only for connection to generation 2 infrastructure charging sockets from Phoenix Contact, Type 2, IEC 62196-2, 32 A / 480 V (AC), Single wires, length: 0.3 m, Generation 2

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##### Cable set - EV-T2M3SOW-1AC32A-0,7M6,0E - 1164344



CHARX connect, Cable set, Cables with slip-on sleeves on one end, Only for connection to generation 2 infrastructure charging sockets from Phoenix Contact, Type 2, IEC 62196-2, 32 A / 250 V (AC), Single wires, length: 0.7 m, Generation 2

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## Socket Outlet - EV-T2M3SO12-3P-B - 1164309

### Accessories

Cable set - EV-T2M3SOW-3AC20A-0,7M2,5E - 1164361



CHARX connect, Cable set, Cables with slip-on sleeves on one end, Only for connection to generation 2 infrastructure charging sockets from Phoenix Contact, Type 2, IEC 62196-2, 20 A / 480 V (AC), Single wires, length: 0.7 m, Generation 2

Cable set - EV-T2M3SOW-3AC32A-0,7M6,0E - 1164365



CHARX connect, Cable set, Cables with slip-on sleeves on one end, Only for connection to generation 2 infrastructure charging sockets from Phoenix Contact, Type 2, IEC 62196-2, 32 A / 480 V (AC), Single wires, length: 0.7 m, Generation 2

### Infrastructure socket outlet

Connector - EV-T2M3SL12-CONNECTOR - 1132718



CHARX connect, Connector, For controlling a 3-pos. locking actuator of an infrastructure charging socket, Single wires

### Protective cover for Socket Outlet

Protective covers - EV-T2SOC-B - 1164293



CHARX connect, Protective covers, self-closing, rear protective cover screw connection, for attaching to infrastructure charging sockets, Type 2, Front mounting, screwed on the back, M5 thread, Basic, Embossed PHOENIX CONTACT logo

Strain relief - EV-T2M3SO-CAP - 1202424



CHARX connect, Strain relief, Touch protection, For generation 2.0 infrastructure charging socket, For plugging onto the rear of the infrastructure charging socket, Type 2, IEC 62196-2, Generation 2

# Socket Outlet - EV-T2M3SO12-3P-B - 1164309

## Accessories

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## Socket Outlet - EV-T2M3SO12-3P-P - 1164307

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CHARX connect, Socket Outlet, rear protective cover screw connection, with temperature sensors, can be reconnected, For charging electric vehicles (EV) with alternating current (AC), Compatible with infrastructure charging plugs, Type 2, IEC 62196-2, 32 A / 480 V (AC), without cable, 3-position, Rear panel mounting, M5 thread, Premium, "PHOENIX CONTACT" logo

### Product Description


Infrastructure Socket Outlet 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

- ✓ Protected against overheating with precise temperature measurement
- ✓ Flexible mounting and easy maintenance with plug-in cables
- ✓ Available with your logo on request – for consistent branding of your charging station
- ✓ Waterproof and dirtproof due to fully molded contacts
- ✓ Developed and produced in accordance with the IATF 16949 automotive standard and ISO 9001
- ✓ Uniform, space-saving installation space



### Key Commercial Data

Packing unit	1
GTIN	 4 063151 176921
GTIN	4063151176921
Custom tariff number	85366990

### Technical data

#### Product definition

Type	rear protective cover screw connection
	with temperature sensors
	can be reconnected

# Socket Outlet - EV-T2M3SO12-3P-P - 1164307

## Technical data

### Product definition

Application	For charging electric vehicles (EV) with alternating current (AC)
	Compatible with infrastructure charging plugs
Affixed logo	"PHOENIX CONTACT" logo
Design	Premium
Standards/regulations	IEC 62196-2
Charging standard	Type 2
Charging mode	Mode 3, Case B
Note on the connection method	Connection via spade connector, separable

### Dimensions

Height	112.54 mm
Width	75 mm
Depth	87.95 mm (with attachable cap for strain relief and touch protection, see accessories)
	73.35 mm (without attachable cap for strain relief and touch protection, see accessories)
Bore dimensions	60 mm x 60 mm
Type of conductor	without cable

### Ambient conditions

Ambient temperature (operation)	-30 °C ... 50 °C
Ambient temperature (storage/transport)	-40 °C ... 80 °C
Max. altitude	5000 m (above sea level)
Degree of protection	IP44 (plugged in)
	IP54 (with protective cover, see accessories)

### Electrical properties

Charging power (nominal operation)	22 kW
Type of charging current	AC 3-phase
Number of phases	3
Number of power contacts	5 (L1, L2, L3, N, PE)
Rated current of power contacts	32 A
Rated voltage for power contacts	480 V AC
Number of signal contacts	2 (CP, PP)
Rated current for signal contacts	2 A
Rated voltage for signal contacts	30 V AC
Type of signal transmission	Pulse width modulation
Note on the connection method	Connection via spade connector, separable
Temperature monitoring	PTC system (DIN EN 60738-1)

# Socket Outlet - EV-T2M3SO12-3P-P - 1164307

## Technical data

### Mechanical properties

Insertion force	< 100 N
Withdrawal force	< 100 N

### Mounting

Possible mounting positions	Rear panel mounting
Restrictions to mounting position	Only 0 to 90 degree frontal inclination possible, see figure
Mounting position of the locking actuator	Top center position
Screw connection of a protective cover	Only rear mounting possible
Max. wall thickness	max. 50 mm (Rear panel mounting, normative maximum specification for infrastructure plug)
	max. 28 mm (Rear mounting, normative maximum specification for infrastructure plug when using protective cover 1405217)
Mounting hole diameter	7.00 mm (ø)
Required mounting screws	M5 thread
Screws included in the scope of delivery	none

### Design

Design line	Premium
Housing color	black

### Material

Material	Plastic
Material surface of contacts	Ag

### Locking

Locking type	Locking in the inserted state with a locking mechanism
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### Locking actuator

Number of positions of the connectors	3
Operating voltage	12 V (Typical power supply at the motor)
Possible power supply range at the motor	9 V ... 15.5 V
Operating current	< 1.8 A
Typical motor current for locking	250 mA Average run current
Reverse current of the motor	max. 2.4 A (Stall current)
Max. dwell time with reverse current	4 s
Recommended triggering time	200 ms ... 10 s ( $t_{on}$ , typical)
Pause time after entry or exit path	8x ( $t_{on}$ , typical)
Service life insertion cycles	> 10000 load cycles
Ambient temperature (operation)	-30 °C ... 50 °C
Cable length	0.5 m
Cable structure	3 x 0.5 mm <sup>2</sup>

# Socket Outlet - EV-T2M3SO12-3P-P - 1164307

## Technical data

### Locking actuator

Lock recognition	available
Mechanical emergency release	available
Lock setting	LOCK (Lever in horizontal position)
	UNLOCK (Lever in vertical position)

### Temperature monitoring, AC contacts

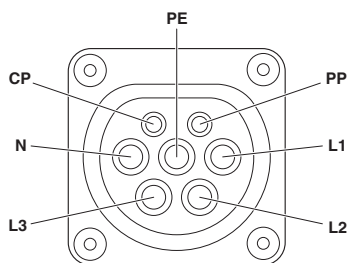
Type of sensor	PTC chain
Standards/regulations	DIN#EN 60738-1
Recommended measured current	$\leq 1 \text{ mA}$ ( $U_{\text{max}} = 24 \text{ V DC}$ )
Resistance range	800 $\Omega$ ... 300 k $\Omega$
Switch-off threshold	10.00 k $\Omega$

### Environmental Product Compliance

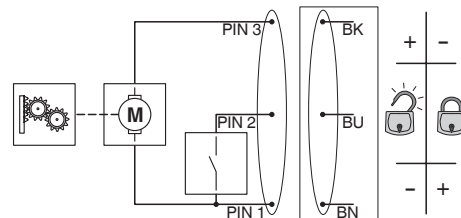
REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 10;
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

## Drawings

Connection diagram



Block diagram

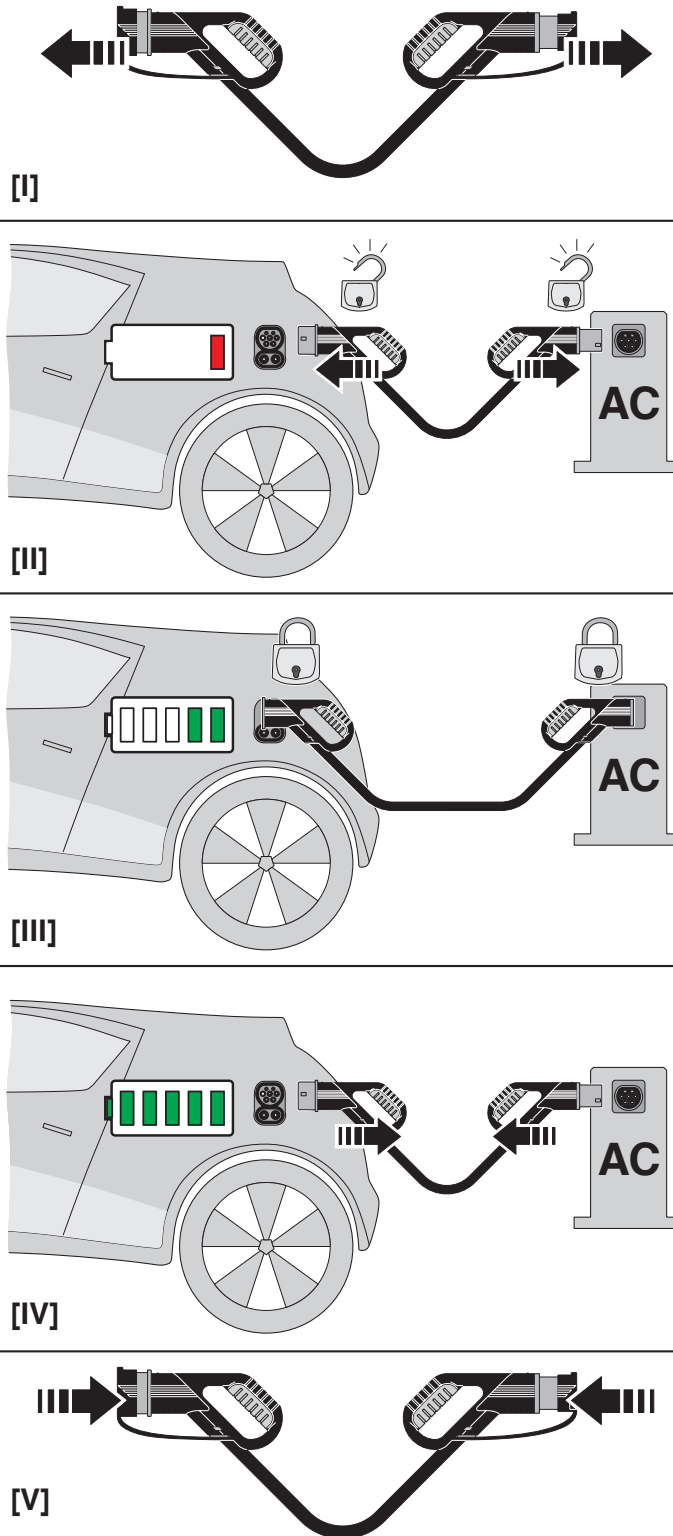


Block diagram of the locking actuator

Pin assignment of Infrastructure Socket Outlet

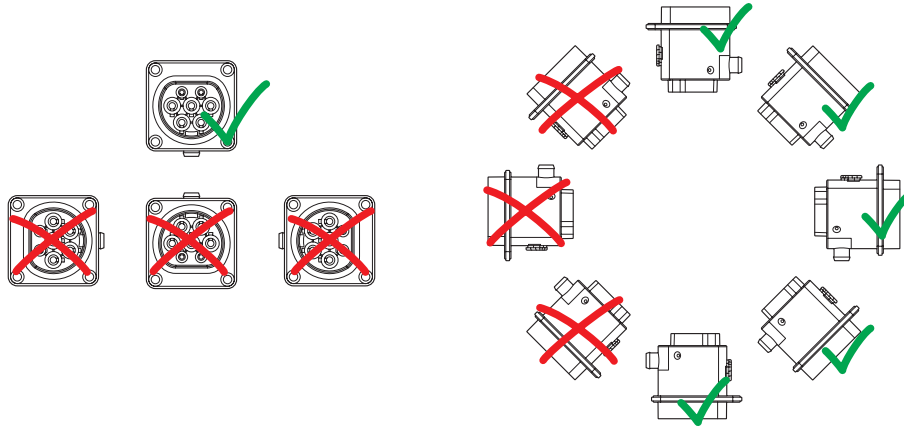
# Socket Outlet - EV-T2M3SO12-3P-P - 1164307

Schematic diagram



# Socket Outlet - EV-T2M3SO12-3P-P - 1164307

Schematic diagram



Installation positions

## Classifications

eCl@ss

eCl@ss 10.0.1	27144706
eCl@ss 11.0	27144706
eCl@ss 9.0	27144706

ETIM

ETIM 7.0	EC002898
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## Accessories

Accessories

AC charging controller

AC charging controller - CHARX SEC-1000 - 1139034



CHARX control modular, AC charging controller according to IEC 61851-1. Configurable charging controller. operating mode Stand-alone or client. interface: CHARX control modular system bus. Connectable peripheral devices: Energy meter, RFID, DC residual current detection. DIN rail mounting

## Socket Outlet - EV-T2M3SO12-3P-P - 1164307

### Accessories

#### AC charging controller - CHARX SEC-3000 - 1139022



CHARX control modular, AC charging controller according to IEC 61851-1. Embedded Linux system. operating mode Stand-alone, server, or client. interface: Ethernet (2x), CHARX control modular system bus, MICRO-USB type C. communication protocol: OCPP 1.6J, Modbus/TCP, MQTT. Connectable peripheral devices: Energy meter, RFID, DC residual current detection. DIN rail mounting

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#### AC charging controller - CHARX SEC-3050 - 1139018



CHARX control modular, AC charging controller according to IEC 61851-1, ISO/IEC 15118. Embedded Linux system. operating mode Stand-alone, server, or client. interface: Ethernet (2x), CHARX control modular system bus, MICRO-USB type C. communication protocol: OCPP 1.6J, Modbus/TCP, MQTT. Connectable peripheral devices: Energy meter, RFID, DC residual current detection. DIN rail mounting

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#### AC charging controller - CHARX SEC-3100 - 1139012



CHARX control modular, AC charging controller according to IEC 61851-1. Embedded Linux system. operating mode Stand-alone, server, or client. interface: Ethernet (2x), Cellular communication (4G/2G), CHARX control modular system bus, MICRO-USB type C. communication protocol: OCPP 1.6J, Modbus/TCP, MQTT. Connectable peripheral devices: Energy meter, RFID, DC residual current detection. DIN rail mounting

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#### AC charging controller - CHARX SEC-3150 - 1138965



CHARX control modular, AC charging controller according to IEC 61851-1, ISO/IEC 15118. Embedded Linux system. operating mode Stand-alone, server, or client. interface: Ethernet (2x), Cellular communication (4G/2G), CHARX control modular system bus, MICRO-USB type C. communication protocol: OCPP 1.6J, Modbus/TCP, MQTT. Connectable peripheral devices: Energy meter, RFID, DC residual current detection. DIN rail mounting

---

#### AC charging controller - EM-CP-PP-ETH - 2902802



EV charge control is used to charge electrical vehicles on the 3-phase AC mains power supply according to IEC 61851-1 Mode 3. All necessary control functions are integrated. Additional functions are available for various charging applications.

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### Adhesive label

## Socket Outlet - EV-T2M3SO12-3P-P - 1164307

### Accessories

Label - EV-LABEL-C-SO - 1315521



CHARX connect, Label, for AC charging cables and infrastructure charging sockets, DIN EN 17186, Marking C for AC type 2 infrastructure charging plugs and type 2 infrastructure charging sockets

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### Arrester combination

Lightning/surge arrester type 1/2 - VAL-EV-T1/T2 264/12.5/3+1 - 1180149



CHARX protect: pluggable lightning current arrester/surge protective device, in accordance with Type 1/2 / Class I/II, for 3-phase power supply networks with separate N and PE (5-conductor system: L1, L2, L3, N, PE). Specifically designed for use in e-mobility.

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Lightning/surge arrester type 1/2 - VAL-EV-T1/T2 264/12.5/3+1-R - 1180150



CHARX protect: pluggable lightning current arrester/surge protective device, in accordance with Type 1/2 / Class I/II, for 3-phase power supply networks with separate N and PE (5-conductor system: L1, L2, L3, N, PE), with remote indication contact. Specifically designed for use in e-mobility.

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Type 2 surge arrester - VAL-EV-T2 280/3+1 - 1180144



CHARX protect: pluggable surge protective device, in accordance with Type 2 / Class II, for 3-phase power supply networks with separate N and PE (5-conductor system: L1, L2, L3, N, PE). Specifically designed for use in e-mobility.

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Type 2 surge arrester - VAL-EV-T2 280/3+1-R - 1180145



CHARX protect: pluggable surge protective device, in accordance with Type 2 / Class II, for 3-phase power supply networks with separate N and PE (5-conductor system: L1, L2, L3, N, PE), with remote indication contact. Specifically designed for use in e-mobility.

## Socket Outlet - EV-T2M3SO12-3P-P - 1164307

### Accessories

#### Assembly tool

##### Tool - EV-T2M3SO-CAP-REMOVER - 1286836

CHARX connect, tool for opening the optional cap for attachment to the back of the Generation 2.0 Basic infrastructure charging socket with functions for strain relief and touch protection.

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#### Cable set

##### Cable set - EV-T2M3SOW-1AC32A-0,3M6,0E - 1164343



CHARX connect, Cable set, Cables with slip-on sleeves on one end, Only for connection to generation 2 infrastructure charging sockets from Phoenix Contact, Type 2, IEC 62196-2, 32 A / 250 V (AC), Single wires, length: 0.3 m, Generation 2

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##### Cable set - EV-T2M3SOW-3AC20A-0,3M2,5E - 1164355



CHARX connect, Cable set, Cables with slip-on sleeves on one end, Only for connection to generation 2 infrastructure charging sockets from Phoenix Contact, Type 2, IEC 62196-2, 20 A / 480 V (AC), Single wires, length: 0.3 m, Generation 2

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##### Cable set - EV-T2M3SOW-3AC32A-0,3M6,0E - 1164362



CHARX connect, Cable set, Cables with slip-on sleeves on one end, Only for connection to generation 2 infrastructure charging sockets from Phoenix Contact, Type 2, IEC 62196-2, 32 A / 480 V (AC), Single wires, length: 0.3 m, Generation 2

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##### Cable set - EV-T2M3SOW-1AC32A-0,7M6,0E - 1164344



CHARX connect, Cable set, Cables with slip-on sleeves on one end, Only for connection to generation 2 infrastructure charging sockets from Phoenix Contact, Type 2, IEC 62196-2, 32 A / 250 V (AC), Single wires, length: 0.7 m, Generation 2

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## Socket Outlet - EV-T2M3SO12-3P-P - 1164307

### Accessories

Cable set - EV-T2M3SOW-3AC20A-0,7M2,5E - 1164361



CHARX connect, Cable set, Cables with slip-on sleeves on one end, Only for connection to generation 2 infrastructure charging sockets from Phoenix Contact, Type 2, IEC 62196-2, 20 A / 480 V (AC), Single wires, length: 0.7 m, Generation 2

Cable set - EV-T2M3SOW-3AC32A-0,7M6,0E - 1164365



CHARX connect, Cable set, Cables with slip-on sleeves on one end, Only for connection to generation 2 infrastructure charging sockets from Phoenix Contact, Type 2, IEC 62196-2, 32 A / 480 V (AC), Single wires, length: 0.7 m, Generation 2

### Infrastructure socket outlet

Connector - EV-T2M3SL12-CONNECTOR - 1132718



CHARX connect, Connector, For controlling a 3-pos. locking actuator of an infrastructure charging socket, Single wires

### Protective cover for Socket Outlet

Protective covers - EV-T2SOC-P - 1164297



CHARX connect, Protective covers, self-closing, rear protective cover screw connection, with LED status indicator within the protective cover, for attaching to infrastructure charging sockets, Type 2, IEC 62196-2, Front mounting, screwed on the back, M5 thread, Premium, Embossed PHOENIX CONTACT logo

Strain relief - EV-T2M3SO-CAP - 1202424



CHARX connect, Strain relief, Touch protection, For generation 2.0 infrastructure charging socket, For plugging onto the rear of the infrastructure charging socket, Type 2, IEC 62196-2, Generation 2

# Socket Outlet - EV-T2M3SO12-3P-P - 1164307

## Accessories

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## Socket Outlet - EV-T2M3SO12-4P-B - 1164300

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CHARX connect, Socket Outlet, rear protective cover screw connection, can be reconnected, For charging electric vehicles (EV) with alternating current (AC), Compatible with infrastructure charging plugs, Type 2, IEC 62196-2, 32 A / 480 V (AC), without cable, 4-position, Rear panel mounting, Basic, "PHOENIX CONTACT" logo


### Product Description

Infrastructure Socket Outlet 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

- ✓ Protected against overheating with precise temperature measurement
- ✓ Flexible mounting and easy maintenance with plug-in cables
- ✓ Available with your logo on request – for consistent branding of your charging station
- ✓ Waterproof and dirtproof due to fully molded contacts
- ✓ Developed and produced in accordance with the IATF 16949 automotive standard and ISO 9001
- ✓ Uniform, space-saving installation space

### Key Commercial Data

Packing unit	1
GTIN	 4 063151 177829
GTIN	4063151177829
Custom tariff number	85366990

### Technical data

#### Product definition

Type	rear protective cover screw connection
	can be reconnected
Application	For charging electric vehicles (EV) with alternating current (AC)
	Compatible with infrastructure charging plugs
Affixed logo	"PHOENIX CONTACT" logo
Design	Basic
Standards/regulations	IEC 62196-2

# Socket Outlet - EV-T2M3SO12-4P-B - 1164300

## Technical data

### Product definition

Charging standard	Type 2
Charging mode	Mode 3, Case B
Note on the connection method	Connection via spade connector, separable

### Dimensions

Height	91.71 mm
Width	75 mm
Depth	87.95 mm (with attachable cap for strain relief and touch protection, see accessories)
	73.35 mm (without attachable cap for strain relief and touch protection, see accessories)
Bore dimensions	60 mm x 60 mm
Type of conductor	without cable

### Ambient conditions

Ambient temperature (operation)	-30 °C ... 50 °C
Ambient temperature (storage/transport)	-40 °C ... 80 °C
Max. altitude	5000 m (above sea level)
Degree of protection	IP44 (plugged in)
	IP54 (with protective cover, see accessories)

### Electrical properties

Charging power (nominal operation)	22 kW
Type of charging current	AC 3-phase
Number of phases	3
Number of power contacts	5 (L1, L2, L3, N, PE)
Rated current of power contacts	32 A
Rated voltage for power contacts	480 V AC
Number of signal contacts	2 (CP, PP)
Rated current for signal contacts	2 A
Rated voltage for signal contacts	30 V AC
Type of signal transmission	Pulse width modulation
Note on the connection method	Connection via spade connector, separable

### Mechanical properties

Insertion/withdrawal cycles	> 10000
Insertion force	< 100 N
Withdrawal force	< 100 N

### Mounting

Possible mounting positions	Rear panel mounting
-----------------------------	---------------------

# Socket Outlet - EV-T2M3SO12-4P-B - 1164300

## Technical data

### Mounting

Restrictions to mounting position	Only 0 to 90 degree frontal inclination possible, see figure
Mounting position of the locking actuator	Top center position
Screw connection of a protective cover	Only rear mounting possible
Max. wall thickness	max. 50 mm (Rear panel mounting, normative maximum specification for infrastructure plug)
	max. 28 mm (Rear mounting, normative maximum specification for infrastructure plug when using protective cover 1405217)
Mounting hole diameter	7.00 mm (ø)
Screws included in the scope of delivery	none

### Design

Design line	Basic
Housing color	black

### Material

Material	Plastic
Material surface of contacts	Ag

### Locking

Locking type	Locking in the inserted state with a locking mechanism
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### Locking actuator

Number of positions of the connectors	4
Operating voltage	12 V (Typical power supply at the motor)
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
Ambient temperature (operation)	-30 °C ... 50 °C
Cable length	0.5 m
Cable structure	4 x 0.5 mm <sup>2</sup>
Lock recognition	available
Mechanical emergency release	available

### Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 10;

# Socket Outlet - EV-T2M3SO12-4P-B - 1164300

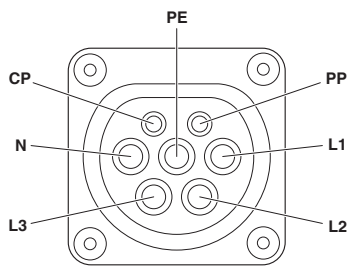
## Technical data

### Environmental Product Compliance

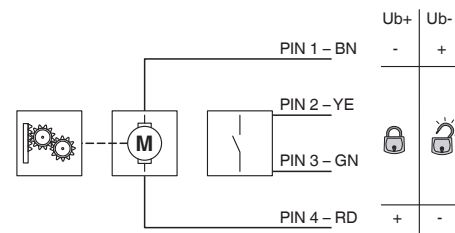
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"
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## Drawings

Connection diagram



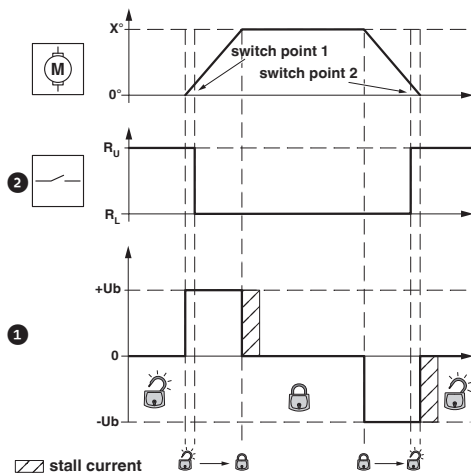
Block diagram



Block diagram of the locking actuator

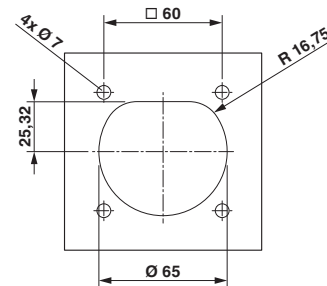
Pin assignment of Infrastructure Socket Outlet

Schematic diagram



Locking states of the locking actuator

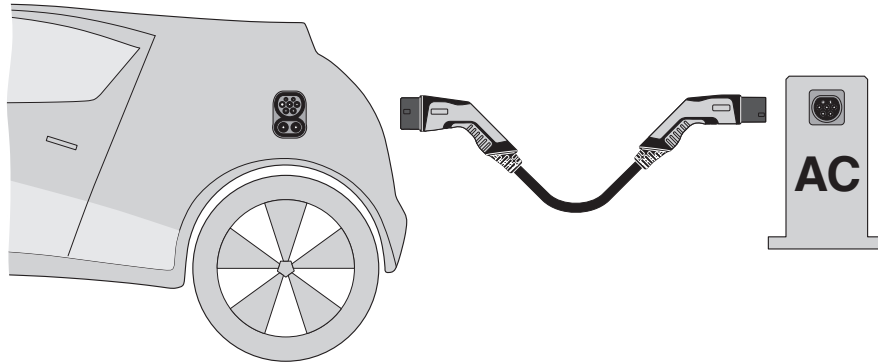
Schematic diagram



Hole image

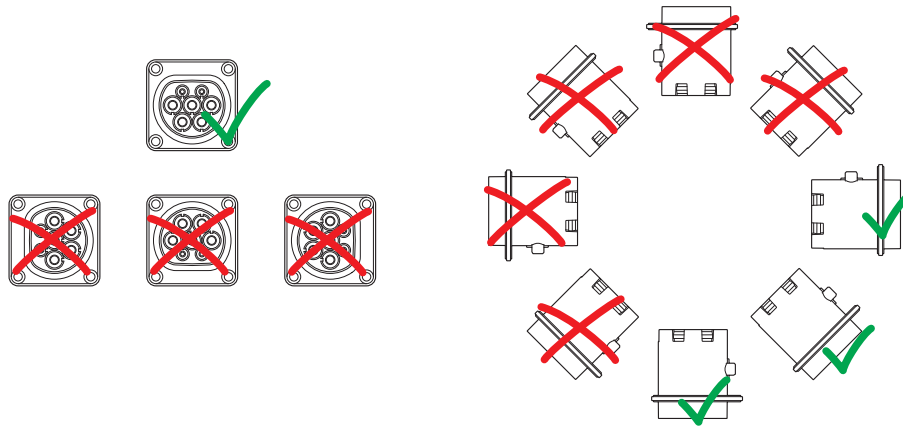
# Socket Outlet - EV-T2M3SO12-4P-B - 1164300

Schematic diagram



## Operating instructions

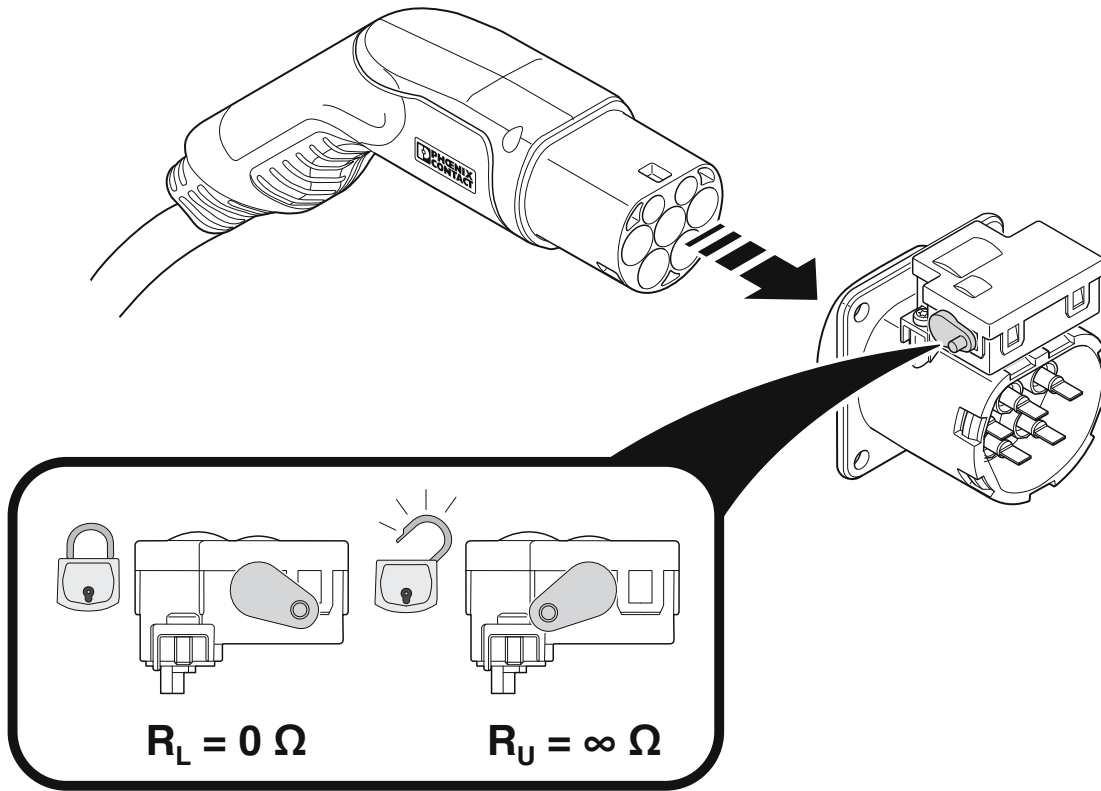
Schematic diagram



## Installation positions

# Socket Outlet - EV-T2M3SO12-4P-B - 1164300

Schematic diagram



Position of the emergency unlocking lever on the locking actuator

# Socket Outlet - EV-T2M3SO12-4P-B - 1164300

## Classifications

### eCl@ss

eCl@ss 10.0.1	27144706
eCl@ss 11.0	27144706
eCl@ss 9.0	27144706

### ETIM

ETIM 7.0	EC002898
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## Approvals

### Approvals

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#### Approvals


VDE Gutachten mit Fertigungsüberwachung

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#### Ex Approvals

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### Approval details

VDE Gutachten mit Fertigungsüberwachung		<a href="http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx">http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx</a>	40053862
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## Accessories

### Accessories

#### AC charging controller

#### AC charging controller - CHARX SEC-1000 - 1139034



CHARX control modular, AC charging controller according to IEC 61851-1. Configurable charging controller. operating mode Stand-alone or client. interface: CHARX control modular system bus. Connectable peripheral devices: Energy meter, RFID, DC residual current detection. DIN rail mounting

## Socket Outlet - EV-T2M3SO12-4P-B - 1164300

### Accessories

#### AC charging controller - CHARX SEC-3000 - 1139022



CHARX control modular, AC charging controller according to IEC 61851-1. Embedded Linux system. operating mode Stand-alone, server, or client. interface: Ethernet (2x), CHARX control modular system bus, MICRO-USB type C. communication protocol: OCPP 1.6J, Modbus/TCP, MQTT. Connectable peripheral devices: Energy meter, RFID, DC residual current detection. DIN rail mounting

---

#### AC charging controller - CHARX SEC-3050 - 1139018



CHARX control modular, AC charging controller according to IEC 61851-1, ISO/IEC 15118. Embedded Linux system. operating mode Stand-alone, server, or client. interface: Ethernet (2x), CHARX control modular system bus, MICRO-USB type C. communication protocol: OCPP 1.6J, Modbus/TCP, MQTT. Connectable peripheral devices: Energy meter, RFID, DC residual current detection. DIN rail mounting

---

#### AC charging controller - CHARX SEC-3100 - 1139012



CHARX control modular, AC charging controller according to IEC 61851-1. Embedded Linux system. operating mode Stand-alone, server, or client. interface: Ethernet (2x), Cellular communication (4G/2G), CHARX control modular system bus, MICRO-USB type C. communication protocol: OCPP 1.6J, Modbus/TCP, MQTT. Connectable peripheral devices: Energy meter, RFID, DC residual current detection. DIN rail mounting

---

#### AC charging controller - CHARX SEC-3150 - 1138965



CHARX control modular, AC charging controller according to IEC 61851-1, ISO/IEC 15118. Embedded Linux system. operating mode Stand-alone, server, or client. interface: Ethernet (2x), Cellular communication (4G/2G), CHARX control modular system bus, MICRO-USB type C. communication protocol: OCPP 1.6J, Modbus/TCP, MQTT. Connectable peripheral devices: Energy meter, RFID, DC residual current detection. DIN rail mounting

---

#### AC charging controller - EM-CP-PP-ETH - 2902802



EV charge control is used to charge electrical vehicles on the 3-phase AC mains power supply according to IEC 61851-1 Mode 3. All necessary control functions are integrated. Additional functions are available for various charging applications.

---

### Adhesive label

## Socket Outlet - EV-T2M3SO12-4P-B - 1164300

### Accessories

Label - EV-LABEL-C-SO - 1315521



CHARX connect, Label, for AC charging cables and infrastructure charging sockets, DIN EN 17186, Marking C for AC type 2 infrastructure charging plugs and type 2 infrastructure charging sockets

---

### Arrester combination

Lightning/surge arrester type 1/2 - VAL-EV-T1/T2 264/12.5/3+1 - 1180149



CHARX protect: pluggable lightning current arrester/surge protective device, in accordance with Type 1/2 / Class I/II, for 3-phase power supply networks with separate N and PE (5-conductor system: L1, L2, L3, N, PE). Specifically designed for use in e-mobility.

---

Lightning/surge arrester type 1/2 - VAL-EV-T1/T2 264/12.5/3+1-R - 1180150



CHARX protect: pluggable lightning current arrester/surge protective device, in accordance with Type 1/2 / Class I/II, for 3-phase power supply networks with separate N and PE (5-conductor system: L1, L2, L3, N, PE), with remote indication contact. Specifically designed for use in e-mobility.

---

Type 2 surge arrester - VAL-EV-T2 280/3+1 - 1180144



CHARX protect: pluggable surge protective device, in accordance with Type 2 / Class II, for 3-phase power supply networks with separate N and PE (5-conductor system: L1, L2, L3, N, PE). Specifically designed for use in e-mobility.

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Type 2 surge arrester - VAL-EV-T2 280/3+1-R - 1180145



CHARX protect: pluggable surge protective device, in accordance with Type 2 / Class II, for 3-phase power supply networks with separate N and PE (5-conductor system: L1, L2, L3, N, PE), with remote indication contact. Specifically designed for use in e-mobility.

## Socket Outlet - EV-T2M3SO12-4P-B - 1164300

### Accessories

#### Assembly tool

##### Tool - EV-T2M3SO-CAP-REMOVER - 1286836

CHARX connect, tool for opening the optional cap for attachment to the back of the Generation 2.0 Basic infrastructure charging socket with functions for strain relief and touch protection.

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#### Cable set

##### Cable set - EV-T2M3SOW-1AC32A-0,3M6,0E - 1164343



CHARX connect, Cable set, Cables with slip-on sleeves on one end, Only for connection to generation 2 infrastructure charging sockets from Phoenix Contact, Type 2, IEC 62196-2, 32 A / 250 V (AC), Single wires, length: 0.3 m, Generation 2

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##### Cable set - EV-T2M3SOW-3AC20A-0,3M2,5E - 1164355



CHARX connect, Cable set, Cables with slip-on sleeves on one end, Only for connection to generation 2 infrastructure charging sockets from Phoenix Contact, Type 2, IEC 62196-2, 20 A / 480 V (AC), Single wires, length: 0.3 m, Generation 2

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##### Cable set - EV-T2M3SOW-3AC32A-0,3M6,0E - 1164362



CHARX connect, Cable set, Cables with slip-on sleeves on one end, Only for connection to generation 2 infrastructure charging sockets from Phoenix Contact, Type 2, IEC 62196-2, 32 A / 480 V (AC), Single wires, length: 0.3 m, Generation 2

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##### Cable set - EV-T2M3SOW-1AC32A-0,7M6,0E - 1164344



CHARX connect, Cable set, Cables with slip-on sleeves on one end, Only for connection to generation 2 infrastructure charging sockets from Phoenix Contact, Type 2, IEC 62196-2, 32 A / 250 V (AC), Single wires, length: 0.7 m, Generation 2

---

## Socket Outlet - EV-T2M3SO12-4P-B - 1164300

### Accessories

#### Cable set - EV-T2M3SOW-3AC20A-0,7M2,5E - 1164361



CHARX connect, Cable set, Cables with slip-on sleeves on one end, Only for connection to generation 2 infrastructure charging sockets from Phoenix Contact, Type 2, IEC 62196-2, 20 A / 480 V (AC), Single wires, length: 0.7 m, Generation 2

---

#### Cable set - EV-T2M3SOW-3AC32A-0,7M6,0E - 1164365



CHARX connect, Cable set, Cables with slip-on sleeves on one end, Only for connection to generation 2 infrastructure charging sockets from Phoenix Contact, Type 2, IEC 62196-2, 32 A / 480 V (AC), Single wires, length: 0.7 m, Generation 2

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### Protective cover for Socket Outlet

#### Protective covers - EV-T2SOC-B - 1164293



CHARX connect, Protective covers, self-closing, rear protective cover screw connection, for attaching to infrastructure charging sockets, Type 2, Front mounting, screwed on the back, M5 thread, Basic, Embossed PHOENIX CONTACT logo

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#### Strain relief - EV-T2M3SO-CAP - 1202424



CHARX connect, Strain relief, Touch protection, For generation 2.0 infrastructure charging socket, For plugging onto the rear of the infrastructure charging socket, Type 2, IEC 62196-2, Generation 2

# Socket Outlet - EV-T2M3SO12-4P-B-EM - 1286389

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CHARX connect, Socket Outlet, front protective cover screw connection, can be reconnected, For charging electric vehicles (EV) with alternating current (AC), Compatible with infrastructure charging plugs, Type 2, IEC 62196-2, 32 A / 480 V (AC), without cable, 4-position, Rear panel mounting, Basic, "PHOENIX CONTACT" logo

The figure shows the standard item


## Product Description

Infrastructure Socket Outlet 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

- ✔ Protected against overheating with precise temperature measurement
- ✔ Flexible mounting and easy maintenance with plug-in cables
- ✔ Available with your logo on request – for consistent branding of your charging station
- ✔ Waterproof and dirtproof due to fully molded contacts
- ✔ Developed and produced in accordance with the IATF 16949 automotive standard and ISO 9001
- ✔ Uniform, space-saving installation space

## Key Commercial Data

Packing unit	1
GTIN	 4 063151 493660
GTIN	4063151493660
Custom tariff number	85366990

## Technical data

### Product definition

Type	front protective cover screw connection
	can be reconnected
Application	For charging electric vehicles (EV) with alternating current (AC)
	Compatible with infrastructure charging plugs
Affixed logo	"PHOENIX CONTACT" logo
Design	Basic

# Socket Outlet - EV-T2M3SO12-4P-B-EM - 1286389

## Technical data

### Product definition

Standards/regulations	IEC 62196-2
Charging standard	Type 2
Charging mode	Mode 3, Case B
Note on the connection method	Connection via spade connector, separable

### Dimensions

Height	91.71 mm
Width	75 mm
Depth	87.95 mm (with attachable cap for strain relief and touch protection, see accessories)
	73.35 mm (without attachable cap for strain relief and touch protection, see accessories)
Bore dimensions	60 mm x 60 mm
Type of conductor	without cable

### Ambient conditions

Ambient temperature (operation)	-30 °C ... 50 °C
Ambient temperature (storage/transport)	-40 °C ... 80 °C
Max. altitude	5000 m (above sea level)
Degree of protection	IP44 (plugged in)
	IP54 (with protective cover, see accessories)

### Electrical properties

Charging power (nominal operation)	22 kW
Type of charging current	AC 3-phase
Number of phases	3
Number of power contacts	5 (L1, L2, L3, N, PE)
Rated current of power contacts	32 A
Rated voltage for power contacts	480 V AC
Number of signal contacts	2 (CP, PP)
Rated current for signal contacts	2 A
Rated voltage for signal contacts	30 V AC
Type of signal transmission	Pulse width modulation
Note on the connection method	Connection via spade connector, separable

### Mechanical properties

Insertion/withdrawal cycles	> 10000
Insertion force	< 100 N
Withdrawal force	< 100 N

### Mounting

# Socket Outlet - EV-T2M3SO12-4P-B-EM - 1286389

## Technical data

### Mounting

Possible mounting positions	Rear panel mounting
Restrictions to mounting position	Only 0 to 90 degree frontal inclination possible, see figure
Mounting position of the locking actuator	Top center position
Screw connection of a protective cover	Only possible on the front
Max. wall thickness	max. 22 mm (Rear panel mounting, normative maximum specification for infrastructure plug when using the protective cover (Item No. 1627635) with fastening frame (Item No. 1627637))
Mounting hole diameter	7.00 mm (ø)

### Design

Design line	Basic
Housing color	black

### Material

Material	Plastic
Material surface of contacts	Ag

### Locking

Locking type	Locking in the inserted state with a locking mechanism
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### Locking actuator

Number of positions of the connectors	4
Operating voltage	12 V (Typical power supply at the motor)
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
Ambient temperature (operation)	-30 °C ... 50 °C
Cable length	0.5 m
Cable structure	4 x 0.5 mm <sup>2</sup>
Lock recognition	available
Mechanical emergency release	available

### Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 10;

# Socket Outlet - EV-T2M3SO12-4P-B-EM - 1286389

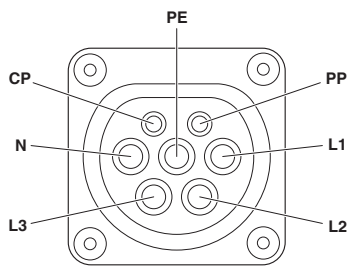
## Technical data

### Environmental Product Compliance

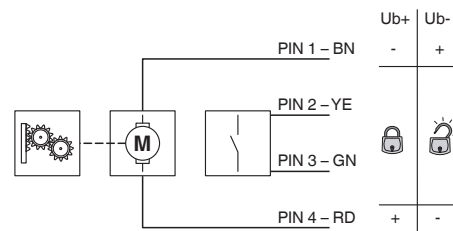
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"
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## Drawings

Connection diagram



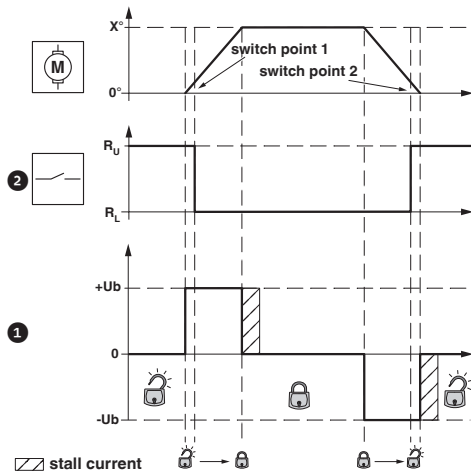
Block diagram



Block diagram of the locking actuator

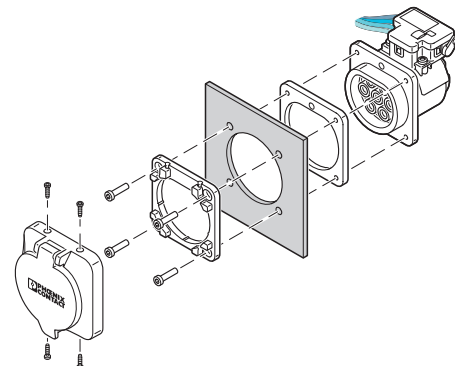
### Pin assignment of Infrastructure Socket Outlet

Schematic diagram



Locking states of the locking actuator

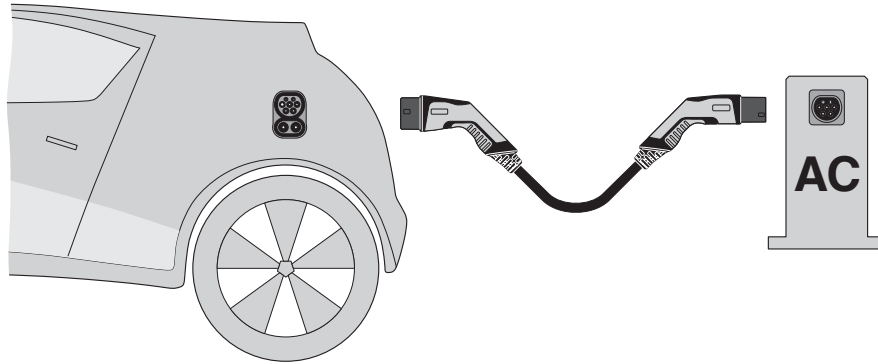
Schematic diagram



**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.

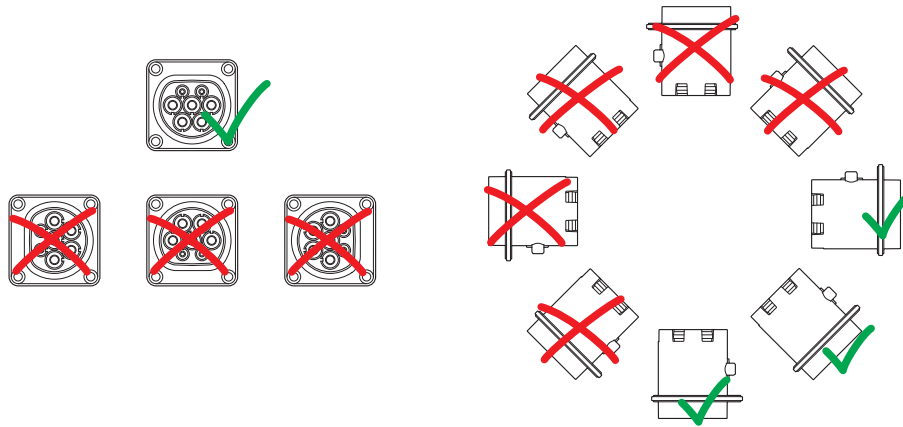
# Socket Outlet - EV-T2M3SO12-4P-B-EM - 1286389

Schematic diagram



## Operating instructions

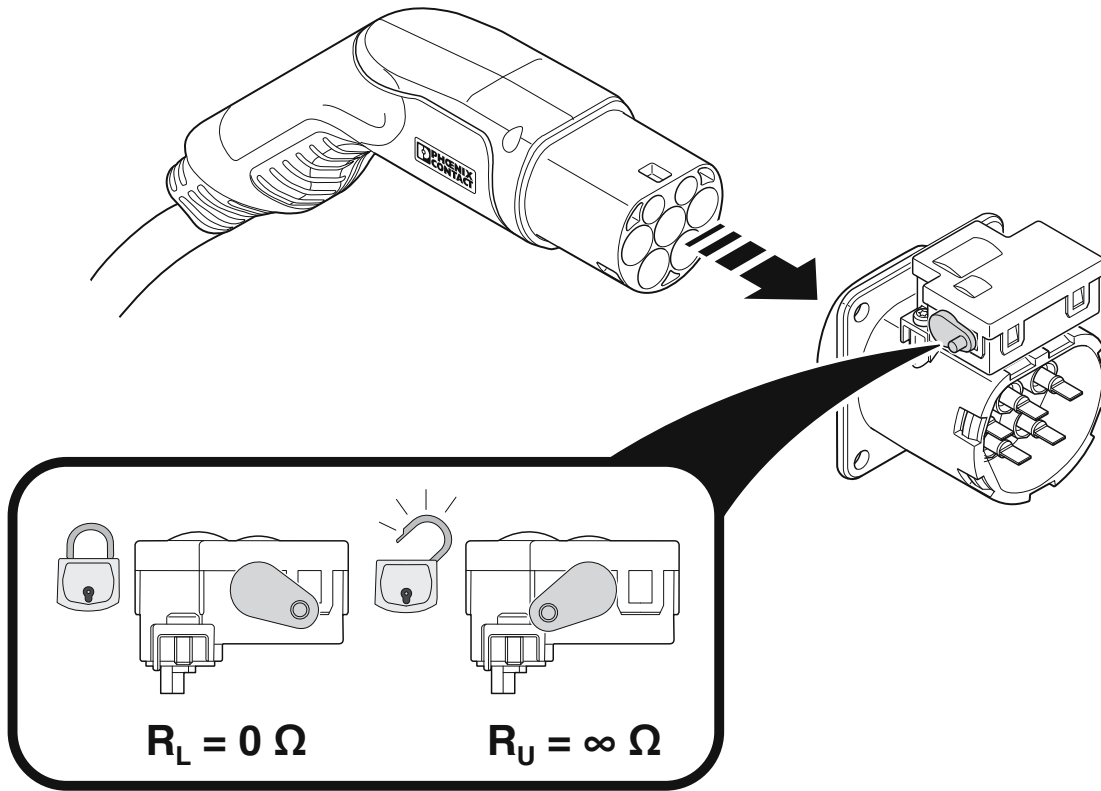
Schematic diagram



## Installation positions

# Socket Outlet - EV-T2M3SO12-4P-B-EM - 1286389

Schematic diagram



Position of the emergency unlocking lever on the locking actuator

# Socket Outlet - EV-T2M3SO12-4P-B-EM - 1286389

## Classifications

eCl@ss

eCl@ss 10.0.1	27144706
eCl@ss 11.0	27144706
eCl@ss 9.0	27144706

ETIM

ETIM 7.0	EC002898
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## Accessories

Accessories

AC charging controller

AC charging controller - CHARX SEC-1000 - 1139034



CHARX control modular, AC charging controller according to IEC 61851-1. Configurable charging controller. operating mode Stand-alone or client. interface: CHARX control modular system bus. Connectable peripheral devices: Energy meter, RFID, DC residual current detection. DIN rail mounting

AC charging controller - CHARX SEC-3000 - 1139022



CHARX control modular, AC charging controller according to IEC 61851-1. Embedded Linux system. operating mode Stand-alone, server, or client. interface: Ethernet (2x), CHARX control modular system bus, MICRO-USB type C. communication protocol: OCPP 1.6J, Modbus/TCP, MQTT. Connectable peripheral devices: Energy meter, RFID, DC residual current detection. DIN rail mounting

AC charging controller - CHARX SEC-3050 - 1139018



CHARX control modular, AC charging controller according to IEC 61851-1, ISO/IEC 15118. Embedded Linux system. operating mode Stand-alone, server, or client. interface: Ethernet (2x), CHARX control modular system bus, MICRO-USB type C. communication protocol: OCPP 1.6J, Modbus/TCP, MQTT. Connectable peripheral devices: Energy meter, RFID, DC residual current detection. DIN rail mounting

## Socket Outlet - EV-T2M3SO12-4P-B-EM - 1286389

### Accessories

#### AC charging controller - CHARX SEC-3100 - 1139012



CHARX control modular, AC charging controller according to IEC 61851-1. Embedded Linux system. operating mode Stand-alone, server, or client. interface: Ethernet (2x), Cellular communication (4G/2G), CHARX control modular system bus, MICRO-USB type C. communication protocol: OCPP 1.6J, Modbus/TCP, MQTT. Connectable peripheral devices: Energy meter, RFID, DC residual current detection. DIN rail mounting

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#### AC charging controller - CHARX SEC-3150 - 1138965



CHARX control modular, AC charging controller according to IEC 61851-1, ISO/IEC 15118. Embedded Linux system. operating mode Stand-alone, server, or client. interface: Ethernet (2x), Cellular communication (4G/2G), CHARX control modular system bus, MICRO-USB type C. communication protocol: OCPP 1.6J, Modbus/TCP, MQTT. Connectable peripheral devices: Energy meter, RFID, DC residual current detection. DIN rail mounting

---

#### AC charging controller - EM-CP-PP-ETH - 2902802



EV charge control is used to charge electrical vehicles on the 3-phase AC mains power supply according to IEC 61851-1 Mode 3. All necessary control functions are integrated. Additional functions are available for various charging applications.

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#### Adhesive label

##### Label - EV-LABEL-C-SO - 1315521



CHARX connect, Label, for AC charging cables and infrastructure charging sockets, DIN EN 17186, Marking C for AC type 2 infrastructure charging plugs and type 2 infrastructure charging sockets

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#### Arrester combination

##### Lightning/surge arrester type 1/2 - VAL-EV-T1/T2 264/12.5/3+1 - 1180149



CHARX protect: pluggable lightning current arrester/surge protective device, in accordance with Type 1/2 / Class I/II, for 3-phase power supply networks with separate N and PE (5-conductor system: L1, L2, L3, N, PE). Specifically designed for use in e-mobility.

## Socket Outlet - EV-T2M3SO12-4P-B-EM - 1286389

### Accessories

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#### Lightning/surge arrester type 1/2 - VAL-EV-T1/T2 264/12.5/3+1-R - 1180150



CHARX protect: pluggable lightning current arrester/surge protective device, in accordance with Type 1/2 / Class I/II, for 3-phase power supply networks with separate N and PE (5-conductor system: L1, L2, L3, N, PE), with remote indication contact. Specifically designed for use in e-mobility.

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#### Type 2 surge arrester - VAL-EV-T2 280/3+1 - 1180144



CHARX protect: pluggable surge protective device, in accordance with Type 2 / Class II, for 3-phase power supply networks with separate N and PE (5-conductor system: L1, L2, L3, N, PE). Specifically designed for use in e-mobility.

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#### Type 2 surge arrester - VAL-EV-T2 280/3+1-R - 1180145



CHARX protect: pluggable surge protective device, in accordance with Type 2 / Class II, for 3-phase power supply networks with separate N and PE (5-conductor system: L1, L2, L3, N, PE), with remote indication contact. Specifically designed for use in e-mobility.

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### Assembly tool

#### Tool - EV-T2M3SO-CAP-REMOVER - 1286836

CHARX connect, tool for opening the optional cap for attachment to the back of the Generation 2.0 Basic infrastructure charging socket with functions for strain relief and touch protection.

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### Cable set

#### Cable set - EV-T2M3SOW-1AC32A-0,3M6,0E - 1164343



CHARX connect, Cable set, Cables with slip-on sleeves on one end, Only for connection to generation 2 infrastructure charging sockets from Phoenix Contact, Type 2, IEC 62196-2, 32 A / 250 V (AC), Single wires, length: 0.3 m, Generation 2

---

## Socket Outlet - EV-T2M3SO12-4P-B-EM - 1286389

### Accessories

#### Cable set - EV-T2M3SOW-3AC20A-0,3M2,5E - 1164355



CHARX connect, Cable set, Cables with slip-on sleeves on one end, Only for connection to generation 2 infrastructure charging sockets from Phoenix Contact, Type 2, IEC 62196-2, 20 A / 480 V (AC), Single wires, length: 0.3 m, Generation 2

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#### Cable set - EV-T2M3SOW-3AC32A-0,3M6,0E - 1164362



CHARX connect, Cable set, Cables with slip-on sleeves on one end, Only for connection to generation 2 infrastructure charging sockets from Phoenix Contact, Type 2, IEC 62196-2, 32 A / 480 V (AC), Single wires, length: 0.3 m, Generation 2

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#### Cable set - EV-T2M3SOW-1AC32A-0,7M6,0E - 1164344



CHARX connect, Cable set, Cables with slip-on sleeves on one end, Only for connection to generation 2 infrastructure charging sockets from Phoenix Contact, Type 2, IEC 62196-2, 32 A / 250 V (AC), Single wires, length: 0.7 m, Generation 2

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#### Cable set - EV-T2M3SOW-3AC20A-0,7M2,5E - 1164361



CHARX connect, Cable set, Cables with slip-on sleeves on one end, Only for connection to generation 2 infrastructure charging sockets from Phoenix Contact, Type 2, IEC 62196-2, 20 A / 480 V (AC), Single wires, length: 0.7 m, Generation 2

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#### Cable set - EV-T2M3SOW-3AC32A-0,7M6,0E - 1164365



CHARX connect, Cable set, Cables with slip-on sleeves on one end, Only for connection to generation 2 infrastructure charging sockets from Phoenix Contact, Type 2, IEC 62196-2, 32 A / 480 V (AC), Single wires, length: 0.7 m, Generation 2

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### Protective cover for Socket Outlet

## Socket Outlet - EV-T2M3SO12-4P-B-EM - 1286389

### Accessories

Protective covers - EV-T2SOC-B - 1164293



CHARX connect, Protective covers, self-closing, rear protective cover screw connection, for attaching to infrastructure charging sockets, Type 2, Front mounting, screwed on the back, M5 thread, Basic, Embossed PHOENIX CONTACT logo

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Strain relief - EV-T2M3SO-CAP - 1202424



CHARX connect, Strain relief, Touch protection, For generation 2.0 infrastructure charging socket, For plugging onto the rear of the infrastructure charging socket, Type 2, IEC 62196-2, Generation 2

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# Socket Outlet - EV-T2M3SO12-4P-P - 1164299

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CHARX connect, Socket Outlet, rear protective cover screw connection, with temperature sensors, can be reconnected, For charging electric vehicles (EV) with alternating current (AC), Compatible with infrastructure charging plugs, Type 2, IEC 62196-2, 32 A / 480 V (AC), without cable, 4-position, Rear panel mounting, M5 thread, Premium, "PHOENIX CONTACT" logo

## Product Description


Infrastructure Socket Outlet 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

- ✓ Protected against overheating with precise temperature measurement
- ✓ Flexible mounting and easy maintenance with plug-in cables
- ✓ Available with your logo on request – for consistent branding of your charging station
- ✓ Waterproof and dirtproof due to fully molded contacts
- ✓ Developed and produced in accordance with the IATF 16949 automotive standard and ISO 9001
- ✓ Uniform, space-saving installation space



## Key Commercial Data

Packing unit	1
GTIN	 4 063151 176662
GTIN	4063151176662
Custom tariff number	85366990

## Technical data

### Product definition

Type	rear protective cover screw connection
	with temperature sensors
	can be reconnected

# Socket Outlet - EV-T2M3SO12-4P-P - 1164299

## Technical data

### Product definition

Application	For charging electric vehicles (EV) with alternating current (AC)
	Compatible with infrastructure charging plugs
Affixed logo	"PHOENIX CONTACT" logo
Design	Premium
Standards/regulations	IEC 62196-2
Charging standard	Type 2
Charging mode	Mode 3, Case B
Note on the connection method	Connection via spade connector, separable

### Dimensions

Height	91.71 mm
Depth	87.95 mm (with attachable cap for strain relief and touch protection, see accessories)
	73.35 mm (without attachable cap for strain relief and touch protection, see accessories)
Bore dimensions	60 mm x 60 mm
Type of conductor	without cable

### Ambient conditions

Ambient temperature (operation)	-30 °C ... 50 °C
Ambient temperature (storage/transport)	-40 °C ... 80 °C
Max. altitude	5000 m (above sea level)
Degree of protection	IP44 (plugged in)
	IP54 (with protective cover, see accessories)

### Electrical properties

Charging power (nominal operation)	22 kW
Type of charging current	AC 3-phase
Number of phases	3
Number of power contacts	5 (L1, L2, L3, N, PE)
Rated current of power contacts	32 A
Rated voltage for power contacts	480 V AC
Number of signal contacts	2 (CP, PP)
Rated current for signal contacts	2 A
Rated voltage for signal contacts	30 V AC
Type of signal transmission	Pulse width modulation
Note on the connection method	Connection via spade connector, separable
Temperature monitoring	PTC system (DIN EN 60738-1)

### Mechanical properties

# Socket Outlet - EV-T2M3SO12-4P-P - 1164299

## Technical data

### Mechanical properties

Insertion force	< 100 N
Withdrawal force	< 100 N

### Mounting

Possible mounting positions	Rear panel mounting
Restrictions to mounting position	Only 0 to 90 degree frontal inclination possible, see figure
Mounting position of the locking actuator	Top center position
Screw connection of a protective cover	Only rear mounting possible
Max. wall thickness	max. 50 mm (Rear panel mounting, normative maximum specification for infrastructure plug)
	max. 28 mm (Rear mounting, normative maximum specification for infrastructure plug when using protective cover 1405217)
Mounting hole diameter	7.00 mm (ø)
Required mounting screws	M5 thread
Screws included in the scope of delivery	none

### Design

Design line	Premium
Housing color	black

### Material

Material	Plastic
Material surface of contacts	Ag

### Locking

Locking type	Locking in the inserted state with a locking mechanism
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### Locking actuator

Number of positions of the connectors	4
Operating voltage	12 V (Typical power supply at the motor)
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
Ambient temperature (operation)	-30 °C ... 50 °C
Cable length	0.5 m
Cable structure	4 x 0.5 mm <sup>2</sup>

# Socket Outlet - EV-T2M3SO12-4P-P - 1164299

## Technical data

### Locking actuator

Lock recognition	available
Mechanical emergency release	available

### Temperature monitoring, AC contacts

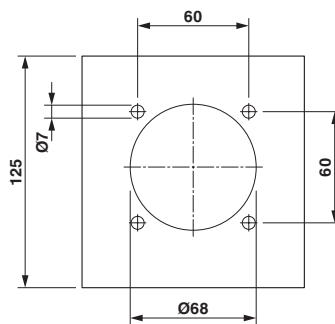
Type of sensor	PTC chain
Standards/regulations	DIN#EN 60738-1
Recommended measured current	$\leq 1 \text{ mA}$ ( $U_{\text{max}} = 24 \text{ V DC}$ )
Resistance range	800 $\Omega$ ... 300 k $\Omega$
Switch-off threshold	10.00 k $\Omega$

### Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 10;
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

## Drawings

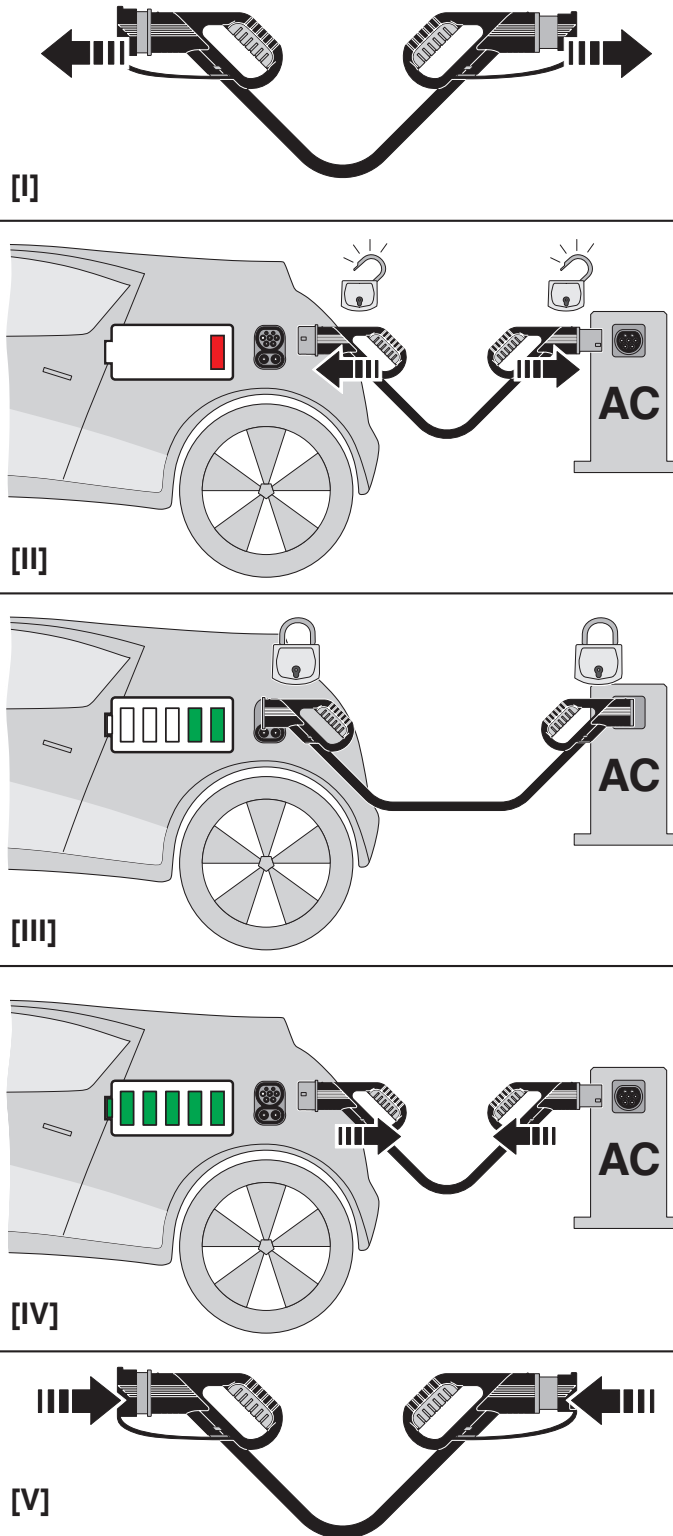
Dimensional drawing



Hole image

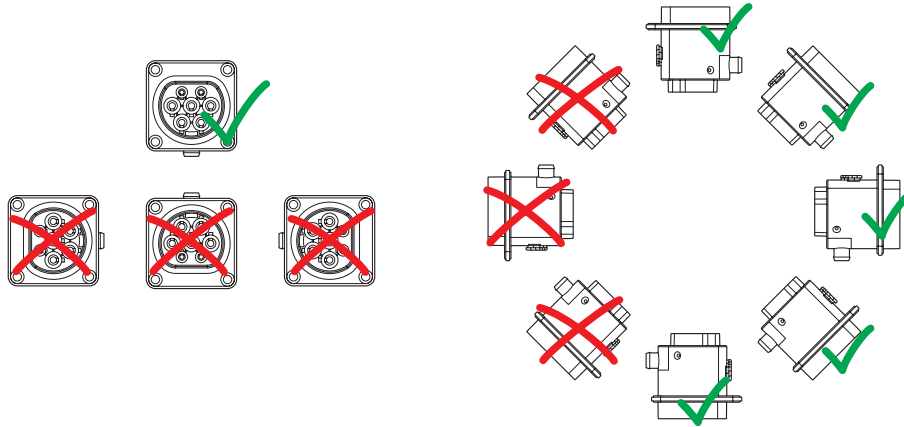
# Socket Outlet - EV-T2M3SO12-4P-P - 1164299

Schematic diagram



# Socket Outlet - EV-T2M3SO12-4P-P - 1164299

Schematic diagram



Installation positions

## Classifications

eCl@ss

eCl@ss 10.0.1	27144706
eCl@ss 11.0	27144706
eCl@ss 9.0	27144706

ETIM

ETIM 7.0	EC002898
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## Accessories

Accessories

AC charging controller

AC charging controller - CHARX SEC-1000 - 1139034



CHARX control modular, AC charging controller according to IEC 61851-1. Configurable charging controller. operating mode Stand-alone or client. interface: CHARX control modular system bus. Connectable peripheral devices: Energy meter, RFID, DC residual current detection. DIN rail mounting

## Socket Outlet - EV-T2M3SO12-4P-P - 1164299

### Accessories

#### AC charging controller - CHARX SEC-3000 - 1139022



CHARX control modular, AC charging controller according to IEC 61851-1. Embedded Linux system. operating mode Stand-alone, server, or client. interface: Ethernet (2x), CHARX control modular system bus, MICRO-USB type C. communication protocol: OCPP 1.6J, Modbus/TCP, MQTT. Connectable peripheral devices: Energy meter, RFID, DC residual current detection. DIN rail mounting

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#### AC charging controller - CHARX SEC-3050 - 1139018



CHARX control modular, AC charging controller according to IEC 61851-1, ISO/IEC 15118. Embedded Linux system. operating mode Stand-alone, server, or client. interface: Ethernet (2x), CHARX control modular system bus, MICRO-USB type C. communication protocol: OCPP 1.6J, Modbus/TCP, MQTT. Connectable peripheral devices: Energy meter, RFID, DC residual current detection. DIN rail mounting

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#### AC charging controller - CHARX SEC-3100 - 1139012



CHARX control modular, AC charging controller according to IEC 61851-1. Embedded Linux system. operating mode Stand-alone, server, or client. interface: Ethernet (2x), Cellular communication (4G/2G), CHARX control modular system bus, MICRO-USB type C. communication protocol: OCPP 1.6J, Modbus/TCP, MQTT. Connectable peripheral devices: Energy meter, RFID, DC residual current detection. DIN rail mounting

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#### AC charging controller - CHARX SEC-3150 - 1138965



CHARX control modular, AC charging controller according to IEC 61851-1, ISO/IEC 15118. Embedded Linux system. operating mode Stand-alone, server, or client. interface: Ethernet (2x), Cellular communication (4G/2G), CHARX control modular system bus, MICRO-USB type C. communication protocol: OCPP 1.6J, Modbus/TCP, MQTT. Connectable peripheral devices: Energy meter, RFID, DC residual current detection. DIN rail mounting

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#### AC charging controller - EM-CP-PP-ETH - 2902802



EV charge control is used to charge electrical vehicles on the 3-phase AC mains power supply according to IEC 61851-1 Mode 3. All necessary control functions are integrated. Additional functions are available for various charging applications.

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### Adhesive label

## Socket Outlet - EV-T2M3SO12-4P-P - 1164299

### Accessories

Label - EV-LABEL-C-SO - 1315521



CHARX connect, Label, for AC charging cables and infrastructure charging sockets, DIN EN 17186, Marking C for AC type 2 infrastructure charging plugs and type 2 infrastructure charging sockets

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### Arrester combination

Lightning/surge arrester type 1/2 - VAL-EV-T1/T2 264/12.5/3+1 - 1180149



CHARX protect: pluggable lightning current arrester/surge protective device, in accordance with Type 1/2 / Class I/II, for 3-phase power supply networks with separate N and PE (5-conductor system: L1, L2, L3, N, PE). Specifically designed for use in e-mobility.

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Lightning/surge arrester type 1/2 - VAL-EV-T1/T2 264/12.5/3+1-R - 1180150



CHARX protect: pluggable lightning current arrester/surge protective device, in accordance with Type 1/2 / Class I/II, for 3-phase power supply networks with separate N and PE (5-conductor system: L1, L2, L3, N, PE), with remote indication contact. Specifically designed for use in e-mobility.

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Type 2 surge arrester - VAL-EV-T2 280/3+1 - 1180144



CHARX protect: pluggable surge protective device, in accordance with Type 2 / Class II, for 3-phase power supply networks with separate N and PE (5-conductor system: L1, L2, L3, N, PE). Specifically designed for use in e-mobility.

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Type 2 surge arrester - VAL-EV-T2 280/3+1-R - 1180145



CHARX protect: pluggable surge protective device, in accordance with Type 2 / Class II, for 3-phase power supply networks with separate N and PE (5-conductor system: L1, L2, L3, N, PE), with remote indication contact. Specifically designed for use in e-mobility.

## Socket Outlet - EV-T2M3SO12-4P-P - 1164299

### Accessories

#### Assembly tool

##### Tool - EV-T2M3SO-CAP-REMOVER - 1286836

CHARX connect, tool for opening the optional cap for attachment to the back of the Generation 2.0 Basic infrastructure charging socket with functions for strain relief and touch protection.

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#### Cable set

##### Cable set - EV-T2M3SOW-1AC32A-0,3M6,0E - 1164343



CHARX connect, Cable set, Cables with slip-on sleeves on one end, Only for connection to generation 2 infrastructure charging sockets from Phoenix Contact, Type 2, IEC 62196-2, 32 A / 250 V (AC), Single wires, length: 0.3 m, Generation 2

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##### Cable set - EV-T2M3SOW-3AC20A-0,3M2,5E - 1164355



CHARX connect, Cable set, Cables with slip-on sleeves on one end, Only for connection to generation 2 infrastructure charging sockets from Phoenix Contact, Type 2, IEC 62196-2, 20 A / 480 V (AC), Single wires, length: 0.3 m, Generation 2

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##### Cable set - EV-T2M3SOW-3AC32A-0,3M6,0E - 1164362



CHARX connect, Cable set, Cables with slip-on sleeves on one end, Only for connection to generation 2 infrastructure charging sockets from Phoenix Contact, Type 2, IEC 62196-2, 32 A / 480 V (AC), Single wires, length: 0.3 m, Generation 2

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##### Cable set - EV-T2M3SOW-1AC32A-0,7M6,0E - 1164344



CHARX connect, Cable set, Cables with slip-on sleeves on one end, Only for connection to generation 2 infrastructure charging sockets from Phoenix Contact, Type 2, IEC 62196-2, 32 A / 250 V (AC), Single wires, length: 0.7 m, Generation 2

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## Socket Outlet - EV-T2M3SO12-4P-P - 1164299

### Accessories

Cable set - EV-T2M3SOW-3AC20A-0,7M2,5E - 1164361



CHARX connect, Cable set, Cables with slip-on sleeves on one end, Only for connection to generation 2 infrastructure charging sockets from Phoenix Contact, Type 2, IEC 62196-2, 20 A / 480 V (AC), Single wires, length: 0.7 m, Generation 2

Cable set - EV-T2M3SOW-3AC32A-0,7M6,0E - 1164365



CHARX connect, Cable set, Cables with slip-on sleeves on one end, Only for connection to generation 2 infrastructure charging sockets from Phoenix Contact, Type 2, IEC 62196-2, 32 A / 480 V (AC), Single wires, length: 0.7 m, Generation 2

### Protective cover for Socket Outlet

Protective covers - EV-T2SOC-P - 1164297



CHARX connect, Protective covers, self-closing, rear protective cover screw connection, with LED status indicator within the protective cover, for attaching to infrastructure charging sockets, Type 2, IEC 62196-2, Front mounting, screwed on the back, M5 thread, Premium, Embossed PHOENIX CONTACT logo

Strain relief - EV-T2M3SO-CAP - 1202424



CHARX connect, Strain relief, Touch protection, For generation 2.0 infrastructure charging socket, For plugging onto the rear of the infrastructure charging socket, Type 2, IEC 62196-2, Generation 2

# Socket Outlet - EV-T2M3SO24-4P-B - 1298488

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CHARX connect, Socket Outlet, rear protective cover screw connection, can be reconnected, For charging electric vehicles (EV) with alternating current (AC), Compatible with infrastructure charging plugs, Type 2, IEC 62196-2, 32 A / 480 V (AC), without cable, 4-position, Rear panel mounting, Basic, "PHOENIX CONTACT" logo

The figure shows a product version of the article

## Product Description

Infrastructure Socket Outlet 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

- Protected against overheating with precise temperature measurement
- Flexible mounting and easy maintenance with plug-in cables
- Available with your logo on request – for consistent branding of your charging station
- Waterproof and dirtproof due to fully molded contacts
- Developed and produced in accordance with the IATF 16949 automotive standard and ISO 9001
- Uniform, space-saving installation space



## Key Commercial Data

Packing unit	1
GTIN	
GTIN	4063151537265
Custom tariff number	85366990

## Technical data

### Product definition

Type	rear protective cover screw connection
	can be reconnected

# Socket Outlet - EV-T2M3SO24-4P-B - 1298488

## Technical data

### Product definition

Application	For charging electric vehicles (EV) with alternating current (AC)
	Compatible with infrastructure charging plugs
Affixed logo	"PHOENIX CONTACT" logo
Design	Basic
Standards/regulations	IEC 62196-2
Charging standard	Type 2
Charging mode	Mode 3, Case B
Note on the connection method	Connection via spade connector, separable

### Dimensions

Bore dimensions	60 mm x 60 mm
Type of conductor	without cable

### Ambient conditions

Ambient temperature (operation)	-30 °C ... 50 °C
Ambient temperature (storage/transport)	-40 °C ... 80 °C
Max. altitude	5000 m (above sea level)
Degree of protection	IP44 (plugged in)
	IP54 (with protective cover, see accessories)

### Electrical properties

Charging power (nominal operation)	22 kW
Type of charging current	AC 3-phase
Number of phases	3
Number of power contacts	5 (L1, L2, L3, N, PE)
Rated current of power contacts	32 A
Rated voltage for power contacts	480 V AC
Number of signal contacts	2 (CP, PP)
Rated current for signal contacts	2 A
Rated voltage for signal contacts	30 V AC
Type of signal transmission	Pulse width modulation
Note on the connection method	Connection via spade connector, separable

### Mechanical properties

Insertion/withdrawal cycles	> 10000
Insertion force	< 100 N
Withdrawal force	< 100 N

### Mounting

Possible mounting positions	Rear panel mounting
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# Socket Outlet - EV-T2M3SO24-4P-B - 1298488

## Technical data

### Mounting

Restrictions to mounting position	Only 0 to 90 degree frontal inclination possible, see figure
Mounting position of the locking actuator	Top center position
Screw connection of a protective cover	Only rear mounting possible
Max. wall thickness	max. 50 mm (Rear panel mounting, normative maximum specification for infrastructure plug)
	max. 28 mm (Rear mounting, normative maximum specification for infrastructure plug when using protective cover 1405217)
Mounting hole diameter	7.00 mm (ø)
Screws included in the scope of delivery	none

### Design

Design line	Basic
Housing color	black

### Material

Material	Plastic
Material surface of contacts	Ag

### Locking

Locking type	Locking in the inserted state with a locking mechanism
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### Locking actuator

Number of positions of the connectors	4
Operating voltage	24 V (Typical power supply at the motor)
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 <sup>2</sup>
Lock recognition	available
Mechanical emergency release	available

### Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 10;

# Socket Outlet - EV-T2M3SO24-4P-B - 1298488

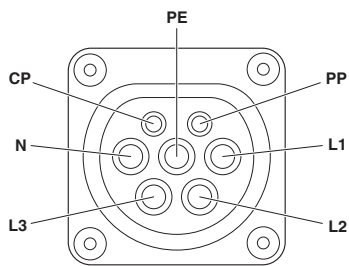
## Technical data

### Environmental Product Compliance

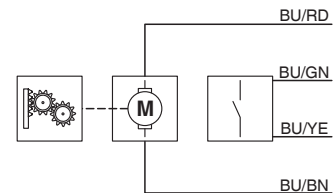
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"
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## Drawings

Connection diagram



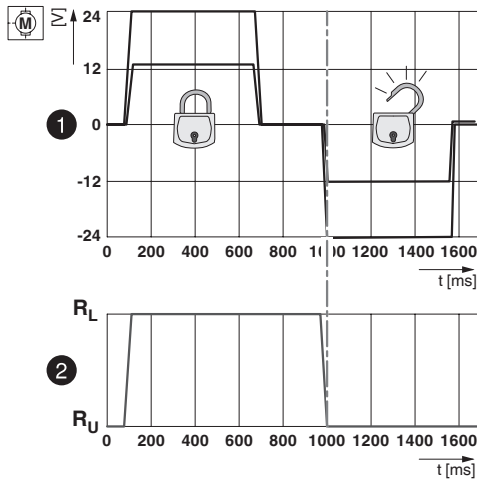
Block diagram



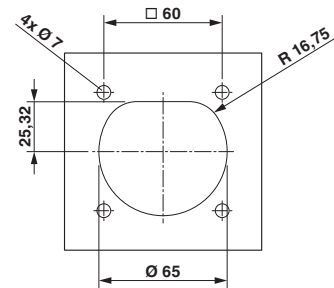
Block diagram of the locking actuator

### Pin assignment of Infrastructure Socket Outlet

Diagram



Schematic diagram

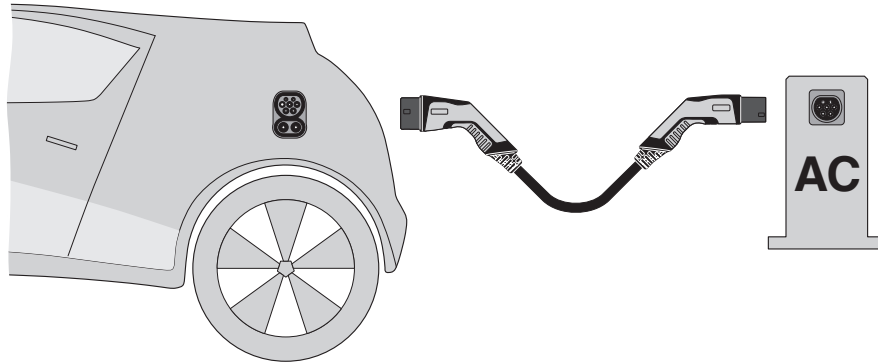


Hole image

### Locking states of the locking actuator

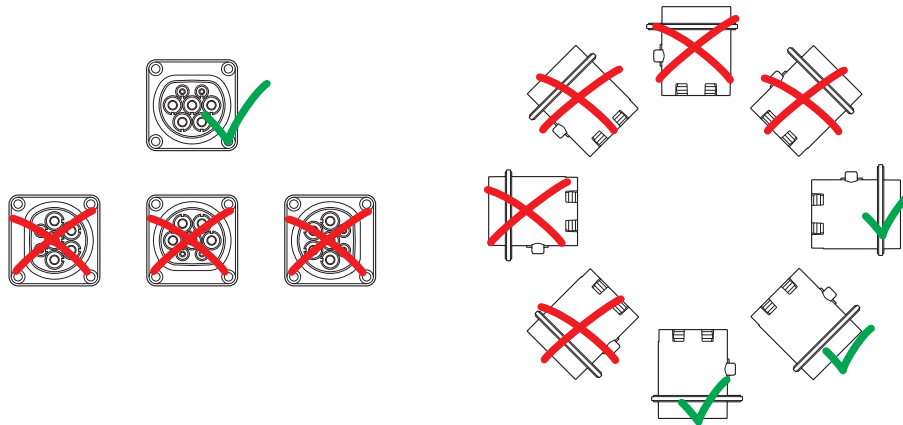
# Socket Outlet - EV-T2M3SO24-4P-B - 1298488

Schematic diagram



## Operating instructions

Schematic diagram



## Installation positions

## Classifications

eCl@ss

eCl@ss 11.0	27144706
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ETIM

ETIM 7.0	EC002898
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## Accessories

Accessories

AC charging controller

## Socket Outlet - EV-T2M3SO24-4P-B - 1298488

### Accessories

#### AC charging controller - CHARX SEC-1000 - 1139034



CHARX control modular, AC charging controller according to IEC 61851-1. Configurable charging controller. operating mode Stand-alone or client. interface: CHARX control modular system bus. Connectable peripheral devices: Energy meter, RFID, DC residual current detection. DIN rail mounting

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#### AC charging controller - CHARX SEC-3000 - 1139022



CHARX control modular, AC charging controller according to IEC 61851-1. Embedded Linux system. operating mode Stand-alone, server, or client. interface: Ethernet (2x), CHARX control modular system bus, MICRO-USB type C. communication protocol: OCPP 1.6J, Modbus/TCP, MQTT. Connectable peripheral devices: Energy meter, RFID, DC residual current detection. DIN rail mounting

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#### AC charging controller - CHARX SEC-3050 - 1139018



CHARX control modular, AC charging controller according to IEC 61851-1, ISO/IEC 15118. Embedded Linux system. operating mode Stand-alone, server, or client. interface: Ethernet (2x), CHARX control modular system bus, MICRO-USB type C. communication protocol: OCPP 1.6J, Modbus/TCP, MQTT. Connectable peripheral devices: Energy meter, RFID, DC residual current detection. DIN rail mounting

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#### AC charging controller - CHARX SEC-3100 - 1139012



CHARX control modular, AC charging controller according to IEC 61851-1. Embedded Linux system. operating mode Stand-alone, server, or client. interface: Ethernet (2x), Cellular communication (4G/2G), CHARX control modular system bus, MICRO-USB type C. communication protocol: OCPP 1.6J, Modbus/TCP, MQTT. Connectable peripheral devices: Energy meter, RFID, DC residual current detection. DIN rail mounting

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#### AC charging controller - CHARX SEC-3150 - 1138965



CHARX control modular, AC charging controller according to IEC 61851-1, ISO/IEC 15118. Embedded Linux system. operating mode Stand-alone, server, or client. interface: Ethernet (2x), Cellular communication (4G/2G), CHARX control modular system bus, MICRO-USB type C. communication protocol: OCPP 1.6J, Modbus/TCP, MQTT. Connectable peripheral devices: Energy meter, RFID, DC residual current detection. DIN rail mounting

## Socket Outlet - EV-T2M3SO24-4P-B - 1298488

### Accessories

AC charging controller - EM-CP-PP-ETH - 2902802



EV charge control is used to charge electrical vehicles on the 3-phase AC mains power supply according to IEC 61851-1 Mode 3. All necessary control functions are integrated. Additional functions are available for various charging applications.

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### Adhesive label

Label - EV-LABEL-C-SO - 1315521



CHARX connect, Label, for AC charging cables and infrastructure charging sockets, DIN EN 17186, Marking C for AC type 2 infrastructure charging plugs and type 2 infrastructure charging sockets

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### Arrester combination

Lightning/surge arrester type 1/2 - VAL-EV-T1/T2 264/12.5/3+1 - 1180149



CHARX protect: pluggable lightning current arrester/surge protective device, in accordance with Type 1/2 / Class I/II, for 3-phase power supply networks with separate N and PE (5-conductor system: L1, L2, L3, N, PE). Specifically designed for use in e-mobility.

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Lightning/surge arrester type 1/2 - VAL-EV-T1/T2 264/12.5/3+1-R - 1180150



CHARX protect: pluggable lightning current arrester/surge protective device, in accordance with Type 1/2 / Class I/II, for 3-phase power supply networks with separate N and PE (5-conductor system: L1, L2, L3, N, PE), with remote indication contact. Specifically designed for use in e-mobility.

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Type 2 surge arrester - VAL-EV-T2 280/3+1 - 1180144



CHARX protect: pluggable surge protective device, in accordance with Type 2 / Class II, for 3-phase power supply networks with separate N and PE (5-conductor system: L1, L2, L3, N, PE). Specifically designed for use in e-mobility.

# Socket Outlet - EV-T2M3SO24-4P-B - 1298488

## Accessories

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Type 2 surge arrester - VAL-EV-T2 280/3+1-R - 1180145



CHARX protect: pluggable surge protective device, in accordance with Type 2 / Class II, for 3-phase power supply networks with separate N and PE (5-conductor system: L1, L2, L3, N, PE), with remote indication contact. Specifically designed for use in e-mobility.

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## Assembly tool

Tool - EV-T2M3SO-CAP-REMOVER - 1286836

CHARX connect, tool for opening the optional cap for attachment to the back of the Generation 2.0 Basic infrastructure charging socket with functions for strain relief and touch protection.

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## Cable set

Cable set - EV-T2M3SOW-1AC32A-0,3M6,0E - 1164343



CHARX connect, Cable set, Cables with slip-on sleeves on one end, Only for connection to generation 2 infrastructure charging sockets from Phoenix Contact, Type 2, IEC 62196-2, 32 A / 250 V (AC), Single wires, length: 0.3 m, Generation 2

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Cable set - EV-T2M3SOW-3AC20A-0,3M2,5E - 1164355



CHARX connect, Cable set, Cables with slip-on sleeves on one end, Only for connection to generation 2 infrastructure charging sockets from Phoenix Contact, Type 2, IEC 62196-2, 20 A / 480 V (AC), Single wires, length: 0.3 m, Generation 2

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Cable set - EV-T2M3SOW-3AC32A-0,3M6,0E - 1164362



CHARX connect, Cable set, Cables with slip-on sleeves on one end, Only for connection to generation 2 infrastructure charging sockets from Phoenix Contact, Type 2, IEC 62196-2, 32 A / 480 V (AC), Single wires, length: 0.3 m, Generation 2

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## Socket Outlet - EV-T2M3SO24-4P-B - 1298488

### Accessories

Cable set - EV-T2M3SOW-1AC32A-0,7M6,0E - 1164344



CHARX connect, Cable set, Cables with slip-on sleeves on one end, Only for connection to generation 2 infrastructure charging sockets from Phoenix Contact, Type 2, IEC 62196-2, 32 A / 250 V (AC), Single wires, length: 0.7 m, Generation 2

Cable set - EV-T2M3SOW-3AC20A-0,7M2,5E - 1164361



CHARX connect, Cable set, Cables with slip-on sleeves on one end, Only for connection to generation 2 infrastructure charging sockets from Phoenix Contact, Type 2, IEC 62196-2, 20 A / 480 V (AC), Single wires, length: 0.7 m, Generation 2

Cable set - EV-T2M3SOW-3AC32A-0,7M6,0E - 1164365



CHARX connect, Cable set, Cables with slip-on sleeves on one end, Only for connection to generation 2 infrastructure charging sockets from Phoenix Contact, Type 2, IEC 62196-2, 32 A / 480 V (AC), Single wires, length: 0.7 m, Generation 2

### Protective cover for Socket Outlet

Protective covers - EV-T2SOC-B - 1164293



CHARX connect, Protective covers, self-closing, rear protective cover screw connection, for attaching to infrastructure charging sockets, Type 2, Front mounting, screwed on the back, M5 thread, Basic, Embossed PHOENIX CONTACT logo

Strain relief - EV-T2M3SO-CAP - 1202424



CHARX connect, Strain relief, Touch protection, For generation 2.0 infrastructure charging socket, For plugging onto the rear of the infrastructure charging socket, Type 2, IEC 62196-2, Generation 2

