

# Charging connection systems

Our charging connection systems set the standard when it comes to supplying energy to electric vehicles.

Thanks to silver-plated power and signal contacts, high-precision temperature monitoring, and the integrated locking system, our charging cables, socket outlets, and vehicle inlets are safe and reliable in operation. Thanks to their attractive, ergonomic design, they are easy and comfortable to use.

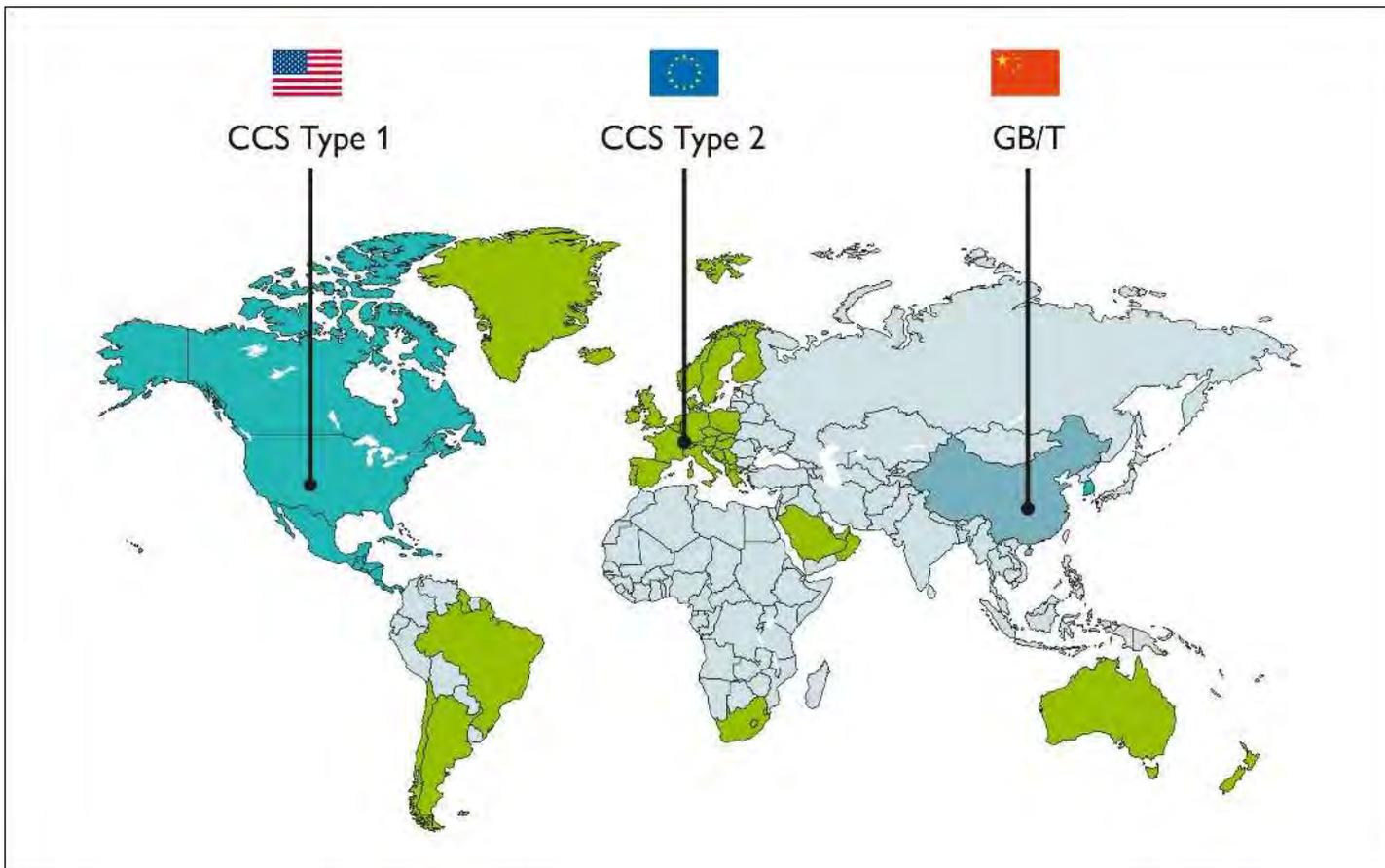
With our High Power Charging technology, we are setting yet another milestone in the history of electromobility by reducing charging time to just a few minutes.

The broad product range takes the three most important charging standards into consideration for all applications worldwide:

- Type 1 for North America and Japan
- Type 2 for Europe and other countries
- GB/T for China

**i** Your web code: [#2073](#)

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Various charging standards, which originated in North America, Europe, and China and have their own specific connector geometries, have become established throughout the world.

We can provide you with the complete range of charging cables and vehicle inlets for any region from a single source – both for conventional charging on the alternating current (AC) power grid and for fast charging with direct current (DC).

Thanks to our involvement in developing the Combined Charging System (CCS), AC and DC charging with just one vehicle inlet is now possible throughout most of the world.

Thanks to the common geometry of their mating faces, both AC and DC charging connectors fit into the same vehicle inlet. Therefore, automobile manufacturers only have to design one inlet for their vehicles. Furthermore, the charging process itself is easier for the driver to handle.

The system is also incredibly safe, thanks to the electromechanical locking system on the charging connector and the integrated, high-precision temperature monitoring function.

Along with the charging standards, the IEC 61851 standard also defines four different charging modes. Here, charging modes 1 to 3 only apply to AC charging, with charging mode 3 being further subdivided into charging cases A, B, and C. Charging mode 4 describes DC charging.

The charging modes covered by the Phoenix Contact product portfolio are illustrated to the right.

**i** Your web code: #2110



### CCS type 1

The type 1 version of the Combined Charging System in accordance with SAE J1772 and IEC 62196-3 is used in North America, and is also becoming popular in South Korea. The mating faces of the AC and DC charging connectors are identical on the AC side and therefore fit into the same CCS vehicle inlet.



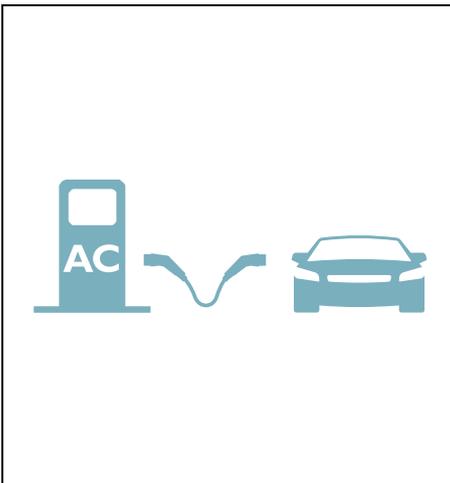
### CCS type 2

The type 2 version of the Combined Charging System in accordance with IEC 62196-3 was specified by the European Commission as a uniform standard throughout Europe in 2013. In the meantime, this standard has also become established in Greenland, South America, South Africa, Saudi Arabia, and Australia. The mating faces of the AC and DC charging connectors are identical on the AC side and therefore fit into the same CCS vehicle inlet.



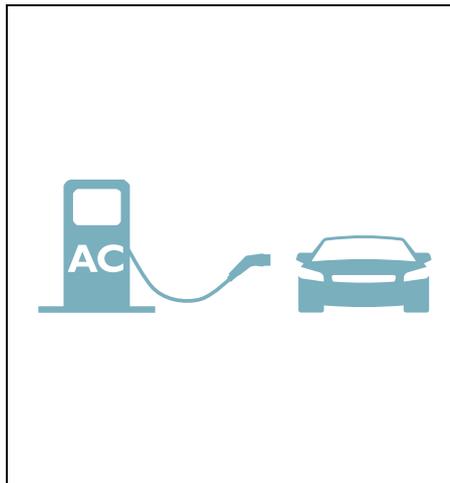
### GB/T

The GB/T 20234 charging standard is only used in China. AC and DC charging connectors have different mating faces, meaning that separate AC and DC inlets are required in the vehicle.



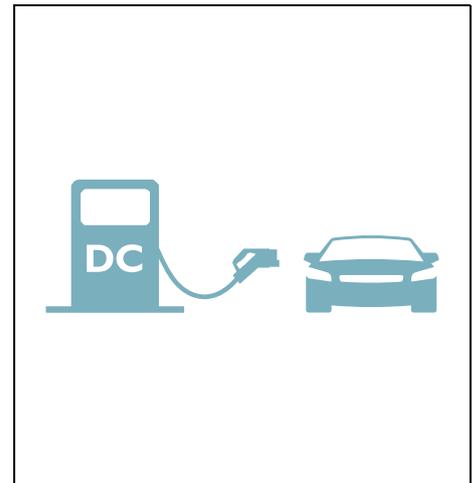
### Charging mode 3, case B

In charging mode 3, the vehicle is charged with AC at a charging station or wall box. Charging case B requires a mobile AC charging cable that has a connector at both ends: one end is equipped with vehicle charging connector that plugs into the vehicle inlet. The other end is equipped with infrastructure charging plug and plugs into the charging outlet on the charging station.



### Charging mode 3, case C

In charging mode C, a charging cable that is permanently connected to the charging station is used. The charging cable therefore only has a connector at one end – the vehicle charging connector that plugs into the vehicle inlet.



### Charging mode 4

This charging mode describes direct current (DC) charging. Increased safety requirements apply due to the particularly high charging power involved. Therefore, with this mode, only a charging cable that is permanently connected to the charging station is used – a plug-in connection is only equipped on the vehicle side.



### Short charging stops, thanks to high power transmission

The development of a widespread charging infrastructure for electric vehicles in conjunction with renewable energy is an important step toward a mobile future. The focus here is on integrating the charging process into everyday life. Situations involving short stops to charge, for example at rest stops en route, require a charging infrastructure with high power transmission and reliable safety mechanisms. In comparison with AC charging, DC charging enables a significantly higher power transmission, and is therefore the ideal solution for short charging stops during long journeys.

### Powerful charging cables

We provide a comprehensive range of powerful and standard-compliant charging cables for global fast DC charging. The DC charging cables have a free cable end so that they can be connected permanently to the charging station in accordance with charging mode 4. Depending on the charging standard, powers of up to 250 kW are supported. The integrated sensors enable precise temperature monitoring, thereby guaranteeing a safe charging process.

### Your advantages

- Comprehensive product range for CCS type 1, CCS type 2, and GB/T
- Efficient power transmission and long-term stability, thanks to silver-plated power and signal contacts
- Integrated sensor technology for monitoring the temperature at the power contacts
- Convenient handling, thanks to the ergonomic handle and additional rubber grip components
- Developed and produced in accordance with the IATF 16949 automotive standard and ISO 9001

**i** Your web code: [#2099](#)



**CCS type 1**

CCS type 1 charging cables in accordance with SAE J1772 and IEC 62196-3 allow for fast DC charging in North American and other AWG charging infrastructures. They are equipped with UL-certified AWG cables and a lever locking mechanism for locking. If the lever is actuated during the charging process, communication takes place to interrupt the power between the vehicle and charging station.



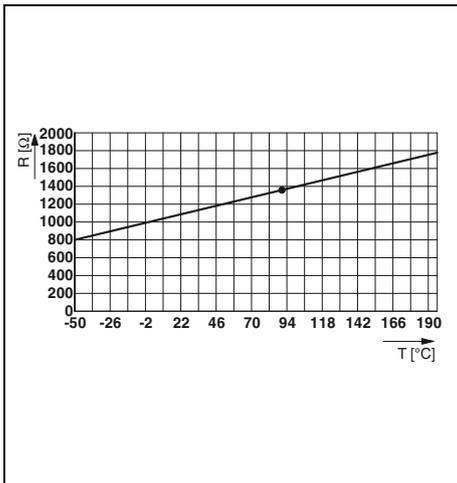
**CCS type 2**

In 2013, CCS type 2 charging cables in accordance with IEC 62196-3 marked an important milestone in European fast-charging technology. During the charging process, the charging cables lock electromechanically with a bolt that can withstand high pull-out forces by means of a locking actuator integrated into the vehicle inlet. The cables are metric and VDE-certified.



**GB/T**

DC charging cables in accordance with GB/T 20234.3-2015 are used for fast charging in the Chinese charging infrastructure. In addition to metric cables, they include a unique locking mechanism developed by Phoenix Contact that is integrated into the vehicle charging connector. The locking mechanism, which is controlled by the charging station, prevents the lever on the vehicle charging connector from being actuated during the charging process.



**High-precision temperature measuring**

The integrated temperature sensors in the vehicle charging connector send a pulse to the charging station to switch off the charging current in the event of a fault (e.g. in the event of soiling) in good time.



**Secure locking during charging**

Fast charging technology involves the transmission of high charging currents. It is therefore essential to safeguard against disconnection under load during the charging process. The vehicle charging connectors are protected with highly efficient locking mechanisms.



**Secure hold between charging processes**

Matching holders for DC charging cables are mounted on the outside of the charging station or wall box. They ensure the vehicle charging connector is held securely in place and protected from the elements whenever charging is not taking place. The holders are listed in the "Accessories" section.

# Charging connection systems

## DC charging cables

### CCS type 2

- Charging in just a few minutes
- Charging cables for European charging infrastructure

**Notes:**  
Upon request, we can also supply charging connectors with your company logo, as well as further cable types and lengths.

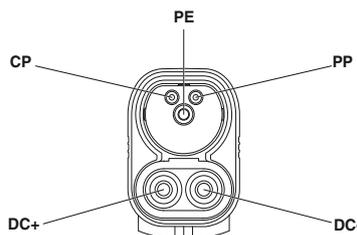


With a metric cable



With a metric cable

	Technical data		Technical data		Technical data	
	80 A	150 A	200 A			
Rated voltage	1000 V DC	1000 V DC	1000 V DC			
Rated current	80 A	150 A	200 A			
Standards	IEC 62196-3	IEC 62196-3	IEC 62196-3			
Charging mode	Mode 4	Mode 4	Mode 4			
Resistor coding	1500 Ω (between PE and PP)	1500 Ω (between PE and PP)	1500 Ω (between PE and PP)			
Ambient temperature (operation)	-30°C ... 50°C	-30°C ... 50°C	-30°C ... 50°C			
Number of power contacts	3 (PE, DC+, DC-)	3 (PE, DC+, DC-)	3 (PE, DC+, DC-)			
Insertion/withdrawal cycles	> 10,000	> 10,000	> 10,000			
Insertion/withdrawal force	< 100 N	< 100 N	< 100 N			
Temperature sensor	Pt 1000	Pt 1000	Pt 1000			
Degree of protection (when plugged in)	IP44	IP44	IP44			
<b>Cable data</b>						
Cable type	straight	straight	straight			
Cable length	5 m	5 m	5 m			
Cable diameter	18.4 mm ±0,3 mm	28 mm ±0.4 mm	32.4 mm ±0.2 mm			
Cable structure	3 x 16 mm <sup>2</sup> + 3 x 2 x 0.75 mm <sup>2</sup>	2 x 50 mm <sup>2</sup> + 1 x 25 mm <sup>2</sup> + 3 x 2 x 0.75 mm <sup>2</sup>	2 x 70 mm <sup>2</sup> + 1 x 35 mm <sup>2</sup> + 3 x 2 x 0.75 mm <sup>2</sup>			
Sheath color	black	black	black			
<b>Ordering data</b>						
Description	<b>Order No.</b>	<b>Pcs./Pkt.</b>	<b>Order No.</b>	<b>Pcs./Pkt.</b>	<b>Order No.</b>	<b>Pcs./Pkt.</b>
	80 A		150 A		200 A	
DC charging cable with open cable end, Combined Charging System (CCS)	1095764	1	1095767	1	1095775	1
<b>Accessories</b>						
Description	<b>Type</b>	<b>Order No.</b>	<b>Pcs./Pkt.</b>	<b>Type</b>	<b>Order No.</b>	<b>Pcs./Pkt.</b>
	Holder Without vehicle charging connector recognition	EV-T2CCS-PARK	1624153	1	EV-T2CCS-PARK	1624153



Vehicle charging connector pin assignment

### GB/T

- Charging in just a few minutes
- Charging cables for the Chinese charging infrastructure
- Vehicle charging connectors with integrated locking and a protective cap

**Notes:**  
Upon request, we can also supply charging connectors with your company logo, as well as further cable types and lengths.

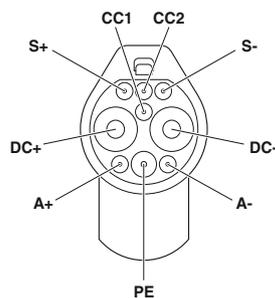


GB/T DC vehicle charging connector, with a metric cable



GB/T DC vehicle charging connector, with a metric cable

	Technical data		Technical data	
	80 A	125 A	180 A	250 A
Rated voltage	1000 V DC	1000 V DC	1000 V DC	1000 V DC
Rated current	80 A	125 A	180 A	250 A
Standards	GB/T 20234.1-2015, GB/T 20234.3-2015	GB/T 20234.1-2015, GB/T 20234.3-2015	GB/T 20234.1-2015, GB/T 20234.3-2015	GB/T 20234.1-2015, GB/T 20234.3-2015
Charging mode	Mode 4	Mode 4	Mode 4	Mode 4
Resistor coding	1000 Ω (between PE and CC1 / PE and CC2)	1000 Ω (between PE and CC1 / PE and CC2)	1000 Ω (between PE and CC1 / PE and CC2)	1000 Ω (between PE and CC1 / PE and CC2)
Ambient temperature (operation)	-30°C ... 50°C	-30°C ... 50°C	-30°C ... 50°C	-30°C ... 50°C
Number of power contacts	3 (PE, DC+, DC-)	3 (PE, DC+, DC-)	3 (PE, DC+, DC-)	3 (PE, DC+, DC-)
Insertion/withdrawal cycles	> 10,000	> 10,000	> 10,000	> 10,000
Insertion/withdrawal force	< 100 N	< 100 N	< 100 N	< 100 N
Temperature sensor	Pt 1000	Pt 1000	Pt 1000	Pt 1000
Degree of protection (when plugged in)	IP55	IP55	IP55	IP55
Degree of protection (with protective cap)	IP54	IP54	IP54	IP54
<b>Cable data</b>				
Cable type	straight	straight	straight	straight
Cable length	5 m	5 m	5 m	5 m
Cable diameter	27 mm ±0.4 mm	31.6 mm ±0.4 mm	33.1 mm ±0.4 mm	34.9 mm ±0.4 mm
Cable structure	3 x 16 mm <sup>2</sup> + 2 x 4 mm <sup>2</sup> + (2 x 0.75 mm <sup>2</sup> ) P + 10 x 0.75 mm <sup>2</sup>	2 x 35 mm <sup>2</sup> + 1 x 25 mm <sup>2</sup> + 2 x 4 mm <sup>2</sup> + (2 x 0.75 mm <sup>2</sup> ) P + 10 x 0.75 mm <sup>2</sup>	2 x 50 mm <sup>2</sup> + 1 x 25 mm <sup>2</sup> + 2 x 4 mm <sup>2</sup> + (2 x 0.75 mm <sup>2</sup> ) P + 10 x 0.75 mm <sup>2</sup>	2 x 70 mm <sup>2</sup> + 1 x 25 mm <sup>2</sup> + 2 x 4 mm <sup>2</sup> + (2 x 0.75 mm <sup>2</sup> ) P + 10 x 0.75 mm <sup>2</sup>
Sheath color	black	black	black	black
<b>Ordering data</b>				
Description	Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
	80 A		125 A	
GB/T DC charging cable	1031383	1	1031381	1
<b>Accessories</b>				
Description	Type	Order No.	Pcs./Pkt.	
	Without vehicle charging connector recognition	EV-GBDC-PARK	1623770	1
With vehicle charging connector recognition	EV-GBDC-PARK-SW	1623497	1	
Fixing with hexagonal head screws	EV-GBDC-PARK-R	1623496	1	





### High Power Charging Technology <sup>®</sup>

Designed by PHOENIX CONTACT

#### Extremely short charging times

With the High Power Charging (HPC) system, Phoenix Contact has developed a charging technology that can charge the battery of an electric vehicle for a distance of 100 km in just three to five minutes. The centerpiece of this technology is a high-performance charging connector with intelligent cooling that allows for a charging current of up to 500 A. At a system voltage of 1000 V, this corresponds to a charging power of 500,000 W.

Until now, charging currents of up to 200 A were technically feasible with the Combined Charging System (CCS). Significantly higher currents are necessary, however, to achieve very short charging times. With conventional charging technology, this would result in dangerous overheating or would require larger, cumbersome cable diameters.

Our intelligent HPC technology is therefore based on a coolant system that enables charging currents of up to 500 A without compromising safety or manageability. We use an environmentally-sound, maintenance-friendly water-glycol mixture as the coolant. This cools both the charging cable and the DC power contacts in the charging connector. The contact carrier in the charging connector also acts as a heatsink, thanks to its outstanding thermal conductivity.

#### How does the cooling system work?

In accordance with the VDE-AR-E 2623-5-3 directive and the IEC TS 62196-3-1 standard, charging connectors and charging cables may not exceed a temperature that is 50 K higher than the ambient air temperature during the charging process ( $\Delta T_{\max} = 50 \text{ K}$ ).

In order to comply with these regulations, multiple temperature sensors integrated into the Phoenix Contact HPC system measure the heat produced directly at the charging connector power contacts and also in the charging cable in real time.

A controller evaluates the data collected and regulates the cooling output accordingly. This reliably prevents overheating in compliance with standards and, at the same time, increases the energy efficiency of the cooling system.

#### Easy maintenance of the cooling circuit

Thanks to the use of an environmentally friendly mixture of water and glycol as the coolant, the cooling circuit is relatively easy to maintain. In contrast to maintenance-intensive closed systems with oil cooling, the semi-open system necessary for our charging connectors is easy to maintain, e.g. when refilling the coolant.

#### Your advantages

- Fast charging in just a few minutes, thanks to extremely high charging powers of up to 500 kW
- Efficient cooling enables cables of smaller diameters to be used, which improves handling
- Extremely safe, thanks to continuous temperature and leak monitoring along with a wear indicator in the cable sheathing
- Maintenance-friendly, thanks to the easily replaceable mating face and semi-open cooling system with environmentally friendly coolant
- Fully compatible with the established Combined Charging System (CCS)

**i** Your web code: #1631



### CCS type 1 and CCS type 2

The cooled HPC system DC charging cables from Phoenix Contact are fully compatible and compliant with the established Combined Charging System for North America (CCS type 1) and Europe (CCS type 2). Furthermore, we can provide you with suitable control technology for the charging process and cooling, as well as a broad range of further products for your HPC fast charging stations.



### Optional panel feed-through

The optional panel feed-through makes installing the HPC charging cable on the charging station quick, safe, and easy. It is equipped with defined interfaces for power, communication, and cooling. The panel feed-through is supplied pre-mounted on the charging cable. We offer all HPC charging cables with straight or angled panel feed-through, or without panel feed-through.



### Replaceable mating face

Charging cables at public charging stations, and mating faces in particular, are subject to high levels of mechanical strain. Therefore, the mating face frames and power contacts of our HPC charging connectors can be replaced quickly, minimizing downtime and ensuring that the costly replacement of the entire HPC charging cable is not necessary. The repair kits are listed in the “Accessories” section.



### Use in charging facilities and charging parks

In these applications, the cooling system and controller are mainly housed centrally – in a separate building, for example. The decentral charging stations are supplied with coolant from there, and are only fitted with individual heat exchangers. Therefore all charging stations use a common cooling circuit.



### Use in stand-alone charging stations

A complete HPC system can also be installed in a single charging column. This means that the cooling unit and controller are integrated into the charging column to create an independent cooling circuit together with the charging connector and charging cable.



### Configuring your cooled HPC solution

Based on the installation space available for your charging columns, the climatic conditions at the installation location, and additional factors, we will configure the ideal combination of HPC charging cables, panel feed-throughs, controllers, and other components. We are also happy to recommend appropriate cooling units and heat exchangers from one of our technology partners.

# Charging connection systems

## Cooled DC charging cables – High Power Charging

### CCS type 2

- Ultra-fast charging
- Charging cables for European charging infrastructure
- Cooled vehicle charging connector
- Cooled charging cables

**Notes:**  
Upon request, we can also supply charging connectors with your company logo, as well as further cable types and lengths.

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[www.phoenixcontact.com](http://www.phoenixcontact.com)



With a metric cable and angled panel feed-through, left-hand side

High Power Charging Technology<sup>®</sup>  
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With a metric cable and angled panel feed-through, right-hand side

Technical data	
	500 A
Rated voltage	1000 V DC
Rated current	500 A
Standards	IEC 62196-3-1
Charging mode	Mode 4
Resistor coding	1500 Ω (between PE and PP)
Ambient temperature (operation)	-30°C ... 40°C
Number of power contacts	3 (PE, DC+, DC-)
Insertion/withdrawal cycles	> 10,000
Insertion/withdrawal force	< 100 N
Temperature monitoring	2x NTC (replaceable, front DC contacts) 2x NTC (DC power wires inside)
Degree of protection (when plugged in)	IP54
Cable data	
Cable type	straight
Cable length	5 m
Cable diameter	35.7 mm ±0.4 mm
Cable structure	5 x 25 mm <sup>2</sup> + 7 x 0.75 mm <sup>2</sup>
Sheath color	black
Panel feed-through	
Type	Left-hand angled panel feed-through
Panel thickness	max. 5 mm
Required mounting screws	M5x16
Dimensions (H x W x D)	80 mm x 82 mm x 215.5 mm
Fan for panel feed-through	
Ambient temperature (operation)	-20°C ... 40°C
Mechanical service life	70.000 h (at 40°C)
Connection type	2 x AWG 26
Nominal voltage U <sub>N</sub>	24 V DC
Nominal voltage range	18 V DC ... 24 V DC
Fan volumetric flow	28 m <sup>3</sup> /h
Fan speed indication	4400 min-1
Requirements on a cooling unit	
Cooling capacity	600 W
Flow rate	2 l/min
Operating pressure	1.00 bar ... 2.00 bar
Flow temperature	10°C

Technical data		
	500 A	400 A
Rated voltage	1000 V DC	1000 V DC
Rated current	500 A	400 A
Standards	IEC 62196-3-1	IEC 62196-3-1
Charging mode	Mode 4	Mode 4
Resistor coding	1500 Ω (between PE and PP)	1500 Ω (between PE and PP)
Ambient temperature (operation)	-30°C ... 40°C	-30°C ... 40°C
Number of power contacts	3 (PE, DC+, DC-)	3 (PE, DC+, DC-)
Insertion/withdrawal cycles	> 10,000	> 10,000
Insertion/withdrawal force	< 100 N	< 100 N
Temperature monitoring	2x NTC (replaceable, front DC contacts) 2x NTC (DC power wires inside)	2x NTC (replaceable, front DC contacts) 2x NTC (DC power wires inside)
Degree of protection (when plugged in)	IP54	IP54
Cable data		
Cable type	straight	straight
Cable length	5 m	5 m
Cable diameter	35.7 mm ±0.4 mm	35.7 mm ±0.4 mm
Cable structure	5 x 25 mm <sup>2</sup> + 7 x 0.75 mm <sup>2</sup>	5 x 25 mm <sup>2</sup> + 7 x 0.75 mm <sup>2</sup>
Sheath color	black	black
Panel feed-through		
Type	Left-hand angled panel feed-through	Left-hand angled panel feed-through
Panel thickness	max. 5 mm	max. 5 mm
Required mounting screws	M5x16	M5x16
Dimensions (H x W x D)	80 mm x 82 mm x 215.5 mm	80 mm x 82 mm x 215.5 mm
Fan for panel feed-through		
Ambient temperature (operation)	-20°C ... 40°C	-
Mechanical service life	70.000 h (at 40°C)	-
Connection type	2 x AWG 26	-
Nominal voltage U <sub>N</sub>	24 V DC	-
Nominal voltage range	18 V DC ... 24 V DC	-
Fan volumetric flow	28 m <sup>3</sup> /h	-
Fan speed indication	4400 min-1	-
Requirements on a cooling unit		
Cooling capacity	600 W	600 W
Flow rate	2 l/min	2 l/min
Operating pressure	1.00 bar ... 2.00 bar	1.00 bar ... 2.00 bar
Flow temperature	10°C	20°C

Technical data		
	500 A	400 A
Rated voltage	1000 V DC	1000 V DC
Rated current	500 A	400 A
Standards	IEC 62196-3-1	IEC 62196-3-1
Charging mode	Mode 4	Mode 4
Resistor coding	1500 Ω (between PE and PP)	1500 Ω (between PE and PP)
Ambient temperature (operation)	-30°C ... 40°C	-30°C ... 40°C
Number of power contacts	3 (PE, DC+, DC-)	3 (PE, DC+, DC-)
Insertion/withdrawal cycles	> 10,000	> 10,000
Insertion/withdrawal force	< 100 N	< 100 N
Temperature monitoring	2x NTC (replaceable, front DC contacts) 2x NTC (DC power wires inside)	2x NTC (replaceable, front DC contacts) 2x NTC (DC power wires inside)
Degree of protection (when plugged in)	IP54	IP54
Cable data		
Cable type	straight	straight
Cable length	5 m	5 m
Cable diameter	35.7 mm ±0.4 mm	35.7 mm ±0.4 mm
Cable structure	5 x 25 mm <sup>2</sup> + 7 x 0.75 mm <sup>2</sup>	5 x 25 mm <sup>2</sup> + 7 x 0.75 mm <sup>2</sup>
Sheath color	black	black
Panel feed-through		
Type	Right-hand angled panel feed-through	Right-hand angled panel feed-through
Panel thickness	max. 5 mm	max. 5 mm
Required mounting screws	M5x16	M5x16
Dimensions (H x W x D)	80 mm x 82 mm x 215.5 mm	80 mm x 82 mm x 215.5 mm
Fan for panel feed-through		
Ambient temperature (operation)	-20°C ... 40°C	-
Mechanical service life	70.000 h (at 40°C)	-
Connection type	2 x AWG 26	-
Nominal voltage U <sub>N</sub>	24 V DC	-
Nominal voltage range	18 V DC ... 24 V DC	-
Fan volumetric flow	28 m <sup>3</sup> /h	-
Fan speed indication	4400 min-1	-
Requirements on a cooling unit		
Cooling capacity	600 W	600 W
Flow rate	2 l/min	2 l/min
Operating pressure	1.00 bar ... 2.00 bar	1.00 bar ... 2.00 bar
Flow temperature	10°C	20°C

Description	Ordering data			
	Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
CCS type 2 DC charging cable, cooled	500 A		400 A	
	1085637	1	1052443	1

Description	Ordering data			
	Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
CCS type 2 DC charging cable, cooled	500 A		400 A	
	1089665	1	1089664	1

Description	Ordering data			
	Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
CCS type 2 DC charging cable, cooled	500 A		400 A	
	1089665	1	1089664	1

Description	Accessories		
	Type	Order No.	Pcs./Pkt.
<b>Holder</b> Without vehicle charging connector recognition	EVT2CCS-PARK	1624153	1
<b>Repair kit</b>	EVT2CCS-MF-M4X10-BIT-CTS	1085799	1
	EVT2CCS-MF-M4X10-BIT	1085798	1
	EVT2CCS-MF-M4X10	1085797	1

Description	Accessories		
	Type	Order No.	Pcs./Pkt.
<b>Holder</b> Without vehicle charging connector recognition	EVT2CCS-PARK	1624153	1
<b>Repair kit</b>	EVT2CCS-MF-M4X10-BIT-CTS	1085799	1
	EVT2CCS-MF-M4X10-BIT	1085798	1
	EVT2CCS-MF-M4X10	1085797	1

Description	Accessories		
	Type	Order No.	Pcs./Pkt.
<b>Holder</b> Without vehicle charging connector recognition	EVT2CCS-PARK	1624153	1
<b>Repair kit</b>	EVT2CCS-MF-M4X10-BIT-CTS	1085799	1
	EVT2CCS-MF-M4X10-BIT	1085798	1
	EVT2CCS-MF-M4X10	1085797	1

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With a metric cable and straight panel feed-through

High Power Charging Technology<sup>®</sup>  
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With metric cable, without panel feed-through

Technical data		Technical data	
500 A	400 A	500 A	
1000 V DC	1000 V DC	1000 V DC	
500 A	400 A	500 A	
IEC 62196-3-1	IEC 62196-3-1	IEC 62196-3-1	
Mode 4	Mode 4	Mode 4	
1500 Ω (between PE and PP)	1500 Ω (between PE and PP)	1500 Ω (between PE and PP)	
-30°C ... 40°C	-30°C ... 40°C	-30°C ... 40°C	
3 (PE, DC+, DC-)	3 (PE, DC+, DC-)	3 (PE, DC+, DC-)	
> 10,000	> 10,000	> 10,000	
< 100 N	< 100 N	< 100 N	
2x NTC (replaceable, front DC contacts)	2x NTC (replaceable, front DC contacts)	2x NTC (replaceable, front DC contacts)	
2x NTC (DC power wires inside)	2x NTC (DC power wires inside)	2x NTC (DC power wires inside)	
IP54	IP54	IP54	
straight	straight	straight	
5 m	5 m	5 m	
35.7 mm ±0.4 mm	35.7 mm ±0.4 mm	35.7 mm ±0.4 mm	
5 x 25 mm <sup>2</sup> + 7 x 0.75 mm <sup>2</sup>	5 x 25 mm <sup>2</sup> + 7 x 0.75 mm <sup>2</sup>	5 x 25 mm <sup>2</sup> + 7 x 0.75 mm <sup>2</sup>	
black	black	black	
Straight panel feed-through	Straight panel feed-through	-	
max. 5 mm	max. 5 mm	-	
M5x16	M5x16	-	
80 mm x 82 mm x 227.69 mm	80 mm x 82 mm x 227.69 mm	-	
-20°C ... 40°C	-	-	
70.000 h (at 40°C)	-	-	
2 x AWG 26	-	-	
24 V DC	-	-	
18 V DC ... 24 V DC	-	-	
28 m <sup>3</sup> /h	-	-	
4400 min-1	-	-	
600 W	600 W	600 W	
2 l/min	2 l/min	2 l/min	
1.00 bar ... 2.00 bar	1.00 bar ... 2.00 bar	1.00 bar ... 2.00 bar	
10°C	20°C	10°C	

Ordering data				Ordering data			
Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
500 A		400 A		500 A			
1085631	1	1052444	1	1085638	1		

Accessories			Accessories		
Type	Order No.	Pcs./Pkt.	Type	Order No.	Pcs./Pkt.
EV-T2CCS-PARK	1624153	1	EV-T2CCS-PARK	1624153	1
EV-T2CCS-MF-M4X10-BIT-CTS	1085799	1	EV-T2CCS-MF-M4X10-BIT-CTS	1085799	1
EV-T2CCS-MF-M4X10-BIT	1085798	1	EV-T2CCS-MF-M4X10-BIT	1085798	1
EV-T2CCS-MF-M4X10	1085797	1	EV-T2CCS-MF-M4X10	1085797	1



### A wide range of products for every application

Conventional charging with alternating current (AC) in private and commercial applications in accordance with charging mode 3 is also playing an important role in establishing electromobility.

For this charging mode, we provide a complete range of VDE-, UL-, and PSE-certified AC charging cables for charging powers of up to 26 kW – standard-compliant and for all country-specific standards. This means we can offer you the right charging cable for every application:

- You need a charging cable with a free cable end for charging case C. In this case, the charging cable is permanently connected to the charging station.
- Mobile charging cables are used in charging case B and are, for example, carried in the trunk of the vehicle. The cable is equipped with a connecting element at both ends.
- Mobile adapter charging cables are the ideal solution for charging case B if, for example, a vehicle with an American type 1 inlet needs to be charged at a European type 2 charging station.

### Winner of the German Design Award

Our type 2 AC charging cables have received the German Design Award 2019 in the “Special Mention” category.

During development of the product family, we focused on ensuring that the design was both ergonomic and stylish, as well as using robust and top-quality materials in order to satisfy the stringent requirements of the automotive industry.

The German Design Award jury was impressed with the nominated charging cable: “Thanks to the ergonomic design, the cable is pleasant to hold, which makes it easier to use. A functionally sophisticated design that is also aesthetically impressive, thanks to its modern shape and two-tone look.” This was the feedback from the jury, which was comprised of design experts from the fields of business, academia, and science, as well as the design industry.

### Your advantages

- Comprehensive product range for type 1, type 2, and GB/T
- Ergonomic design means that the cables are easy to use – winner of the German Design Award 2019
- Upon request, we can also include your company logo to ensure consistent branding of your charging station or wall box
- Efficient power transmission and long-term stability, thanks to silver-plated power and signal contacts
- Longitudinal water tightness reliably prevents water from permeating the cable
- Developed and produced in accordance with the IATF 16949 automotive standard and ISO 9001
- Tested in accordance with selected tests of automotive standards LV124, LV214, and LV215-2

**i** Your web code: #1022



### Type 1

Type 1 AC charging cables in accordance with SAE J1772 and IEC 62196-2 are primarily used in the USA and Japan. The cables are locked by means of a lever locking mechanism that interrupts the power when actuated. Versions are available with metric, AWG, and PSE cables for charging currents of up to 32 A and voltages of up to 250 V.



### Type 2

Type 2 AC charging cables in accordance with IEC 62196-2 support single- and three-phase charging in Europe. An electro-mechanical actuator locking mechanism safeguards the charging process. Versions are available with metric cables for charging currents of up to 32 A and voltages of up to 480 V.



### GB/T

The standard GB/T 20234.2 describes single- and three-phase charging in China. A special lever system ensures that the vehicle inlet and vehicle charging connector latch together securely. Versions are available with metric cables for charging currents of up to 32 A and voltages of up to 480 V.



### Additional locking option

Our type 1 and GB/T AC charging cables can also be locked with a padlock (shackle diameter: 4 mm) as an option. The locking lever can no longer be actuated when plugged in.



### Charging connectors with your logo

We can also integrate your company logo into our AC charging connectors upon request. This will make your charging station or wall box an integral part of your uniform branding concept and outward appearance. We can either emboss your logo into the soft components of the charging connector or, if you would like, we can print UV- and weather-resistant adhesive labels either in black and white or in color.



### Tailored charging cables

Our broad product range allows you to choose from a variety of lengths and cross sections, metric or AWG cables, and spiraled or straight cables. If you are unable to find your preferred combination within our range, we can also design and manufacture customer-specific items. We can also supply the cable end preassembled, compacted, or with a step cut upon request.

# Charging connection systems

## AC charging cables

### Type 2 with one free cable end

- Charging cables for European charging infrastructure
- Vehicle-side locking with electro-mechanical locking actuator
- Vehicle charging connector with a protective cap

**Notes:**  
Upon request, we can also supply charging connectors with your company logo, further cable types and lengths, as well as cable ends that are preassembled or compacted, or with a step cut.



**1-phase, black,  
with a spiraled metric cable**



**1-phase, black,  
with a straight metric cable**



Technical data		
	20 A	32 A
Number of phases	1	1
Rated voltage	250 V AC	250 V AC
Rated current	20 A	32 A
Standards	IEC 62196-2	IEC 62196-2
Charging mode	Mode 3, Case C	Mode 3, Case C
Resistor coding	680 Ω (between PE and PP)	220 Ω (between PE and PP)
Ambient temperature (operation)	-30°C ... 50°C	-30°C ... 50°C
Number of power contacts	3 (L1, N, PE)	3 (L1, N, PE)
Insertion/withdrawal cycles	> 10,000	> 10,000
Insertion/withdrawal force	< 100 N	< 100 N
Degree of protection (when plugged in)	IP44	IP44
Degree of protection (with protective cap)	IP54	IP54
<b>Cable data</b>		
Cable type	spiraled	spiraled
Cable length	4 m	4 m
Cable diameter	10.2 mm ±0,3 mm	12.8 mm ±0,4 mm
Cable structure	3 x 2.5 mm <sup>2</sup> + 1 x 0.5 mm <sup>2</sup>	3 x 6.0 mm <sup>2</sup> + 1 x 0.5 mm <sup>2</sup>
Sheath color	black	black



Technical data		
	20 A	32 A
Number of phases	1	1
Rated voltage	250 V AC	250 V AC
Rated current	20 A	32 A
Standards	IEC 62196-2	IEC 62196-2
Charging mode	Mode 3, Case C	Mode 3, Case C
Resistor coding	680 Ω (between PE and PP)	220 Ω (between PE and PP)
Ambient temperature (operation)	-30°C ... 50°C	-30°C ... 50°C
Number of power contacts	3 (L1, N, PE)	3 (L1, N, PE)
Insertion/withdrawal cycles	> 10,000	> 10,000
Insertion/withdrawal force	< 100 N	< 100 N
Degree of protection (when plugged in)	IP44	IP44
Degree of protection (with protective cap)	IP54	IP54
<b>Cable data</b>		
Cable type	straight	straight
Cable length	5 m	5 m
Cable diameter	10.2 mm ±0,3 mm	12.8 mm ±0,4 mm
Cable structure	3 x 2.5 mm <sup>2</sup> + 1 x 0.5 mm <sup>2</sup>	3 x 6.0 mm <sup>2</sup> + 1 x 0.5 mm <sup>2</sup>
Sheath color	black	black

Ordering data	
Order No.	Pcs./Pkt.
	20 A
	32 A

**AC charging cable with a type 2 AC vehicle charging connector and a free cable end**

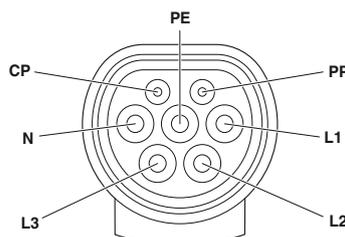
Ordering data			
Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
	20 A		32 A
<b>1056548</b>	1	<b>1056575</b>	1

Ordering data			
Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
	20 A		32 A
<b>1056696</b>	1	<b>1097298</b>	1

Accessories		
Type	Order No.	Pcs./Pkt.
<b>Holder</b>		
Without vehicle charging connector recognition	<b>1624148</b>	1

Accessories		
Type	Order No.	Pcs./Pkt.
<b>EV-T2AC-PARK</b>	<b>1624148</b>	1

Accessories		
Type	Order No.	Pcs./Pkt.
<b>EV-T2AC-PARK</b>	<b>1624148</b>	1



Vehicle charging connector pin assignment



3-phase, black,  
with a spiraled metric cable



3-phase, black,  
with a straight metric cable



Technical data	
20 A	32 A
3	3
480 V AC	480 V AC
20 A	32 A
IEC 62196-2	IEC 62196-2
Mode 3, Case C	Mode 3, Case C
680 Ω (between PE and PP)	220 Ω (between PE and PP)
-30°C ... 50°C	-30°C ... 50°C
5 (L1, L2, L3, N, PE)	5 (L1, L2, L3, N, PE)
> 10,000	> 10,000
< 100 N	< 100 N
IP44	IP44
IP54	IP54
spiraled	spiraled
4 m	4 m
12.8 mm ±0.4 mm	17 mm ±0.4 mm
5 x 2.5 mm <sup>2</sup> + 1 x 0.5 mm <sup>2</sup>	5 x 6.0 mm <sup>2</sup> + 1 x 0.5 mm <sup>2</sup>
black	black

Technical data	
20 A	32 A
3	3
480 V AC	480 V AC
20 A	32 A
IEC 62196-2	IEC 62196-2
Mode 3, Case C	Mode 3, Case C
680 Ω (between PE and PP)	220 Ω (between PE and PP)
-30°C ... 50°C	-30°C ... 50°C
5 (L1, L2, L3, N, PE)	5 (L1, L2, L3, N, PE)
> 10,000	> 10,000
< 100 N	< 100 N
IP44	IP44
IP54	IP54
straight	straight
5 m	5 m
12.8 mm ±0.4 mm	17 mm ±0.4 mm
5 x 2.5 mm <sup>2</sup> + 1 x 0.5 mm <sup>2</sup>	5 x 6.0 mm <sup>2</sup> + 1 x 0.5 mm <sup>2</sup>
black	black

Ordering data			
Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
20 A		32 A	
1097295	1	1056698	1

Ordering data			
Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
20 A		32 A	
1056697	1	1056700	1

Accessories		
Type	Order No.	Pcs./Pkt.
EV-T2AC-PARK	1624148	1

Accessories		
Type	Order No.	Pcs./Pkt.
EV-T2AC-PARK	1624148	1

# Charging connection systems

## AC charging cables

### Type 2 with one free cable end

- Charging cables for European charging infrastructure
- Vehicle-side locking with electro-mechanical locking actuator
- Vehicle charging connector with a protective cap

**Notes:**  
Upon request, we can also supply charging connectors with your company logo, further cable types and lengths, as well as cable ends that are preassembled or compacted, or with a step cut.



1-phase, gray-black, with a spiraled metric cable



1-phase, gray-black, with a straight metric cable



Technical data		
	20 A	32 A
Number of phases	1	1
Rated voltage	250 V AC	250 V AC
Rated current	20 A	32 A
Standards	IEC 62196-2	IEC 62196-2
Charging mode	Mode 3, Case C	Mode 3, Case C
Resistor coding	680 Ω (between PE and PP)	220 Ω (between PE and PP)
Ambient temperature (operation)	-30°C ... 50°C	-30°C ... 50°C
Number of power contacts	3 (L1, N, PE)	3 (L1, N, PE)
Insertion/withdrawal cycles	> 10,000	> 10,000
Insertion/withdrawal force	< 100 N	< 100 N
Degree of protection (when plugged in)	IP44	IP44
Degree of protection (with protective cap)	IP54	IP54
Cable data		
Cable type	spiraled	spiraled
Cable length	4 m	4 m
Cable diameter	10.2 mm ±0,3 mm	12.8 mm ±0,4 mm
Cable structure	3 x 2.5 mm <sup>2</sup> + 1 x 0.5 mm <sup>2</sup>	3 x 6.0 mm <sup>2</sup> + 1 x 0.5 mm <sup>2</sup>
Sheath color	black	black



Technical data		
	20 A	32 A
Number of phases	1	1
Rated voltage	250 V AC	250 V AC
Rated current	20 A	32 A
Standards	IEC 62196-2	IEC 62196-2
Charging mode	Mode 3, Case C	Mode 3, Case C
Resistor coding	680 Ω (between PE and PP)	220 Ω (between PE and PP)
Ambient temperature (operation)	-30°C ... 50°C	-30°C ... 50°C
Number of power contacts	3 (L1, N, PE)	3 (L1, N, PE)
Insertion/withdrawal cycles	> 10,000	> 10,000
Insertion/withdrawal force	< 100 N	< 100 N
Degree of protection (when plugged in)	IP44	IP44
Degree of protection (with protective cap)	IP54	IP54
Cable data		
Cable type	straight	straight
Cable length	5 m	5 m
Cable diameter	10.2 mm ±0,3 mm	12.8 mm ±0,4 mm
Cable structure	3 x 2.5 mm <sup>2</sup> + 1 x 0.5 mm <sup>2</sup>	3 x 6.0 mm <sup>2</sup> + 1 x 0.5 mm <sup>2</sup>
Sheath color	black	black

Description
<b>AC charging cable with a type 2 AC vehicle charging connector and a free cable end without locking</b>

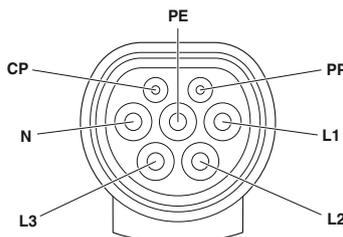
Ordering data			
Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
20 A		32 A	
1627126	1	1627127	1

Ordering data			
Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
20 A		32 A	
1627354	1	1627366	1

Description
<b>Holder</b> Without vehicle charging connector recognition

Accessories			
Type	Order No.	Pcs./Pkt.	
EV-T2AC-PARK	1624148	1	

Accessories			
Type	Order No.	Pcs./Pkt.	
EV-T2AC-PARK	1624148	1	



Vehicle charging connector pin assignment



3-phase, gray-black,  
with a spiraled metric cable



3-phase, gray-black,  
with a straight metric cable



Technical data	
20 A	32 A
3	3
480 V AC	480 V AC
20 A	32 A
IEC 62196-2	IEC 62196-2
Mode 3, Case C	Mode 3, Case C
680 Ω (between PE and PP)	220 Ω (between PE and PP)
-30°C ... 50°C	-30°C ... 50°C
5 (L1, L2, L3, N, PE)	5 (L1, L2, L3, N, PE)
> 10,000	> 10,000
< 100 N	< 100 N
IP44	IP44
IP54	IP54
spiraled	spiraled
4 m	4 m
12.8 mm ±0.4 mm	17 mm ±0.4 mm
5 x 2.5 mm <sup>2</sup> + 1 x 0.5 mm <sup>2</sup>	5 x 6.0 mm <sup>2</sup> + 1 x 0.5 mm <sup>2</sup>
black	black

Technical data	
20 A	32 A
3	3
480 V AC	480 V AC
20 A	32 A
IEC 62196-2	IEC 62196-2
Mode 3, Case C	Mode 3, Case C
680 Ω (between PE and PP)	220 Ω (between PE and PP)
-30°C ... 50°C	-30°C ... 50°C
5 (L1, L2, L3, N, PE)	5 (L1, L2, L3, N, PE)
> 10,000	> 10,000
< 100 N	< 100 N
IP44	IP44
IP54	IP54
straight	straight
5 m	5 m
12.8 mm ±0.4 mm	17 mm ±0.4 mm
5 x 2.5 mm <sup>2</sup> + 1 x 0.5 mm <sup>2</sup>	5 x 6.0 mm <sup>2</sup> + 1 x 0.5 mm <sup>2</sup>
black	black

Ordering data			
Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
20 A		32 A	
1627128	1	1627130	1

Ordering data			
Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
20 A		32 A	
1627365	1	1627355	1

Accessories		
Type	Order No.	Pcs./Pkt.
EV-T2AC-PARK	1624148	1

Accessories		
Type	Order No.	Pcs./Pkt.
EV-T2AC-PARK	1624148	1

# Charging connection systems

## AC charging cables

### Type 1 with one free cable end

- Charging cables for North American, Japanese, and European charging infrastructure
- Locking on the vehicle side with lever mechanism
- Additional locking option with padlock
- Vehicle charging connector with a protective cap

**Notes:**  
Upon request, we can also supply charging connectors with your company logo, further cable types and lengths, as well as cable ends that are preassembled or compacted, or with a step cut.



Gray-black,  
with a spiraled metric cable



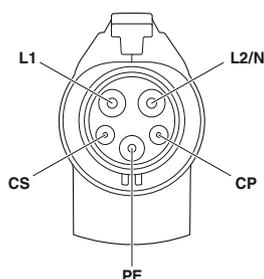
Gray-black,  
with a straight metric cable



	Technical data		Technical data	
	20 A	32 A	20 A	32 A
Number of phases	1	1	1	1
Rated voltage	250 V AC	250 V AC	250 V AC	250 V AC
Rated current	20 A	32 A	20 A	32 A
Standards	IEC 62196-2	IEC 62196-2	IEC 62196-2	IEC 62196-2
Charging mode	Mode 3, Case C			
Resistor coding	480 Ω (Lever actuated) 150 Ω (Lever not actuated)	480 Ω (Lever actuated) 150 Ω (Lever not actuated)	480 Ω (Lever actuated) 150 Ω (Lever not actuated)	480 Ω (Lever actuated) 150 Ω (Lever not actuated)
Ambient temperature (operation)	-30°C ... 50°C	-30°C ... 50°C	-30°C ... 50°C	-30°C ... 50°C
Number of power contacts	3 (L1, N, PE)			
Insertion/withdrawal cycles	> 10,000	> 10,000	> 10,000	> 10,000
Insertion/withdrawal force	< 75 N	< 75 N	< 75 N	< 75 N
Degree of protection (when plugged in)	IP44	IP44	IP44	IP44
Degree of protection (with protective cap)	IP54	IP54	IP54	IP54
<b>Cable data</b>				
Cable type	spiraled	spiraled	straight	straight
Cable length	4 m	4 m	5 m	5 m
Cable diameter	10.2 mm ±0.3 mm	12.8 mm ±0.4 mm	10.2 mm ±0.3 mm	12.8 mm ±0.4 mm
Cable structure	3 x 2.5 mm <sup>2</sup> + 1 x 0.5 mm <sup>2</sup>	3 x 6.0 mm <sup>2</sup> + 1 x 0.5 mm <sup>2</sup>	3 x 2.5 mm <sup>2</sup> + 1 x 0.5 mm <sup>2</sup>	3 x 6.0 mm <sup>2</sup> + 1 x 0.5 mm <sup>2</sup>
Sheath color	black	black	black	black

Description	Ordering data				Ordering data			
	Order No.	Pcs./Pkt.						
<b>AC charging cable with a type 1 AC vehicle charging connector and a free cable end</b>								
without additional locking option with padlock	<b>1627345</b>	1	<b>1627344</b>	1	<b>1628013</b>	1	<b>1628096</b>	1
with additional locking option with padlock	<b>1623238</b>	1	<b>1623239</b>	1	<b>1627362</b>	1	<b>1627356</b>	1

Description	Accessories			Accessories		
	Type	Order No.	Pcs./Pkt.	Type	Order No.	Pcs./Pkt.
<b>Holder</b>						
Without vehicle charging connector recognition	EV-T1AC-PARK	<b>1624139</b>	1	EV-T1AC-PARK	<b>1624139</b>	1



Vehicle charging connector pin assignment



Black,  
with a straight metric cable



Black,  
with a straight PSE cable



Technical data		Technical data		Technical data	
<b>20 A</b>		<b>32 A</b>		<b>30 A</b>	
1	1	1	1	1	1
250 V AC	250 V AC	250 V AC	250 V AC	250 V AC	250 V AC
20 A	32 A	30 A	30 A	30 A	30 A
IEC 62196-2	IEC 62196-2	IEC 62196-2	IEC 62196-2	IEC 62196-2	IEC 62196-2
Mode 3, Case C	Mode 3, Case C	Mode 3, Case C	Mode 3, Case C	Mode 3, Case C	Mode 3, Case C
480 Ω (Lever actuated)	480 Ω (Lever actuated)	480 Ω (Lever actuated)	480 Ω (Lever actuated)	480 Ω (Lever actuated)	480 Ω (Lever actuated)
150 Ω (Lever not actuated)	150 Ω (Lever not actuated)	150 Ω (Lever not actuated)	150 Ω (Lever not actuated)	150 Ω (Lever not actuated)	150 Ω (Lever not actuated)
-30°C ... 50°C	-30°C ... 50°C	-30°C ... 50°C	-30°C ... 50°C	-30°C ... 50°C	-30°C ... 50°C
3 (L1, N, PE)	3 (L1, N, PE)	3 (L1, N, PE)	3 (L1, N, PE)	3 (L1, N, PE)	3 (L1, N, PE)
> 10,000	> 10,000	> 10,000	> 10,000	> 10,000	> 10,000
< 75 N	< 75 N	< 75 N	< 75 N	< 75 N	< 75 N
IP44	IP44	IP44	IP44	IP44	IP44
IP54	IP54	IP54	IP54	IP54	IP54
straight	straight	straight	straight	straight	straight
5 m	5 m	5 m	5 m	5 m	5 m
10.2 mm ±0.3 mm	12.8 mm ±0.4 mm	16.3 mm	16.3 mm	16.3 mm	16.3 mm
3 x 2.5 mm <sup>2</sup> + 1 x 0.5 mm <sup>2</sup>	3 x 6.0 mm <sup>2</sup> + 1 x 0.5 mm <sup>2</sup>	3 x 6.0 mm <sup>2</sup> + 1 x 0.75 mm <sup>2</sup>	3 x 6.0 mm <sup>2</sup> + 1 x 0.75 mm <sup>2</sup>	3 x 6.0 mm <sup>2</sup> + 1 x 0.75 mm <sup>2</sup>	3 x 6.0 mm <sup>2</sup> + 1 x 0.75 mm <sup>2</sup>
black	black	black	black	black	black

Ordering data				Ordering data			
<b>Order No.</b>	<b>Pcs./Pkt.</b>						
<b>20 A</b>		<b>32 A</b>		<b>30 A</b>			
1060405	1	1628126	1	1033865	1	1033864	1

Accessories			Accessories		
<b>Type</b>	<b>Order No.</b>	<b>Pcs./Pkt.</b>	<b>Type</b>	<b>Order No.</b>	<b>Pcs./Pkt.</b>
EV-T1AC-PARK	1624139	1	EV-T1AC-PARK	1624139	1

# Charging connection systems

## AC charging cables

### Type 1 with one free cable end

- Charging cables for North American, Japanese, and European charging infrastructure
- Locking on the vehicle side with lever mechanism
- Additional locking option with padlock
- Vehicle charging connector with a protective cap



**Gray-black,  
with a straight AWG cable**



**Black,  
with a straight AWG cable**

**Notes:**  
Upon request, we can also supply charging connectors with your company logo, further cable types and lengths, as well as cable ends that are preassembled or compacted, or with a step cut.



Technical data	
15 A	32 A
Number of phases	1
Rated voltage	250 V AC
Rated current	15 A
Standards	SAE J1772
Charging mode	Level 2
Resistor coding	480 Ω (Lever actuated) 150 Ω (Lever not actuated)
Ambient temperature (operation)	-30°C ... 50°C
Number of power contacts	3 (L1, N, PE)
Insertion/withdrawal cycles	> 10,000
Insertion/withdrawal force	< 75 N
Degree of protection (NEMA)	3R
Cable data	
Cable type	straight
Cable length	5 m
Cable diameter	10.5 mm ±0.3 mm
Cable structure	3 x 14 AWG + 1 x 20 AWG
Sheath color	black



Technical data	
15 A	32 A
Number of phases	1
Rated voltage	250 V AC
Rated current	15 A
Standards	SAE J1772
Charging mode	Level 2
Resistor coding	480 Ω (Lever actuated) 150 Ω (Lever not actuated)
Ambient temperature (operation)	-30°C ... 50°C
Number of power contacts	3 (L1, N, PE)
Insertion/withdrawal cycles	> 10,000
Insertion/withdrawal force	< 75 N
Degree of protection (NEMA)	3R
Cable data	
Cable type	straight
Cable length	5 m
Cable diameter	10.5 mm ±0.3 mm
Cable structure	3 x 14 AWG + 1 x 20 AWG
Sheath color	black

Ordering data			
Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
15 A		32 A	
1628014	1	1628422	1
1627757	1	1628419	1

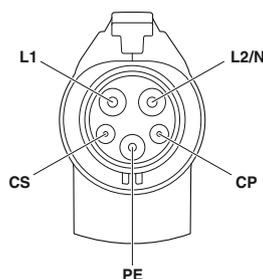
Ordering data			
Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
15 A		32 A	
1064753	1	1064755	1

**AC charging cable with a type 1 AC vehicle charging connector and a free cable end**  
without additional locking option with padlock  
with additional locking option with padlock

Accessories			
Type	Order No.	Pcs./Pkt.	
EV-T1AC-PARK	1624139	1	

Accessories			
Type	Order No.	Pcs./Pkt.	
EV-T1AC-PARK	1624139	1	

**Holder**  
Without vehicle charging connector recognition



Vehicle charging connector pin assignment

### GB/T with one free cable end

- Charging cables for the Chinese charging infrastructure
- Locking on the vehicle side with lever mechanism
- Additional locking option with padlock
- Vehicle charging connector with a protective cap

**Notes:**  
Upon request, we can also supply charging connectors with your company logo, further cable types and lengths, as well as cable ends that are preassembled or compacted, or with a step cut.



**1-phase, gray-black, with a straight metric cable**



**3-phase, gray-black, with a straight metric cable**

Technical data	
16 A	32 A
Number of phases	1
Rated voltage	250 V
Rated current	16 A
Standards	GB/T 20234.2-2015
Charging mode	Mode 3, Case C
Resistor coding	680 Ω + 2.7 kΩ (Lever actuated) 680 Ω (Lever not actuated)
Ambient temperature (operation)	-30°C ... 50°C
Number of power contacts	3 (L, N, PE)
Insertion/withdrawal cycles	> 10,000
Insertion/withdrawal force	< 100 N
Degree of protection (when plugged in)	IP55
Degree of protection (with protective cap)	IP54
Cable data	
Cable type	straight
Cable length	5 m
Cable diameter	10.2 mm ±0.3 mm
Cable structure	3 x 2.5 mm <sup>2</sup> + 1 x 0.5 mm <sup>2</sup>
Sheath color	black

Technical data	
16 A	32 A
Number of phases	3
Rated voltage	440 V
Rated current	16 A
Standards	GB/T 20234.2-2015
Charging mode	Mode 3, Case C
Resistor coding	680 Ω + 2.7 kΩ (Lever actuated) 680 Ω (Lever not actuated)
Ambient temperature (operation)	-30°C ... 50°C
Number of power contacts	5 (L1, L2, L3, N, PE)
Insertion/withdrawal cycles	> 10,000
Insertion/withdrawal force	< 100 N
Degree of protection (when plugged in)	IP55
Degree of protection (with protective cap)	IP54
Cable data	
Cable type	straight
Cable length	5 m
Cable diameter	12.8 mm ±0.4 mm
Cable structure	5 x 2.5 mm <sup>2</sup> + 1 x 0.5 mm <sup>2</sup>
Sheath color	black

Ordering data			
Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.

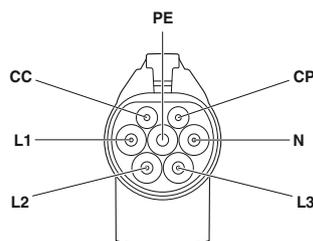
Ordering data			
Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.

<b>AC charging cable with a GB/T AC vehicle charging connector and a free cable end</b>			
without additional locking option with padlock	<b>1627599</b>	1	<b>1627601</b>
with additional locking option with padlock	<b>1623510</b>	1	<b>1623511</b>

<b>AC charging cable with a GB/T AC vehicle charging connector and a free cable end</b>			
without additional locking option with padlock	<b>1627600</b>	1	<b>1627602</b>
with additional locking option with padlock	<b>1623512</b>	1	<b>1624137</b>

Accessories			
Type	Order No.	Pcs./Pkt.	
EV-GBAC-PARK	<b>1624142</b>	1	

Accessories			
Type	Order No.	Pcs./Pkt.	
EV-GBAC-PARK	<b>1624142</b>	1	



**GB/T vehicle charging connector pin assignment**

# Charging connection systems

## AC charging cables

### Mobile type 2 design

- Mobile charging cables for European charging infrastructure
- Vehicle- and infrastructure-side locking mechanism with electromechanical locking actuator
- Vehicle charging connector and infrastructure charging plug with protective cap

**Notes:**  
Upon request, we can also supply charging connectors with your company logo, as well as further cable types and lengths.



1-phase, gray-black, with a spiraled metric cable



1-phase, gray-black, with a straight metric cable



Technical data		
	20 A	32 A
Number of phases	1	1
Rated voltage	250 V AC	250 V AC
Rated current	20 A	32 A
Standards	IEC 62196-2	IEC 62196-2
Charging mode	Mode 3, Case B	Mode 3, Case B
Ambient temperature (operation)	-30°C ... 50°C	-30°C ... 50°C
Number of power contacts	3 (L1, N, PE)	3 (L1, N, PE)
Insertion/withdrawal cycles	> 10,000	> 10,000
Insertion/withdrawal force	< 100 N	< 100 N
Degree of protection (when plugged in)	IP44	IP44
Degree of protection (with protective cap)	IP54	IP54
<b>Cable data</b>		
Cable type	spiraled	spiraled
Cable length	4 m	4 m
Cable diameter	10.2 mm ±0,3 mm	12.8 mm ±0.4 mm
Cable structure	3 x 2.5 mm <sup>2</sup> + 1 x 0.5 mm <sup>2</sup>	3 x 6.0 mm <sup>2</sup> + 1 x 0.5 mm <sup>2</sup>
Sheath color	black	black



Technical data		
	20 A	32 A
Number of phases	1	1
Rated voltage	250 V AC	250 V AC
Rated current	20 A	32 A
Standards	IEC 62196-2	IEC 62196-2
Charging mode	Mode 3, Case B	Mode 3, Case B
Ambient temperature (operation)	-30°C ... 50°C	-30°C ... 50°C
Number of power contacts	3 (L1, N, PE)	3 (L1, N, PE)
Insertion/withdrawal cycles	> 10,000	> 10,000
Insertion/withdrawal force	< 100 N	< 100 N
Degree of protection (when plugged in)	IP44	IP44
Degree of protection (with protective cap)	IP54	IP54
<b>Cable data</b>		
Cable type	straight	straight
Cable length	5 m	5 m
Cable diameter	10.2 mm ±0,3 mm	12.8 mm ±0.4 mm
Cable structure	3 x 2.5 mm <sup>2</sup> + 1 x 0.5 mm <sup>2</sup>	3 x 6.0 mm <sup>2</sup> + 1 x 0.5 mm <sup>2</sup>
Sheath color	black	black

Description
<b>Mobile AC charging cable with type 2 AC vehicle charging connector and type 2 infrastructure charging plug</b> without additional locking option with padlock

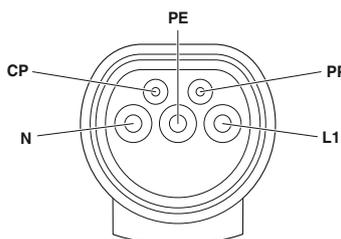
Ordering data			
Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
20 A		32 A	
1627131	1	1627133	1

Ordering data			
Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
20 A		32 A	
1627982	1	1627801	1

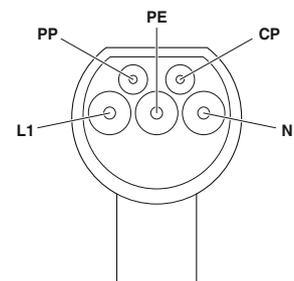
Description
<b>Holder</b> Without vehicle charging connector recognition
<b>AC infrastructure charging outlet</b> with locking actuator (12 V operating voltage) 1-phase

Accessories			
Type	Order No.	Pcs./Pkt.	
EV-T2AC-PARK	1624148	1	
EV-T2M3SE12-1AC32A-0,7M6,0E10	1628124	1	

Accessories			
Type	Order No.	Pcs./Pkt.	
EV-T2AC-PARK	1624148	1	
EV-T2M3SE12-1AC32A-0,7M6,0E10	1628124	1	



Vehicle charging connector pin assignment



Infrastructure charging plug pin assignment



3-phase, gray-black, with a spiraled metric cable



3-phase, gray-black, with a straight metric cable



Technical data	
20 A	32 A
3	3
480 V AC	480 V AC
20 A	32 A
IEC 62196-2	IEC 62196-2
Mode 3, Case B	Mode 3, Case B
-30°C ... 50°C	-30°C ... 50°C
5 (L1, L2, L3, N, PE)	5 (L1, L2, L3, N, PE)
> 10,000	> 10,000
< 100 N	< 100 N
IP44	IP44
IP54	IP54
spiraled	spiraled
4 m	4 m
12.8 mm ±0.4 mm	17 mm ±0.4 mm
5 x 2.5 mm <sup>2</sup> + 1 x 0.5 mm <sup>2</sup>	5 x 6.0 mm <sup>2</sup> + 1 x 0.5 mm <sup>2</sup>
black	black

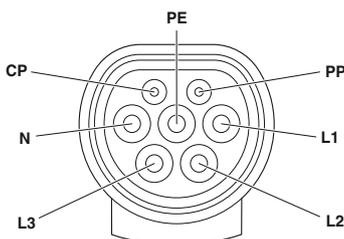
Technical data	
20 A	32 A
3	3
480 V AC	480 V AC
20 A	32 A
IEC 62196-2	IEC 62196-2
Mode 3, Case B	Mode 3, Case B
-30°C ... 50°C	-30°C ... 50°C
5 (L1, L2, L3, N, PE)	5 (L1, L2, L3, N, PE)
> 10,000	> 10,000
< 100 N	< 100 N
IP44	IP44
IP54	IP54
straight	straight
5 m	5 m
12.8 mm ±0.4 mm	17 mm ±0.4 mm
5 x 2.5 mm <sup>2</sup> + 1 x 0.5 mm <sup>2</sup>	5 x 6.0 mm <sup>2</sup> + 1 x 0.5 mm <sup>2</sup>
black	black

Ordering data			
Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
20 A		32 A	
1627135	1	1627136	1

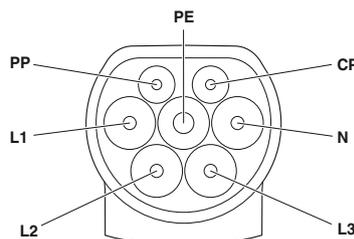
Ordering data			
Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
20 A		32 A	
1628348	1	1627692	1

Accessories			
Type	Order No.	Pcs./Pkt.	
EV-T2AC-PARK	1624148	1	
EV-T2M3SE12-1AC32A-0,7M6,0E10	1628124	1	

Accessories			
Type	Order No.	Pcs./Pkt.	
EV-T2AC-PARK	1624148	1	
EV-T2M3SE12-1AC32A-0,7M6,0E10	1628124	1	



Vehicle charging connector pin assignment



Infrastructure charging plug pin assignment

# Charging connection systems

## AC charging cables

### Mobile type 2 design

- Mobile charging cables for European charging infrastructure
- Vehicle- and infrastructure-side locking mechanism with electromechanical locking actuator
- Vehicle charging connector and infrastructure charging plug with protective cap

**Notes:**  
Upon request, we can also supply charging connectors with your company logo, as well as further cable types and lengths.



**1-phase, black,  
with a straight metric cable**



**3-phase, black,  
with a straight metric cable**



Technical data		
	20 A	32 A
Number of phases	1	1
Rated voltage	250 V AC	250 V AC
Rated current	20 A	32 A
Standards	IEC 62196-2	IEC 62196-2
Charging mode	Mode 3, Case B	Mode 3, Case B
Ambient temperature (operation)	-30°C ... 50°C	-30°C ... 50°C
Number of power contacts	3 (L1, N, PE)	3 (L1, N, PE)
Insertion/withdrawal cycles	> 10,000	> 10,000
Insertion/withdrawal force	< 100 N	< 100 N
Degree of protection (when plugged in)	IP44	IP44
Degree of protection (with protective cap)	IP54	IP54
<b>Cable data</b>		
Cable type	straight	straight
Cable length	5 m	5 m
Cable diameter	10.2 mm ±0,3 mm	12.8 mm ±0.4 mm
Cable structure	3 x 2.5 mm <sup>2</sup> + 1 x 0.5 mm <sup>2</sup>	3 x 6.0 mm <sup>2</sup> + 1 x 0.5 mm <sup>2</sup>
Sheath color	black	black

Ordering data			
Description	Order No.	Pcs./Pkt.	Order No.
	20 A		32 A
<b>Mobile AC charging cable with type 2 AC vehicle charging connector and type 2 infrastructure charging plug</b>	<b>1097301</b>	1	<b>1097306</b>

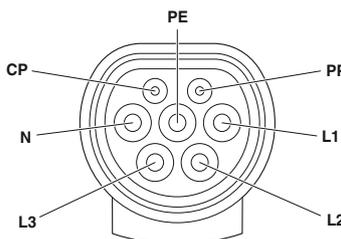
Accessories			
Description	Type	Order No.	Pcs./Pkt.
	<b>Holder</b> Without vehicle charging connector recognition	<b>EV-T2AC-PARK</b>	<b>1624148</b>
<b>AC infrastructure charging outlet</b> with locking actuator (12 V operating voltage)	<b>EV-T2M3SE12-1AC32A-0,7M6,0E10</b>	<b>1628124</b>	1



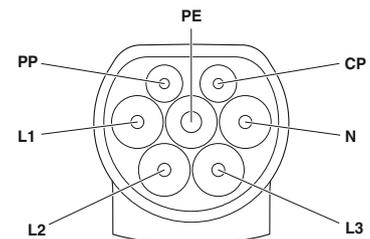
Technical data		
	20 A	32 A
Number of phases	3	3
Rated voltage	480 V AC	480 V AC
Rated current	20 A	32 A
Standards	IEC 62196-2	IEC 62196-2
Charging mode	Mode 3, Case B	Mode 3, Case B
Ambient temperature (operation)	-30°C ... 50°C	-30°C ... 50°C
Number of power contacts	5 (L1, L2, L3, N, PE)	5 (L1, L2, L3, N, PE)
Insertion/withdrawal cycles	> 10,000	> 10,000
Insertion/withdrawal force	< 100 N	< 100 N
Degree of protection (when plugged in)	IP44	IP44
Degree of protection (with protective cap)	IP54	IP54
<b>Cable data</b>		
Cable type	straight	straight
Cable length	5 m	5 m
Cable diameter	12.8 mm ±0.4 mm	17 mm ±0.4 mm
Cable structure	5 x 2.5 mm <sup>2</sup> + 1 x 0.5 mm <sup>2</sup>	5 x 6.0 mm <sup>2</sup> + 1 x 0.5 mm <sup>2</sup>
Sheath color	black	black

Ordering data			
Description	Order No.	Pcs./Pkt.	Order No.
	20 A		32 A
<b>Mobile AC charging cable with type 2 AC vehicle charging connector and type 2 infrastructure charging plug</b>	<b>1097299</b>	1	<b>1628125</b>

Accessories			
Description	Type	Order No.	Pcs./Pkt.
	<b>Holder</b> Without vehicle charging connector recognition	<b>EV-T2AC-PARK</b>	<b>1624148</b>
<b>AC infrastructure charging outlet</b> with locking actuator (12 V operating voltage)	<b>EV-T2M3SE12-3AC32A-0,7M6,0E10</b>	<b>1405214</b>	1



Vehicle charging connector pin assignment



Infrastructure charging plug pin assignment

### Mobile GB/T design

- Mobile charging cables for the Chinese charging infrastructure
- Vehicle- and infrastructure-side locking mechanism with lever locking
- Additional locking option with padlock
- Vehicle charging connector and infrastructure charging plug with protective cap

**Notes:**  
Upon request, we can also supply charging connectors with your company logo, as well as further cable types and lengths.



**1-phase, gray-black, with a straight metric cable**



**3-phase, gray-black, with a straight metric cable**

Technical data		
	16 A	32 A
Number of phases	1	1
Rated voltage	250 V	250 V
Rated current	16 A	32 A
Standards	GB/T 20234.2-2015	GB/T 20234.2-2015
Charging mode	Mode 3, Case B	Mode 3, Case B
Ambient temperature (operation)	-30°C ... 50°C	-30°C ... 50°C
Number of power contacts	3 (L, N, PE)	3 (L, N, PE)
Insertion/withdrawal cycles	> 10,000	> 10,000
Insertion/withdrawal force	< 100 N	< 100 N
Degree of protection (when plugged in)	IP55	IP55
Degree of protection (with protective cap)	IP54	IP54
<b>Cable data</b>		
Cable type	straight	straight
Cable length	5 m	5 m
Cable diameter	10.2 mm ±0.3 mm	12.8 mm ±0.4 mm
Cable structure	3 x 2.5 mm <sup>2</sup> + 1 x 0.5 mm <sup>2</sup>	3 x 6.0 mm <sup>2</sup> + 1 x 0.5 mm <sup>2</sup>
Sheath color	black	black

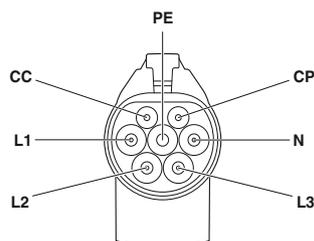
Technical data		
	16 A	32 A
Number of phases	3	3
Rated voltage	440 V	440 V
Rated current	16 A	32 A
Standards	GB/T 20234.2-2015	GB/T 20234.2-2015
Charging mode	Mode 3, Case B	Mode 3, Case B
Ambient temperature (operation)	-30°C ... 50°C	-30°C ... 50°C
Number of power contacts	5 (L1, L2, L3, N, PE)	5 (L1, L2, L3, N, PE)
Insertion/withdrawal cycles	> 10,000	> 10,000
Insertion/withdrawal force	< 100 N	< 100 N
Degree of protection (when plugged in)	IP55	IP55
Degree of protection (with protective cap)	IP54	IP54
<b>Cable data</b>		
Cable type	straight	straight
Cable length	5 m	5 m
Cable diameter	12.8 mm ±0.4 mm	17 mm ±0.4 mm
Cable structure	5 x 2.5 mm <sup>2</sup> + 1 x 0.5 mm <sup>2</sup>	5 x 6.0 mm <sup>2</sup> + 1 x 0.5 mm <sup>2</sup>
Sheath color	black	black

Ordering data				
Description	Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
	16 A		32 A	
<b>Mobile AC charging cable with a GB/T AC vehicle charging connector and a GB/T infrastructure charging plug</b>				
without additional locking option with padlock	1627603	1	1627605	1
with additional locking option with padlock	1623515	1	1623516	1

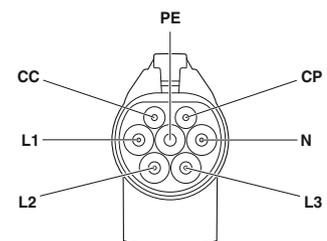
Ordering data				
Description	Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
	16 A		32 A	
<b>Mobile AC charging cable with a GB/T AC vehicle charging connector and a GB/T infrastructure charging plug</b>				
without additional locking option with padlock	1627604	1	1627606	1
with additional locking option with padlock	1623517	1	1624138	1

Accessories			
Description	Type	Order No.	Pcs./Pkt.
	<b>Holder</b>		
Without vehicle charging connector recognition	<b>EV-GBAC-PARK</b>	1624142	1
<b>AC infrastructure charging outlet with locking actuator</b> (12 V operating voltage)			
1-phase	<b>EV-GBM3SL12-1AC32A-0,7M6,0E10T</b>	1039245	1
3-phase			

Accessories			
Description	Type	Order No.	Pcs./Pkt.
	<b>Holder</b>		
Without vehicle charging connector recognition	<b>EV-GBAC-PARK</b>	1624142	1
<b>AC infrastructure charging outlet with locking actuator</b> (12 V operating voltage)			
1-phase			
3-phase	<b>EV-GBM3SL12-3AC32A-0,7M6,0E10T</b>	1050941	1



Vehicle charging connector pin assignment



Infrastructure charging plug pin assignment

# Charging connection systems

## AC charging cables

### Adapter charging cables

- For charging at European type 2 and Chinese GB/T charging stations
- Locking mechanism with lever locking for type 1 and GB/T
- Locking mechanism with electromechanical locking actuator for type 2
- Additional locking option with padlock for type 1 and GB/T
- Vehicle charging connector and infrastructure charging plug with protective cap

**Notes:**  
Upon request, we can also supply charging connectors with your company logo, as well as further cable types and lengths.



**Type 1 (vehicle) to type 2 (infrastructure), 1-phase, gray-black, with a spiraled metric cable**



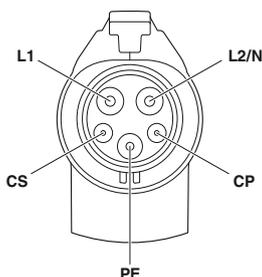
**Type 1 (vehicle) to type 2 (infrastructure), 1-phase, gray-black, with a straight metric cable**



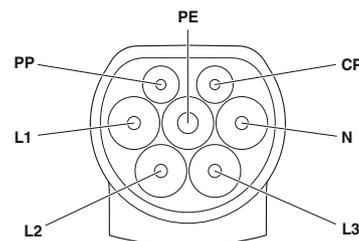
	Technical data		Technical data	
	20 A	32 A	20 A	32 A
Number of phases	1	1	1	1
Rated voltage	250 V AC	250 V AC	250 V AC	250 V AC
Rated current	20 A	32 A	20 A	32 A
Standards	IEC 62196-2	IEC 62196-2	IEC 62196-2	IEC 62196-2
Charging mode	Mode 3, Case B			
Resistor coding	480 Ω (Lever actuated) 150 Ω (Lever not actuated)	480 Ω (Lever actuated) 150 Ω (Lever not actuated)	480 Ω (Lever actuated) 150 Ω (Lever not actuated)	480 Ω (Lever actuated) 150 Ω (Lever not actuated)
Ambient temperature (operation)	-30°C ... 50°C	-30°C ... 50°C	-30°C ... 50°C	-30°C ... 50°C
Number of power contacts	3 (L1, N, PE)			
Insertion/withdrawal cycles	> 10,000	> 10,000	> 10,000	> 10,000
Insertion/withdrawal force	< 75 N	< 75 N	< 75 N	< 75 N
Degree of protection (when plugged in)	IP44	IP44	IP44	IP44
Degree of protection (with protective cap)	IP54	IP54	IP54	IP54
<b>Cable data</b>				
Cable type	spiraled	spiraled	straight	straight
Cable length	4 m	4 m	5 m	5 m
Cable diameter	10.2 mm ±0.3 mm	12.8 mm ±0.4 mm	10.2 mm ±0.3 mm	12.8 mm ±0.4 mm
Cable structure	3 x 2.5 mm <sup>2</sup> + 1 x 0.5 mm <sup>2</sup>	3 x 6.0 mm <sup>2</sup> + 1 x 0.5 mm <sup>2</sup>	3 x 2.5 mm <sup>2</sup> + 1 x 0.5 mm <sup>2</sup>	3 x 6.0 mm <sup>2</sup> + 1 x 0.5 mm <sup>2</sup>
Sheath color	black	black	black	black

Description	Ordering data				Ordering data			
	Order No.	Pcs./Pkt.						
<b>Mobile AC adapter cable with a vehicle charging connector and an infrastructure charging plug without additional locking option with padlock</b>	<b>1628025</b>	1	<b>1628026</b>	1	<b>1628027</b>	1	<b>1628028</b>	1
with additional locking option with padlock	<b>1628020</b>	1	<b>1628021</b>	1	<b>1628022</b>	1	<b>1628023</b>	1

Description	Accessories			Accessories		
	Type	Order No.	Pcs./Pkt.	Type	Order No.	Pcs./Pkt.
<b>Holder</b> Without vehicle charging connector recognition	<b>EV-T1AC-PARK</b>	<b>1624139</b>	1	<b>EV-T1AC-PARK</b>	<b>1624139</b>	1
<b>AC infrastructure charging outlet with locking actuator (12 V operating voltage)</b> 1-phase 3-phase	<b>EV-T2M3SE12-1AC32A-0,7M6,0E10</b>	<b>1628124</b>	1	<b>EV-T2M3SE12-1AC32A-0,7M6,0E10</b>	<b>1628124</b>	1



Type 1 vehicle charging connector pin assignment



Type 2 infrastructure charging plug pin assignment



**Type 1 (vehicle) to GB/T (infrastructure),  
1-phase, gray-black,  
with a straight metric cable**



**Type 2 (vehicle) to GB/T (infrastructure),  
1-phase, gray-black,  
with a straight metric cable**



**GB/T (vehicle) to type 2 (infrastructure),  
gray-black,  
with a straight metric cable**

Technical data	
16 A	32 A
1	1
250 V	250 V AC
16 A	32 A
GB/T 20234.2-2015	GB/T 20234.2-2015
Mode 3, Case B	Mode 3, Case B
680 Ω + 2.7 kΩ (Lever actuated)	480 Ω (Lever actuated)
680 Ω (Lever not actuated)	150 Ω (Lever not actuated)
-30°C ... 50°C	-30°C ... 50°C
3 (L1, N, PE)	3 (L1, N, PE)
> 10,000	> 10,000
< 75 N	< 75 N
IP44	IP44
IP54	IP54
straight	straight
5 m	5 m
10.2 mm ±0.3 mm	12.8 mm ±0.4 mm
3 x 2.5 mm <sup>2</sup> + 1 x 0.5 mm <sup>2</sup>	3 x 6.0 mm <sup>2</sup> + 1 x 0.5 mm <sup>2</sup>
black	black

Technical data	
32 A	
1	
250 V	
32 A	
IEC 62196-2	
Mode 3, Case B	
220 Ω + 3...3 kΩ (Lever actuated)	
220 Ω (Lever not actuated)	
-30°C ... 50°C	
3 (L, N, PE)	
> 10,000	
< 100 N	
IP55	
IP54	
straight	
5 m	
12.8 mm ±0.4 mm	
3 x 6.0 mm <sup>2</sup> + 1 x 0.5 mm <sup>2</sup>	
black	

Technical data	
32 A, 1-phase	32 A, 3-phase
1	3
250 V	440 V
32 A	32 A
IEC 62196-2	IEC 62196-2
Mode 3, Case B	Mode 3, Case B
220 Ω + 3...3 kΩ (Lever actuated)	220 Ω + 3...3 kΩ (Lever actuated)
220 Ω (Lever not actuated)	220 Ω (Lever not actuated)
-30°C ... 50°C	-30°C ... 50°C
3 (L, N, PE)	5 (L1, L2, L3, N, PE)
> 10,000	> 10,000
< 100 N	< 100 N
IP55	IP55
IP54	IP54
straight	straight
5 m	5 m
12.8 mm ±0.4 mm	17 mm ±0.4 mm
3 x 6.0 mm <sup>2</sup> + 1 x 0.5 mm <sup>2</sup>	5 x 6.0 mm <sup>2</sup> + 1 x 0.5 mm <sup>2</sup>
black	black

Ordering data			
Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
16 A		32 A	

Ordering data			
Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
32 A			

Ordering data			
Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
32 A, 1-phase		32 A, 3-phase	

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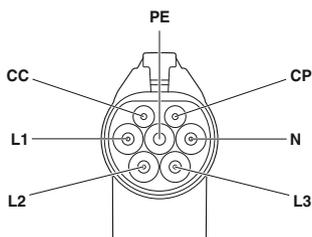
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1050702 1 1628001 1

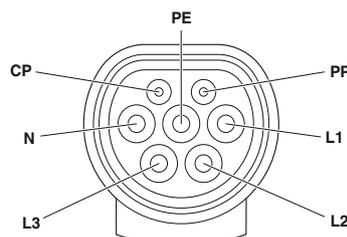
Accessories		
Type	Order No.	Pcs./Pkt.
EV-T1AC-PARK	1624139	1
EV-GBM3SL12-1AC32A-0,7M6,0E10T	1039245	1

Accessories		
Type	Order No.	Pcs./Pkt.
EV-T2AC-PARK	1624148	1
EV-GBM3SL12-1AC32A-0,7M6,0E10T	1039245	1

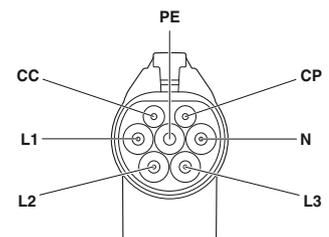
Accessories		
Type	Order No.	Pcs./Pkt.
EV-GBAC-PARK	1624142	1
EV-T2M3SE12-1AC32A-0,7M6,0E10	1628124	1
EV-T2M3SE12-3AC32A-0,7M6,0E10	1405214	1



GB/T infrastructure charging plug pin assignment



Type 2 vehicle charging connector pin assignment



GB/T vehicle charging connector pin assignment



### The ideal interface for mobile charging cables

Our standardized AC infrastructure socket outlets can be used, for example, in public AC charging stations or compact wall boxes, and allow vehicles to be charged via a mobile AC charging cable in accordance with charging mode 3, case B. This means that you achieve a significantly higher power transmission than with charging via standard household outlets.

The charging outlets are pre-assembled, compact, highly flexible, and suitable for both indoor and outdoor use. Versions are available for the European type 2 standard and for the Chinese GB/T standard. The type 1 standard for North America and Japan does not stipulate an infrastructure socket outlet.

### Fast, flexible mounting

The modular, space-saving design of the infrastructure socket outlets allows for flexible front and rear mounting, even on compact wall boxes. A drainage tube and different types of protective covers can be installed as an option. We can also supply the cable end preassembled, compacted, or with a step cut upon request.

### Safe charging process

Thanks to a locking actuator, the infrastructure charging plug is reliably prevented from being pulled out during the charging process. The lock is controlled via electronics integrated into the actuator, and the current status can be queried. In the event of an emergency, e.g. a power outage, the locking actuator can also be unlocked manually by opening the charging station.

### Your advantages

- Comprehensive product range for type 2 and GB/T
- Also suitable for compact wall boxes, thanks to the space-saving design
- Highly flexible, thanks to the modular design for front and rear mounting
- High level of safety during the charging process, thanks to the integrated locking actuator including position recognition and manual emergency unlocking
- Efficient power transmission and long-term stability, thanks to silver-plated power and signal contacts
- No condensation issues, thanks to the integrated drainage system with discharge nozzle
- Developed and produced in accordance with the IATF 16949 automotive standard and ISO 9001

**i** Your web code: #2100



### Type 2 charging outlets

The type 2 charging outlet in accordance with IEC 62196 is designed for single- and three-phase charging within Europe. It is available both in a modular design for front and rear mounting with rear-side protective-cover screw connections, and as an easy-mount version for rear mounting with front-side protective-cover screw connections. The advantage of the easy-mount version is that the protective cover can be replaced conveniently without having to open the wall box or charging station.



### GB/T charging outlets

The charging outlet in accordance with GB/T 20234 is designed for charging in line with Chinese infrastructure. It is very similar to the type 2 charging outlet. In addition to the locking actuator, a notch is provided for the lever of the infrastructure charging plug in accordance with standards. Moreover, every power contact is equipped with integrated temperature sensors in accordance with the new GB/T standard.



### Front and rear mounting

The GB/T and type 2 infrastructure socket outlets (with the exception of the easy-mount versions) can be mounted onto the housing wall of the charging station or wall box from the front and from the back. This enables flexible use.



### Matching protective cover type 2

We provide covers for protecting type 2 infrastructure socket outlets against environmental influences in accordance with IP54 and against vandalism. To ensure the consistent branding of your charging stations and wall boxes, we can provide a tailored design with your company logo upon request. The protective covers are listed in the “Accessories” section.



### Matching GB/T protective covers

GB/T protective covers provide the same advantages as the type 2 protective covers, but they also vary in respect to the type of cover mechanism – self-closing or self-opening. All installation positions are possible. The protective cover can therefore be attached from the left, right, top, or bottom. The protective covers are listed in the “Accessories” section.

# Charging connection systems

## AC infrastructure socket outlets

### Type 2

- For installation in European charging stations
- Locking by means of electromechanical locking actuator

**Notes:**  
Further cable lengths available on request.



For protective covers  
screwed on from the back



For protective covers  
screwed on from the front (easy-mount)



	Technical data			Technical data		
	20 A, 3-phase	32 A, 1-phase	32 A, 3-phase	20 A, 3-phase	32 A, 1-phase	32 A, 3-phase
Number of phases	3	1	3	3	1	3
Rated voltage	480 V AC	250 V AC	480 V AC	480 V AC	250 V AC	480 V AC
Rated current	20 A	32 A	32 A	20 A	32 A	32 A
Standards	IEC 62196-2					
Charging mode	Mode 3, Case B					
Dimensions (H x W x D)	75 mm x 96 mm x 76.2 mm	75 mm x 96 mm x 76.2 mm	75 mm x 96 mm x 76.2 mm	75 mm x 96 mm x 76.2 mm	75 mm x 96 mm x 76.2 mm	75 mm x 96 mm x 76.2 mm
Ambient temperature (operation)	-30°C ... 50°C					
Number of power contacts	5 (L1, L2, L3, N, PE)	3 (L1, N, PE)	5 (L1, L2, L3, N, PE)	5 (L1, L2, L3, N, PE)	3 (L1, N, PE)	5 (L1, L2, L3, N, PE)
Insertion/withdrawal cycles	> 10,000	> 10,000	> 10,000	> 10,000	> 10,000	> 10,000
Degree of protection (when plugged in)	IP44	IP44	IP44	IP44	IP44	IP44
Degree of protection (with protective cover)	IP54	IP54	IP54	IP54	IP54	IP54
<b>Cable data</b>						
Cable type	Single wires					
Cable length	0.7 m					
Cable structure	5x 2.5 mm <sup>2</sup> + 2x 0.5 mm <sup>2</sup>	3x 6.0 mm <sup>2</sup> + 2x 0.5 mm <sup>2</sup>	5x 6.0 mm <sup>2</sup> + 2x 0.5 mm <sup>2</sup>	5x 2.5 mm <sup>2</sup> + 2x 0.5 mm <sup>2</sup>	3x 6.0 mm <sup>2</sup> + 2x 0.5 mm <sup>2</sup>	5x 6.0 mm <sup>2</sup> + 2x 0.5 mm <sup>2</sup>
<b>Locking actuator data</b>						
Mechanical emergency release	available	available	available	available	available	available
Lock recognition	available	available	available	available	available	available

Description	Ordering data			Ordering data		
	Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
<b>Type 2 AC infrastructure socket outlet</b> with locking actuator (12 V operating voltage)	<b>1405213</b>	1	<b>1628124</b>	1	<b>1405214</b>	1
<b>Type 2 AC infrastructure socket outlet</b> with locking actuator (24 V operating voltage)	<b>1405215</b>	1			<b>1405216</b>	1

Description	Accessories			Accessories		
	Type	Order No.	Pcs./Pkt.	Type	Order No.	Pcs./Pkt.
<b>Protective cover</b> , can be fastened with screws from the back Self-closing	<b>EV-T2SC</b>	<b>1405217</b>	1			
<b>Panel mounting frame</b> , can be screwed on the back As an alternative to the protective cover	<b>EV-T2SF</b>	<b>1405218</b>	1			
<b>Protective cover</b> , can be fastened with screws horizontally from the front Self-closing				<b>EV-T2SC-EMF</b>	<b>1069199</b>	1
<b>Protective cover</b> , can be fastened with screws vertically from the front Self-closing				<b>EV-T2SC-EM</b>	<b>1627635</b>	1
<b>Fixing frame</b> , can be screwed on the front Required for protective covers with front vertical screw connection				<b>EV-T2SF-EM</b>	<b>1627637</b>	1





### Options to benefit you

A selection of various accessories suitable for our charging cables and charging outlets is also available. You can use these to add useful functions such as advanced protection against environmental factors, or for enabling the fast and cost-effective repair of a damaged charging cable.

### Your advantages

- Reliable protection for charging interfaces against environmental influences and vandalism
- Secure hold for charging connectors when vehicles are not being charged
- Consistent branding of your charging station or wall box with your company logo
- Quick and cost-effective repair of charging connectors in the event of damage
- Developed and produced in accordance with the IATF 16949 automotive standard and ISO 9001

**i** Your web code: [#2101](#)



### Repair kits for cooled DC charging cables

Charging cables at public charging stations, and the mating face in particular, are subject to high levels of mechanical strain. Our repair kits can be used to quickly replace the mating face frames and power contacts on a damaged HPC charging connector, thereby minimizing downtime and ensuring that the costly replacement of the entire HPC charging cable is not necessary.



### Holders for DC charging cables

Matching holders for DC charging cables are mounted on the outside of the charging station or wall box. They ensure the vehicle charging connector is held securely in place and protected against the elements whenever charging is not taking place.



### Protective covers for AC infrastructure socket outlets

We provide covers for protecting infrastructure socket outlets against environmental influences in accordance with IP54 as well as against vandalism. To ensure the consistent branding of your charging stations and wall boxes, we can provide a tailored design with your company logo upon request.



### Holders for AC charging cables

Matching holders for AC charging cables are mounted on the outside of the charging station or wall box. They ensure the vehicle charging connector is held securely in place and protected against the elements whenever charging is not taking place.

## Accessories

### Repair kits for cooled HPC DC charging cables

- Kits for the cost-effective repair of damaged CCS type 2 HPC charging connectors
- Allows for the replacement of the mating face frame and, optionally, DC contacts
- It is not necessary to open the housing or to drain off the coolant



Mating face frame, bit, and DC contacts, for CCS type 2

General data		Technical data		
Type		With 5x M4X10 rounded head screws with Torx safety drive With special bit for safety screwdriver With DC contact maintained with integrated front part of DC contacts and their temperature sensors		
Standards		IEC 62196-3-1		
Charging standard		CCS type 2 Combined Charging System High Power Charging		
Charging mode		Mode 4		
Color		black		
Ambient temperature (operation)		-30°C ... 50°C		
Ambient temperature (storage/transport)		-40°C ... 80°C		
Description		Ordering data		
<b>Repair kit</b>		<b>Type</b>	<b>Order No.</b>	<b>Pcs./Pkt.</b>
		EV-T2CCS-MF-M4X10-BIT-CTS	1085799	1



Mating face frame and bit,  
for CCS type 2



Mating face frame,  
for CCS type 2

Technical data

With 5x M4X10 rounded head screws with Torx safety drive  
With special bit for safety screwdriver

IEC 62196-3-1  
CCS type 2  
Combined Charging System  
High Power Charging  
Mode 4  
black  
-30°C ... 50°C  
-40°C ... 80°C

Technical data

With 5x M4X10 rounded head screws with Torx safety drive

IEC 62196-3-1  
CCS type 2  
Combined Charging System  
High Power Charging  
Mode 4  
black  
-30°C ... 50°C  
-40°C ... 80°C

Ordering data

Type	Order No.	Pcs./Pkt.
EV-T2CCS-MF-M4X10-BIT	1085798	1

Ordering data

Type	Order No.	Pcs./Pkt.
EV-T2CCS-MF-M4X10	1085797	1

### Holders for DC charging cables

- Park position for vehicle charging connector
- For mounting on charging stations
- Stable vehicle charging connector parking

**Notes:**  
The screw connection positions on all holders listed here are identical



CCS type 1

Standards  
Charging standard  
Charging mode  
Color  
Dimensions (H x W x D)  
Mounting  
Fixing of vehicle charging connector  
Removal of vehicle charging connector  
Ambient temperature (operation)  
Ambient temperature (storage/transport)  
Degree of protection (when plugged in)

Technical data	
SAE J1772	CCS type 1
Mode 4	black
75 mm x 118 mm x 37.5 mm	Front mounting
With actuation lever	Lever actuation and removal
-30°C ... 50°C	-40°C ... 80°C
IP54	

Description
<b>Holder</b>
Without vehicle charging connector recognition
With vehicle charging connector recognition
Fixing with hexagonal head screws

Ordering data		
Type	Order No.	Pcs./Pkt.
EV-T1CCS-PARK	1624143	1



CCS type 2



GB/T

Technical data

IEC 62196-3  
 CCS type 2  
 Mode 4  
 black  
 75 mm x 118 mm x 54 mm  
 Front mounting  
 With locking clips for locking contour  
 Lifting and removal  
 -30°C ... 50°C  
 -40°C ... 80°C  
 IP54

Technical data

GB/T 20234.3  
 GB/T  
 Mode 4  
 black  
 91 mm x 91 mm x 51 mm  
 Front mounting  
 With actuation lever  
 Lever actuation and removal  
 -30°C ... 50°C  
 -40°C ... 80°C  
 IP54

Ordering data

Type	Order No.	Pcs./Pkt.
EV-T2CCS-PARK	1624153	1

Ordering data

Type	Order No.	Pcs./Pkt.
EV-GBDC-PARK	1623770	1
EV-GBDC-PARK-SW	1623497	1
EV-GBDC-PARK-R	1623496	1

### Holders for AC charging cables

- Park position for vehicle charging connector
- For mounting on charging stations
- Stable vehicle charging connector parking

Notes:
The screw connection positions on all holders listed here are identical
The screw connection positions correspond to the AC infrastructure socket outlets



**Type 1**

Standards	SAE J1772
Charging standard	Type 1
Charging mode	Mode 3
Color	black
Dimensions (H x W x D)	75 mm x 75 mm x 37.5 mm
Mounting	Front mounting
Fixing of vehicle charging connector	With actuation lever
Removal of vehicle charging connector	Lever actuation and removal
Ambient temperature (operation)	-30°C ... 50°C
Ambient temperature (storage/transport)	-40°C ... 80°C
Degree of protection (when plugged in)	IP54

#### Technical data

Standards	SAE J1772
Charging standard	Type 1
Charging mode	Mode 3
Color	black
Dimensions (H x W x D)	75 mm x 75 mm x 37.5 mm
Mounting	Front mounting
Fixing of vehicle charging connector	With actuation lever
Removal of vehicle charging connector	Lever actuation and removal
Ambient temperature (operation)	-30°C ... 50°C
Ambient temperature (storage/transport)	-40°C ... 80°C
Degree of protection (when plugged in)	IP54

#### Ordering data

Description	Type	Order No.	Pcs./Pkt.
<b>Holder</b> Without vehicle charging connector recognition	<b>EV-T1AC-PARK</b>	<b>1624139</b>	<b>1</b>



Type 2



GB/T

**Technical data**

IEC 62196-2  
 Type 2  
 Mode 3  
 black  
 75 mm x 75 mm x 44.7 mm  
 Front mounting  
 With locking clips for locking contour  
 Lifting and removal  
 -30°C ... 50°C  
 -40°C ... 80°C  
 IP54

**Technical data**

GB/T 20234.2  
 GB/T  
 Mode 3  
 black  
 76.6 mm x 76.6 mm x 40 mm  
 Front mounting  
 With actuation lever  
 Lever actuation and removal  
 -30°C ... 50°C  
 -40°C ... 80°C  
 IP54

**Ordering data**

Type	Order No.	Pcs./Pkt.
EV-T2AC-PARK	1624148	1

**Ordering data**

Type	Order No.	Pcs./Pkt.
EV-GBAC-PARK	1624142	1

# Charging connection systems

## Accessories

### Protective covers for type 2 AC infrastructure socket outlets

Two versions are available for increasing the degree of protection of type 2 AC infrastructure socket outlets to IP54:

- Protective cover with rear screw connection
- Protective cover with front screw connection, easy to replace



Protective cover that can be screwed on the back, with alternative panel mounting frame



Protective cover that can be screwed on the front, with fixing frame

Standards  
Charging standard  
Charging mode  
Color  
Dimensions (H x W x D)  
Ambient temperature (operation)

Technical data		
Standards	IEC 62196-2	
Charging standard	Type 2	
Charging mode	Mode 3, Case B	
Color	black	
Dimensions (H x W x D)	85 mm x 93.7 mm x 32.5 mm	
Ambient temperature (operation)	-30°C ... 50°C	

Technical data		
Standards	IEC 62196-2	
Charging standard	Type 2	
Charging mode	Mode 3, Case B	
Color	black	
Dimensions (H x W x D)	85 mm x 93.7 mm x 32.5 mm	
Ambient temperature (operation)	-30°C ... 50°C	

#### Description

**Protective cover**, can be fastened with screws from the back  
Self-closing

**Panel mounting frame**, can be screwed on the back  
As an alternative to the protective cover

**Protective cover**, can be fastened with screws horizontally from the front  
Self-closing

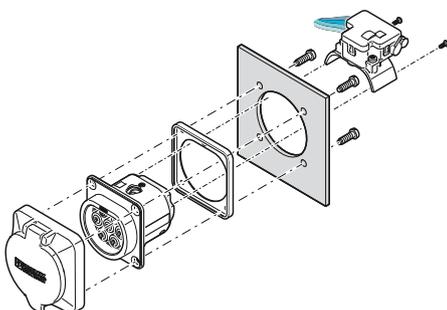
**Protective cover**, can be fastened with screws vertically from the front  
Self-closing

**Fixing frame**, can be screwed on the front

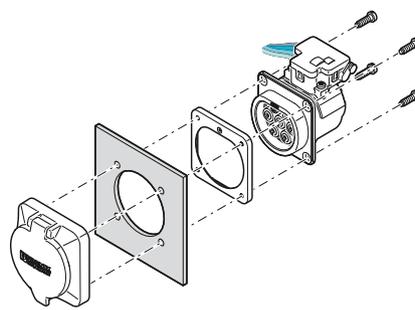
Required for protective covers with front vertical screw connection

Ordering data		
Type	Order No.	Pcs./Pkt.
EV-T2SC	1405217	1
EV-T2SF	1405218	1

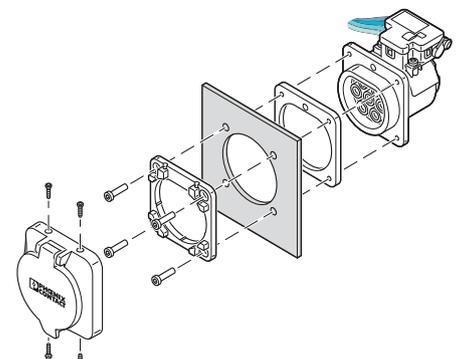
Ordering data		
Type	Order No.	Pcs./Pkt.
EV-T2SC-EMF	1069199	1
EV-T2SC-EM	1627635	1
EV-T2SF-EM	1627637	1



Front mounting of the infrastructure socket outlet with locking actuator removed



Rear panel mounting of the infrastructure socket outlet, protective cover screwed on the back



Rear panel mounting of the infrastructure socket outlet, protective cover screwed on the front

**Protective covers for GB/T AC infrastructure socket outlets**

Two versions are available for increasing the degree of protection of GB/T AC infrastructure socket outlets to IP54:

- Protective cover, self-opening
- Protective cover, self-closing



Protective cover that can be screwed on the back, self-opening



Protective cover that can be screwed on the back, self-closing

Standards  
Charging standard  
Charging mode  
Color  
Dimensions (H x W x D)  
Ambient temperature (operation)

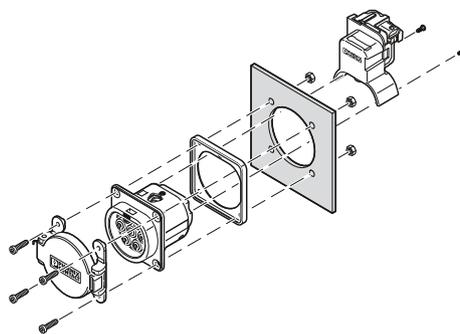
Technical data			
Standards	GB/T 20234.2		
Charging standard	GB/T Type 2		
Charging mode	Mode 3, Case B		
Color	black		
Dimensions (H x W x D)	76.6 mm x 90.5 mm x 24.7 mm		
Ambient temperature (operation)	-30°C ... 50°C		

Ordering data			
Type	Order No.	Pcs./Pkt.	
EV-GBSCO	1623415	1	

Description  
**Protective cover**  
Self-opening  
Self-closing

Technical data			
Standards	GB/T 20234.2		
Charging standard	GB/T Type 2		
Charging mode	Mode 3, Case B		
Color	black		
Dimensions (H x W x D)	76.6 mm x 76.6 mm x 24.7 mm		
Ambient temperature (operation)	-30°C ... 50°C		

Ordering data			
Type	Order No.	Pcs./Pkt.	
EV-GBSC	1623416	1	



Front mounting of the infrastructure socket outlet with locking actuator removed



### The ideal charging interface

The universal CCS vehicle inlets allow for fast DC and conventional AC charging with just one mating face. This covers all charging situations. The inlets can accommodate both AC and DC vehicle charging connectors, making them the ideal interface for charging all types of electric vehicles. Various power versions with 12 V or 24 V locking actuators are available, which makes it possible to use them with a variety of applications.

Along with the CCS vehicle inlets, we also provide DC inlets in accordance with the Chinese GB/T standard.

### Uniform dimensions

The CCS vehicle inlets feature uniform outer contour dimensions. This allows electric vehicle manufacturers to provide for the same installation space in the car body. A vehicle inlet for the North American market (CCS type 1) fits just as well as an inlet for the European market (CCS type 2).

### Important note

These products are exclusively developed, manufactured, and distributed by PHOENIX CONTACT electromobility GmbH.

Interested? Do you have any questions? Please contact our Sales Team at [emobility@phoenixcontact.com](mailto:emobility@phoenixcontact.com) or by phone on +49 5235 3-43890.

### Your advantages

- Quick-response sensor technology provides fast and accurate temperature measurement at all contacts
- Efficient power transmission and long-term stability, thanks to silver-plated contact surfaces
- Uniform dimensions in terms of installation space, screw-connection points, and outer contour (CCS inlets only)
- With protective caps for the AC and DC contacts (CCS inlets only)
- Developed and produced in accordance with the IATF 16949 automotive standard and ISO 9001
- Tested in accordance with selected tests from automotive standards LV124, LV214, LV215-2, GB/T

**i** Your web code: #2090



**CCS type 1**

These vehicle inlets are suitable for charging electric vehicles with alternating current (AC) and direct current (DC) in accordance with the American standard CCS type 1. The charging connector is locked in place during charging via an electromechanical actuator.



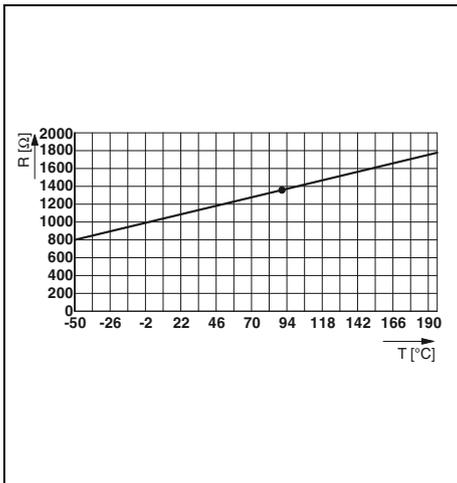
**CCS type 2**

These vehicle inlets are suitable for charging electric vehicles with alternating current (AC) and direct current (DC) in accordance with the European standard CCS type 2. The charging connector is locked in place during charging via an electromechanical actuator.



**GB/T**

These vehicle inlets are suitable for charging electric vehicles with direct current (DC) in accordance with the Chinese standard GB/T.



**High-precision temperature measuring**

The temperature at the power contacts must also be monitored to ensure a safe charging process. If the system overheats, for example in the event of high outside temperatures or an overload, this is detected by the PT1000 resistance sensors. In the event of overheating, the charging controller is then able to stop the charging process or reduce the charging power.



**Secure locking during charging**

The CCS vehicle inlets are equipped with an electromechanical locking actuator in accordance with standards. It locks the vehicle charging connector on the side of or directly on the locking clip in the mating face during the charging process. The actuator bolt is designed to withstand high pull-out forces. It is therefore not possible to pull out the charging connector during the charging process.



**Developing customer-specific inlets**

We develop inlets for your series vehicle production in accordance with your requirements. We can integrate functions such as LED displays, lighting, operating elements, and locking mechanisms. Thanks to our intelligent cooling concepts and a high-precision temperature measurement system, we are able to reduce the conductor cross sections, thus reducing the costs of the overall charging connection system.

# Charging connection systems

## Vehicle inlets

### CCS type 2

- Vehicle inlets for charging with alternating current (AC) and direct current (DC)
- European standard (CCS type 2)
- For installation in electric vehicles
- Locking by means of electromechanical locking actuator
- Additional cable lengths available on request



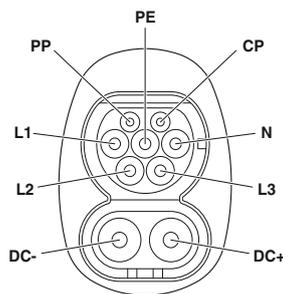
125 A DC, 20 A AC



125 A DC, 32 A AC

**Notes:**  
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	Technical data		Technical data					
	1-phase	3-phase	1-phase	3-phase				
Number of phases	1	3	1	3				
Rated voltage	250 V AC 850 V DC	480 V AC 850 V DC	250 V AC 850 V DC	480 V AC 850 V DC				
Rated current	20 A AC 125 A DC	20 A AC 125 A DC	32 A AC 125 A DC	32 A AC 125 A DC				
Standards	IEC 62196-3	IEC 62196-3	IEC 62196-3	IEC 62196-3				
Charging mode	Mode 2, 3, 4	Mode 2, 3, 4	Mode 2, 3, 4	Mode 2, 3, 4				
Dimensions (H x W x D)	111 mm x 130.4 mm x 107.4 mm	111 mm x 130.4 mm x 107.4 mm	111 mm x 130.4 mm x 107.4 mm	111 mm x 130.4 mm x 107.4 mm				
Ambient temperature (operation)	-30°C ... 50°C	-30°C ... 50°C	-30°C ... 50°C	-30°C ... 50°C				
Number of power contacts	5 (L1, N, PE, DC+, DC-)	7 (L1, L2, L3, N, PE, DC+, DC-)	5 (L1, N, PE, DC+, DC-)	7 (L1, L2, L3, N, PE, DC+, DC-)				
Insertion/withdrawal cycles	> 10,000	> 10,000	> 10,000	> 10,000				
Degree of protection (when plugged in)	IP55	IP55	IP55	IP55				
Degree of protection (with protective cover)	IP55	IP55	IP55	IP55				
<b>Cable data</b>								
Cable length	2 m	2 m	2 m	2 m				
Cable structure	2 x 35 mm <sup>2</sup> + 1 x 25 mm <sup>2</sup> + 2 x 2.5 mm <sup>2</sup> + 3 x 2 x 0.5 mm <sup>2</sup>	2 x 35 mm <sup>2</sup> + 1 x 25 mm <sup>2</sup> + 4 x 2.5 mm <sup>2</sup> + 3 x 2 x 0.5 mm <sup>2</sup>	2 x 35 mm <sup>2</sup> + 1 x 25 mm <sup>2</sup> + 2 x 6 mm <sup>2</sup> + 3 x 2 x 0.5 mm <sup>2</sup>	2 x 35 mm <sup>2</sup> + 1 x 25 mm <sup>2</sup> + 4 x 6 mm <sup>2</sup> + 2 x 0.5 mm <sup>2</sup> + 4 x 0.5 mm <sup>2</sup>				
<b>Locking actuator data</b>								
Mechanical emergency release	included	included	included	included				
Lock recognition	included	included	included	included				
<b>Ordering data</b>								
Description	Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
	1-phase		3-phase		1-phase		3-phase	
Vehicle inlet for charging with alternating current (AC) and direct current (DC), for installation in electric vehicles (EV)								
With locking actuator (12 V operating voltage)	1624131	1	1628386	1	1628385	1	1627096	1
With locking actuator (24 V operating voltage)	1004840	1	1018763	1	1018767	1	1004844	1



Vehicle inlet pin assignment



200 A DC, 20 A AC



200 A DC, 32 A AC

Technical data		Technical data	
1-phase	3-phase	1-phase	3-phase
1	3	1	3
250 V AC	480 V AC	250 V AC	480 V AC
850 V DC	850 V DC	850 V DC	850 V DC
20 A AC	200 A DC	200 A DC	200 A DC
200 A DC	32 A AC	32 A AC	32 A AC
IEC 62196-3	IEC 62196-3	IEC 62196-3	IEC 62196-3
Mode 2, 3, 4	Mode 2, 3, 4	Mode 2, 3, 4	Mode 2, 3, 4
111 mm x 130.4 mm x 107.4 mm	111 mm x 130.4 mm x 107.4 mm	111 mm x 130.4 mm x 107.4 mm	111 mm x 130.4 mm x 107.4 mm
-30°C ... 50°C	-30°C ... 50°C	-30°C ... 50°C	-30°C ... 50°C
5 (L1, N, PE, DC+, DC-)	7 (L1, L2, L3, N, PE, DC+, DC-)	5 (L1, N, PE, DC+, DC-)	7 (L1, L2, L3, N, PE, DC+, DC-)
> 10,000	> 10,000	> 10,000	> 10,000
IP55	IP55	IP55	IP55
IP55	IP55	IP55	IP55
2 m	2 m	2 m	2 m
2 x 70 mm <sup>2</sup> + 1 x 25 mm <sup>2</sup> + 2 x 2.5 mm <sup>2</sup> + 2 x 0.5 mm <sup>2</sup> + 4 x 0.5 mm <sup>2</sup>	2 x 70 mm <sup>2</sup> + 1 x 25 mm <sup>2</sup> + 4 x 2.5 mm <sup>2</sup> + 2 x 0.5 mm <sup>2</sup> + 4 x 0.5 mm <sup>2</sup>	2 x 70 mm <sup>2</sup> + 1 x 25 mm <sup>2</sup> + 2 x 6 mm <sup>2</sup> + 2 x 0.5 mm <sup>2</sup> + 4 x 0.5 mm <sup>2</sup>	2 x 70 mm <sup>2</sup> + 1 x 25 mm <sup>2</sup> + 4 x 6 mm <sup>2</sup> + 2 x 0.5 mm <sup>2</sup> + 4 x 0.5 mm <sup>2</sup>
included	included	included	included
included	included	included	included
Ordering data		Ordering data	
Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
1-phase		3-phase	
1628340	1	1628387	1
1004802	1	1004842	1
Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
1-phase		3-phase	
1018771	1	1627097	1
1018762	1	1004841	1

# Charging connection systems

## Vehicle inlets

### CCS type 1

- Vehicle inlets for charging with alternating current (AC) and direct current (DC)
- North American standard (CCS type 1)
- For installation in electric vehicles
- Locking by means of electromechanical locking actuator
- Additional cable lengths available on request



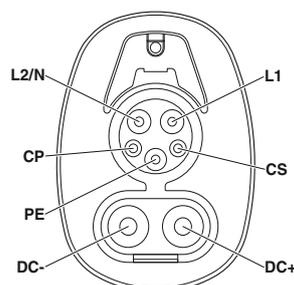
125 A DC



200 A DC

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	Technical data		Technical data	
	20 A AC	32 A AC	20 A AC	32 A AC
Number of phases	1	1	1	1
Rated voltage	250 V AC 850 V DC	250 V AC 850 V DC	250 V AC 850 V DC	250 V AC 850 V DC
Rated current	20 A AC 125 A DC	32 A AC 125 A DC	20 A AC 200 A DC	32 A AC 200 A DC
Standards	SAE J1772	SAE J1772	SAE J1772	SAE J1772
Charging mode	Mode 2, 3, 4	Mode 2, 3, 4	Mode 2, 3, 4	Mode 2, 3, 4
Dimensions (H x W x D)	111 mm x 130.6 mm x 107.4 mm	111 mm x 130.6 mm x 107.4 mm	111 mm x 130.6 mm x 107.4 mm	111 mm x 130.6 mm x 107.4 mm
Ambient temperature (operation)	-30°C ... 50°C	-30°C ... 50°C	-30°C ... 50°C	-30°C ... 50°C
Number of power contacts	5 (L1, N, PE, DC+, DC-)	5 (L1, N, PE, DC+, DC-)	5 (L1, N, PE, DC+, DC-)	5 (L1, N, PE, DC+, DC-)
Insertion/withdrawal cycles	> 10,000	> 10,000	> 10,000	> 10,000
Degree of protection (when plugged in)	IP55	IP55	IP55	IP55
Degree of protection (with protective cover)	IP55	IP55	IP55	IP55
Cable data				
Cable length	2 m	2 m	2 m	2 m
Cable structure	2 x 35 mm <sup>2</sup> + 1 x 25 mm <sup>2</sup> + 2 x 2.5 mm <sup>2</sup> + 2 x 0.5 mm <sup>2</sup> + 4 x 0.5 mm <sup>2</sup>	2 x 35 mm <sup>2</sup> + 1 x 25 mm <sup>2</sup> + 2 x 6 mm <sup>2</sup> + 2 x 0.5 mm <sup>2</sup> + 4 x 0.5 mm <sup>2</sup>	2 x 70 mm <sup>2</sup> + 1 x 25 mm <sup>2</sup> + 2 x 2.5 mm <sup>2</sup> + 2 x 0.5 mm <sup>2</sup> + 4 x 0.5 mm <sup>2</sup>	2 x 70 mm <sup>2</sup> + 1 x 25 mm <sup>2</sup> + 2 x 6 mm <sup>2</sup> + 2 x 0.5 mm <sup>2</sup> + 4 x 0.5 mm <sup>2</sup>
Locking actuator data				
Mechanical emergency release	included	included	included	included
Lock recognition	included	included	included	included
	Ordering data		Ordering data	
Description	Order No.	Pcs./Pkt.	Order No.	Pcs./Pkt.
	20 A AC		32 A AC	
Vehicle inlet for charging with alternating current (AC) and direct current (DC), for installation in electric vehicles (EV)	1624154	1	1627896	1
	1018770	1	1627098	1



Vehicle inlet pin assignment

**GB/T**

- Vehicle inlets for charging with direct current (DC)
- Chinese standard (GB/T)
- For installation in electric vehicles
- Additional cable lengths available on request

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125 A DC



250 A DC

**Technical data**

**Technical data**

Rated voltage	1000 V
Rated current	125 A DC
Standards	GB/T 20234.1-2015, GB/T 20234.3-2015
Charging mode	Mode 4
Dimensions (H x W x D)	90 mm x 90 mm x 114.1 mm
Ambient temperature (operation)	-30°C ... 50°C
Number of power contacts	3 (DC+, DC-, PE)
Insertion/withdrawal cycles	> 10,000
Degree of protection (when plugged in)	IP55
Degree of protection (with protective cover)	IP55
Cable data	
Cable length	2 m
Cable structure	2 x 35 mm <sup>2</sup> + 1 x 25 mm <sup>2</sup> + 2 x 2.5 mm <sup>2</sup> + 2 x 0.5 mm <sup>2</sup> + 4 x 0.5 mm <sup>2</sup>

Rated voltage	1000 V
Rated current	250 A DC
Standards	GB/T 20234.1-2015, GB/T 20234.3-2015
Charging mode	Mode 4
Dimensions (H x W x D)	90 mm x 90 mm x 114.1 mm
Ambient temperature (operation)	-30°C ... 50°C
Number of power contacts	3 (DC+, DC-, PE)
Insertion/withdrawal cycles	> 10,000
Degree of protection (when plugged in)	IP55
Degree of protection (with protective cover)	IP55
Cable data	
Cable length	2 m
Cable structure	2 x 70 mm <sup>2</sup> + 1 x 25 mm <sup>2</sup> + 2 x 2.5 mm <sup>2</sup> + 2 x 0.5 mm <sup>2</sup> + 4 x 0.5 mm <sup>2</sup>

Rated voltage	1000 V
Rated current	250 A DC
Standards	GB/T 20234.1-2015, GB/T 20234.3-2015
Charging mode	Mode 4
Dimensions (H x W x D)	90 mm x 90 mm x 114.1 mm
Ambient temperature (operation)	-30°C ... 50°C
Number of power contacts	3 (DC+, DC-, PE)
Insertion/withdrawal cycles	> 10,000
Degree of protection (when plugged in)	IP55
Degree of protection (with protective cover)	IP55
Cable data	
Cable length	2 m
Cable structure	2 x 70 mm <sup>2</sup> + 1 x 25 mm <sup>2</sup> + 2 x 2.5 mm <sup>2</sup> + 2 x 0.5 mm <sup>2</sup> + 4 x 0.5 mm <sup>2</sup>

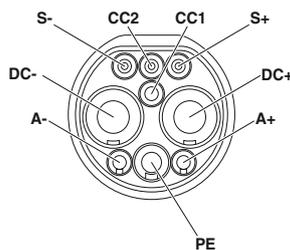
**Ordering data**

**Ordering data**

Description	
<b>Vehicle inlet</b> for charging with direct current (DC), for installation in electric vehicles (EV)	

Order No.	Pcs./Pkt.
1627493	1

Order No.	Pcs./Pkt.
1039550	1



Vehicle inlet pin assignment