

# AC charging cable - EV-T2G3C-3AC20A-8,0M2,5ESBK01

1051542

<https://www.phoenixcontact.com/gb/products/1051542>

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CHARX connect, AC charging cable with vehicle charging connector and open cable end, with protective cap, Housing color black-gray, for charging electric vehicles (EV) with alternating current (AC) via type 2 vehicle charging inlets, for installation at charging stations for electromobility (EVSE), Type 2, IEC 62196-2, 20 A / 480 V (AC), C-Line, "PHOENIX CONTACT" logo, cable: 8 m, black, straight, NOTE: Cable management may be required.

## Product Description

AC charging cable with Vehicle Connector and open cable end for charging electric vehicles (EV) with alternating current (AC) via type 2 Vehicle Inlets, for installation at charging stations for E-Mobility (EVSE)

## Your advantages

- Complete product range
- Convenient handling due to the ergonomic, triple award-winning design
- Available with your logo on request – for consistent branding of your charging station
- Longitudinal water tightness reliably prevents water ingress
- Developed and produced in accordance with the IATF 16949 automotive standard and ISO 9001
- Tested in accordance with automotive standards LV124, LV214, and LV215-2
- Tested in accordance with EV Ready 37 requirements
- Laser-marked mating face in accordance with DIN EN 17186

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## Commercial Data

Item number	1051542
Packing unit	1 pc
Minimum order quantity	1 pc
Sales Key	XWBAAC
Product Key	XWBAAC
GTIN	4055626673547
Weight per Piece (including packing)	2,406 g
Weight per Piece (excluding packing)	2,400 g
Customs tariff number	85444290
Country of origin	PL

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## Technical Data

### Product properties

Product type	AC charging cable
Application	for charging electric vehicles (EV) with alternating current (AC) via type 2 vehicle charging inlets for installation at charging stations for electromobility (EVSE)
Type	AC charging cable with vehicle charging connector and open cable end with protective cap Housing color black-gray
Affixed logo	"PHOENIX CONTACT" logo
Charging mode	Mode 3, Case C
Charging standard	Type 2

### Electrical properties

Number of phases	3
Type of signal transmission	Pulse width modulation
Type of charging current	AC 3-phase
Note on the connection method	Crimp connection, cannot be disconnected
Coding	680 $\Omega$ (between PE and PP)
Maximum capacity	16.63 kW

### Power contact

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

### Signal contact

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

### Dimensions

Dimensional drawing	
Width	70 mm (Vehicle charging connector)
Height	137 mm (Vehicle charging connector)
Depth	215.9 mm (Vehicle charging connector)

### Material specifications

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Housing material	Plastic
Material of grip body	Soft plastic
Material protective cap	Soft plastic
Material mating face	Plastic
Material surface of contacts	Ag

## Design

Color Housing	black
Color Connection profile	black
Color Handle area	gray
Color Protective cap	black
Customer variations	On request

## Cable / line

Cable length	8 m
Wiring standards/regulations	prEN 50620 / DIN EN 50620
Wiring certifications	VDE
Cable weight	max. 250 kg/km
Type of cable	straight
Cable structure	5 x 2.5 mm <sup>2</sup> + 1 x 0.5 mm <sup>2</sup>
Cable type	Class 5
External cable diameter	12.8 mm ±0.4 mm
Outer sheath, material	TPE-U
External sheath, color	black
Conductor resistance	≤ 0.00798 Ω/m (based on a power core, at an ambient temperature of 20°C)

## Cable structure

Stripping length of the sheath	70 mm ±5 mm
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## Mechanical properties

### Design

Design	C-Line
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### Mechanical data

Insertion force	< 100 N
Withdrawal force	< 100 N

### Design

Design	C-Line
Customer variations	On request

## Environmental and real-life conditions

### Ambient conditions

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

## Standards and regulations

### Connection in accordance with standard

Normative cable length restrictions	NOTE: Cable management may be required.
	Cable management is required in certain regions if the cable length exceeds 5.0 m (Switzerland) or 7.5 m (USA) (IEC 61851-1).

### Standards

Standards/regulations	IEC 62196-2
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# AC charging cable - EV-T2G3C-3AC20A-8,0M2,5ESBK01

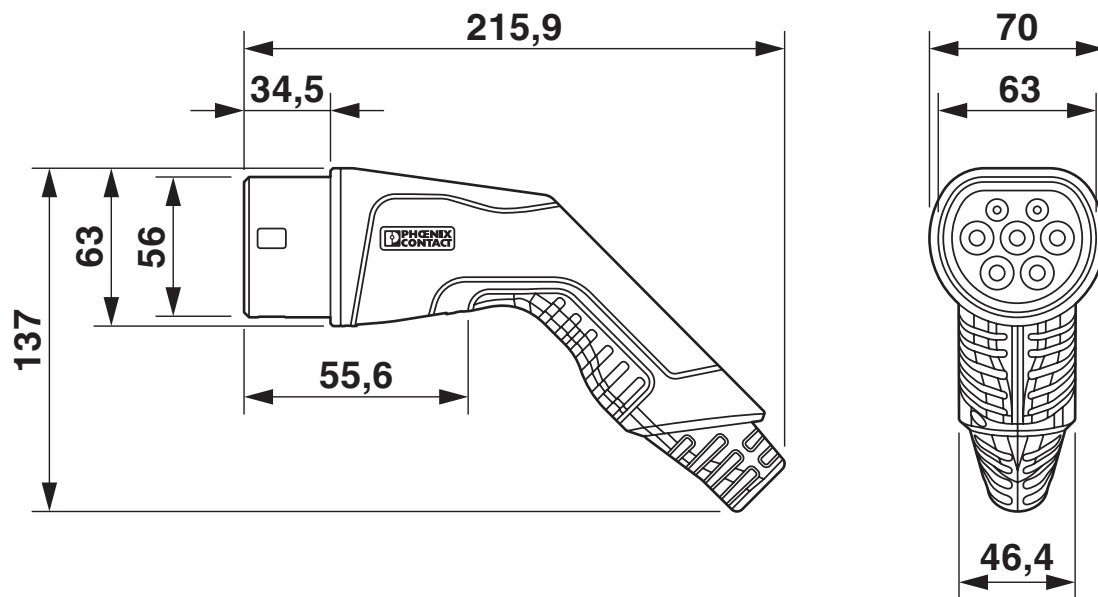


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## Drawings

Dimensional drawing



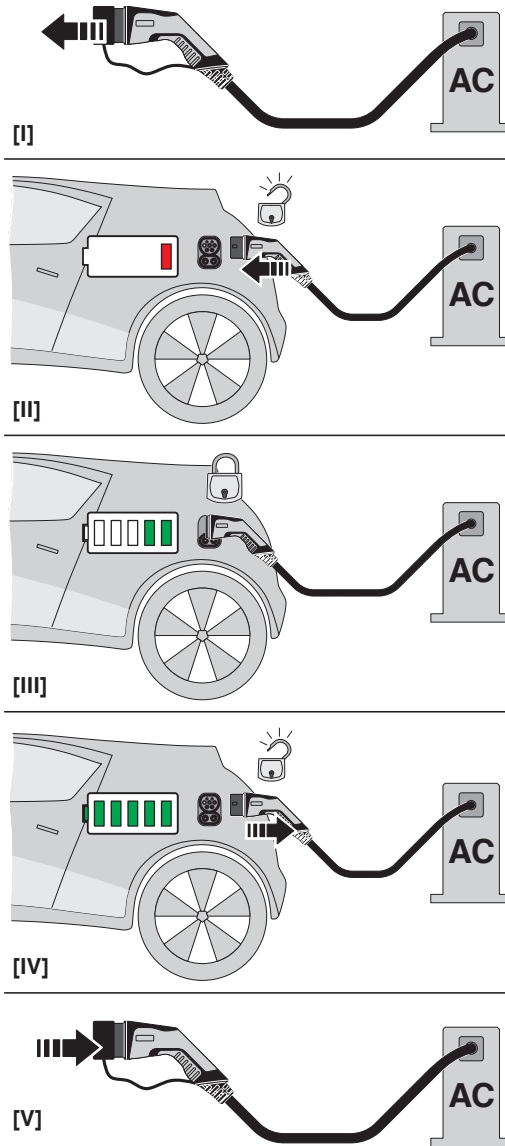
Make sure that the vehicle charging connector is placed in an appropriate charging connector holder, which ensures a minimum protection rating of IP24 in accordance with IEC 61851-1, for the entire time between charging. To create this charging connector holder, use the dimensions of the vehicle charging connector. Detailed dimensions can also be found in the Download area.

# AC charging cable - EV-T2G3C-3AC20A-8,0M2,5ESBK01

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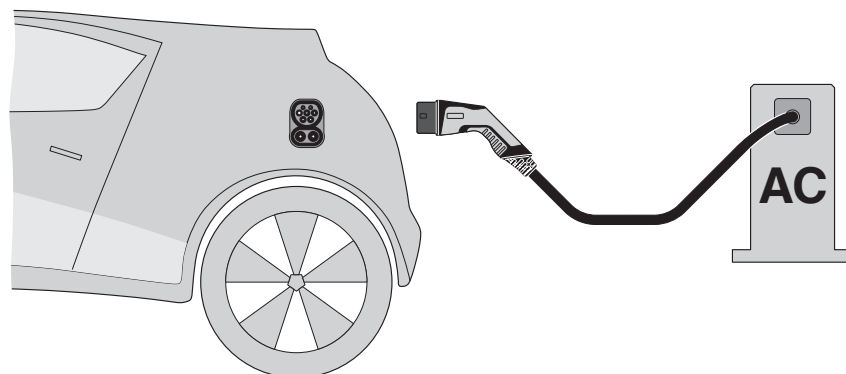
<https://www.phoenixcontact.com/gb/products/1051542>

Schematic diagram



## Operating instructions

Schematic diagram



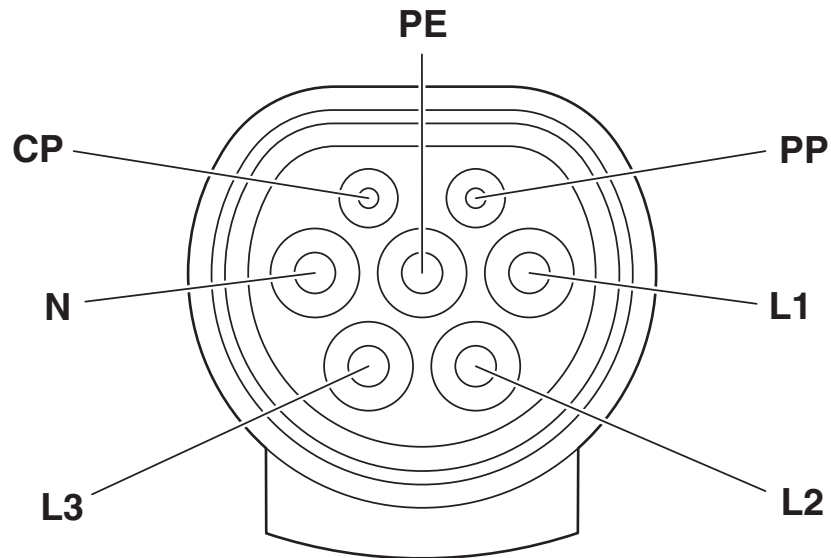
## Terminology definition

# AC charging cable - EV-T2G3C-3AC20A-8,0M2,5ESBK01

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Schematic diagram



Pin assignment of the Vehicle Connector



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## Approvals

 <b>IECEE CB Scheme</b> Approval ID: DE1-61066/M1	Nominal Voltage $U_N$	Nominal Current $I_N$	Cross Section AWG	Cross Section $\text{mm}^2$
	480 V	20 A	-	-

 <b>VDE Zeichengenehmigung</b> Approval ID: 40045387	Nominal Voltage $U_N$	Nominal Current $I_N$	Cross Section AWG	Cross Section $\text{mm}^2$
	480 V	20 A	-	-

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## Classifications

### ECLASS

ECLASS-9.0	27144705
ECLASS-10.0.1	27144705
ECLASS-11.0	27144705

### ETIM

ETIM 8.0	EC002897
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### UNSPSC

UNSPSC 21.0	39121522
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## 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"

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## Accessories

### Measuring instrument

Measuring instrument - EEM-EM357 - 2908588

<https://www.phoenixcontact.com/gb/products/2908588>

Three-phase power meter for active power measurement with direct measurement in networks of up to 500 V / 80 A, with S0 output, with digital input and RS-485 interface, certified in accordance with the MID directive



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### Cable gland

Cable gland - G-INS-M20-M68N-PNES-BK - 1424481

<https://www.phoenixcontact.com/gb/products/1424481>

Cable gland, cable gland material: PA, external cable diameter 10 mm ... 14 mm, shielding: no, connecting thread: M20 x 1.5, color: jet black RAL 9005



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## Type 2 surge arrester

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

<https://www.phoenixcontact.com/gb/products/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

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

<https://www.phoenixcontact.com/gb/products/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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## AC charging controller

AC charging controller - CHARX SEC-1000 - 1139034

<https://www.phoenixcontact.com/gb/products/1139034>



CHARX control modular, AC charging controller according to IEC 61851-1. Standard. 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

AC charging controller - CHARX SEC-3000 - 1139022

<https://www.phoenixcontact.com/gb/products/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 cable - EV-T2G3C-3AC20A-8,0M2,5ESBK01

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## AC charging controller

AC charging controller - CHARX SEC-3050 - 1139018

<https://www.phoenixcontact.com/gb/products/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

AC charging controller - CHARX SEC-3100 - 1139012

<https://www.phoenixcontact.com/gb/products/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 cable - EV-T2G3C-3AC20A-8,0M2,5ESBK01

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## AC charging controller

AC charging controller - CHARX SEC-3150 - 1138965

<https://www.phoenixcontact.com/gb/products/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

AC charging controller - EV-CC-AC1-M3-CC-SER-HS - 1622459

<https://www.phoenixcontact.com/gb/products/1622459>



The EV-CC-AC1-M3-CBC-SER-HS charging controller with housing for DIN rail mounting is used for charging electric vehicles at 3-phase AC networks according to IEC 61851-1, Mode 3. Optimized for charging stations with permanently mounted Vehicle Connector. All charging functions and comprehensive configuration settings are already integrated.



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## AC charging controller

AC charging controller - EV-CC-AC1-M3-CC-SER-PCB - 1622460

<https://www.phoenixcontact.com/gb/products/1622460>



The EV-CC-AC1-M3-CC-SER-PCB charging controller as a PCB for charging electric vehicles on a 3-phase AC power grid according to IEC 61851-1, Mode 3. Optimized for charging stations with permanently mounted Vehicle Connector. All charging functions and comprehensive configuration settings are already integrated.

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## AC charging controller

AC charging controller - EV-CC-AC1-M3-CC-SER-PCB-XC-25X - 1627742

<https://www.phoenixcontact.com/gb/products/1627742>



The EV-CC-AC1-M3-CC-SER-PCB charging controller as a PCB for charging electric vehicles on a 3-phase AC power grid according to IEC 61851-1, Mode 3. Optimized for charging stations with permanently mounted Vehicle Connector. All charging functions and comprehensive configuration settings are already integrated.

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## AC charging controller

AC charging controller - EV-CC-AC1-M3-CC-SER-PCB-MSTB - 1627367

<https://www.phoenixcontact.com/gb/products/1627367>



The EV-CC-AC1-M3-CC-SER-PCB-MSTB charging controller as a PCB for charging electric vehicles according to IEC 61851-1, Mode 3, optimized for charging stations with permanently mounted Vehicle Connector. Connection via PCB connector on header.

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## AC charging controller

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

<https://www.phoenixcontact.com/gb/products/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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## Label

Label - EV-LABEL-C - 1309766

<https://www.phoenixcontact.com/gb/products/1309766>

CHARX connect, Label, accordance to DIN EN 17186, for AC charging cable, DIN EN 17186, Marking C for AC type 2 vehicle charging connectors and type 2 vehicle charging inlets



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## Lightning/surge arrester type 1/2

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

<https://www.phoenixcontact.com/gb/products/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

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

<https://www.phoenixcontact.com/gb/products/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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## Charging connector holder

Charging connector holder - EV-T2AC-PARK - 1624148

<https://www.phoenixcontact.com/gb/products/1624148>



CHARX connect, Charging connector holder, for vehicle charging connectors on charging stations (EVSE), Type 2, IEC 62196-2, Front mounting

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