

## CCS Type-2 – Charging Cable



Specification	CCS Type-2 – Charging Connector + Charging Cable
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### Product Definition

Charging standard	Combined Charging System Type-2
Standards / regulations	IEC 62196-1 IEC 62196-3
Approval	CE, on request
Country approval	On request
Confection line end	On request

### Dimensions Charging Connector

Width	76 mm
Height	209 mm
Depth	308 mm
Conductor length	On request

### Ambient Conditions

Ambient temperature (operation)	-30°C ... +50°C
Ambient temperature (storage/transport)	-40°C ... +80°C
Max. altitude	5.000 m (above sea level)
Degree of protection (plugged)	IP44
Degree of protection (unplugged)	IP20



## Electrical Properties

Rated voltage for power contacts	1000V DC	
Rated current for power contacts	60 A	200 A
Maximum charging power	60 kW	200 kW
Number of power contacts	3 (DC+ / DC- / PE)	
Rated voltage for signal contacts	30 V AC	
Rated current for signal contacts	2 A	
Number of signal contacts	2 (CP, PP)	
Note on the connection method	Crimp termination (cannot be disconnected)	
Resistor coding (between PE and PP)	1500 $\Omega$	
Temperature monitoring	2x Pt 1000	

## Mechanical Properties

Mating cycles	> 10.000
Insertion force	< 100 N
Withdrawal	< 100 N

## Design

Color housing / handle area	black
Color mating face	black
Housing with customer logo	On request

## Material

Material housing / handle area	Plastic
Material mating face	Plastic
Flammability rating	V0
Material contacts	Cu-Alloy
Material surface of contacts	Ag



## Cable

Cable structure	DC	
	60 A	200 A
	3 x 16 mm <sup>2</sup> + 3 x 2 x 0,75 mm <sup>2</sup>	2 x 70 mm <sup>2</sup> + 35 mm <sup>2</sup> + 3 x 2 x 0,75 mm <sup>2</sup>
Cable diameter	21,2 ± 0,4 mm	33,9 ± 0,5 mm
Cable resistance at 20°C (70 mm <sup>2</sup> )	≤ 0,272 Ω/km	
Cable resistance at 20°C (35 mm <sup>2</sup> )	≤ 0,554 Ω/km	
Cable resistance at 20°C (16 mm <sup>2</sup> )	≤ 1,21 Ω/km	
Cable resistance at 20°C (0,75 mm <sup>2</sup> )	≤ 26,0 Ω/km	
Wiring standard	DIN EN 50620	
Type of conductor	Straight	
Outer sheath, material	TPE-U	
Outer sheath, color	On request	
Minimum bending radius	10 x cable diameter with 200A (15 x with 60A)	

## Temperature Sensors

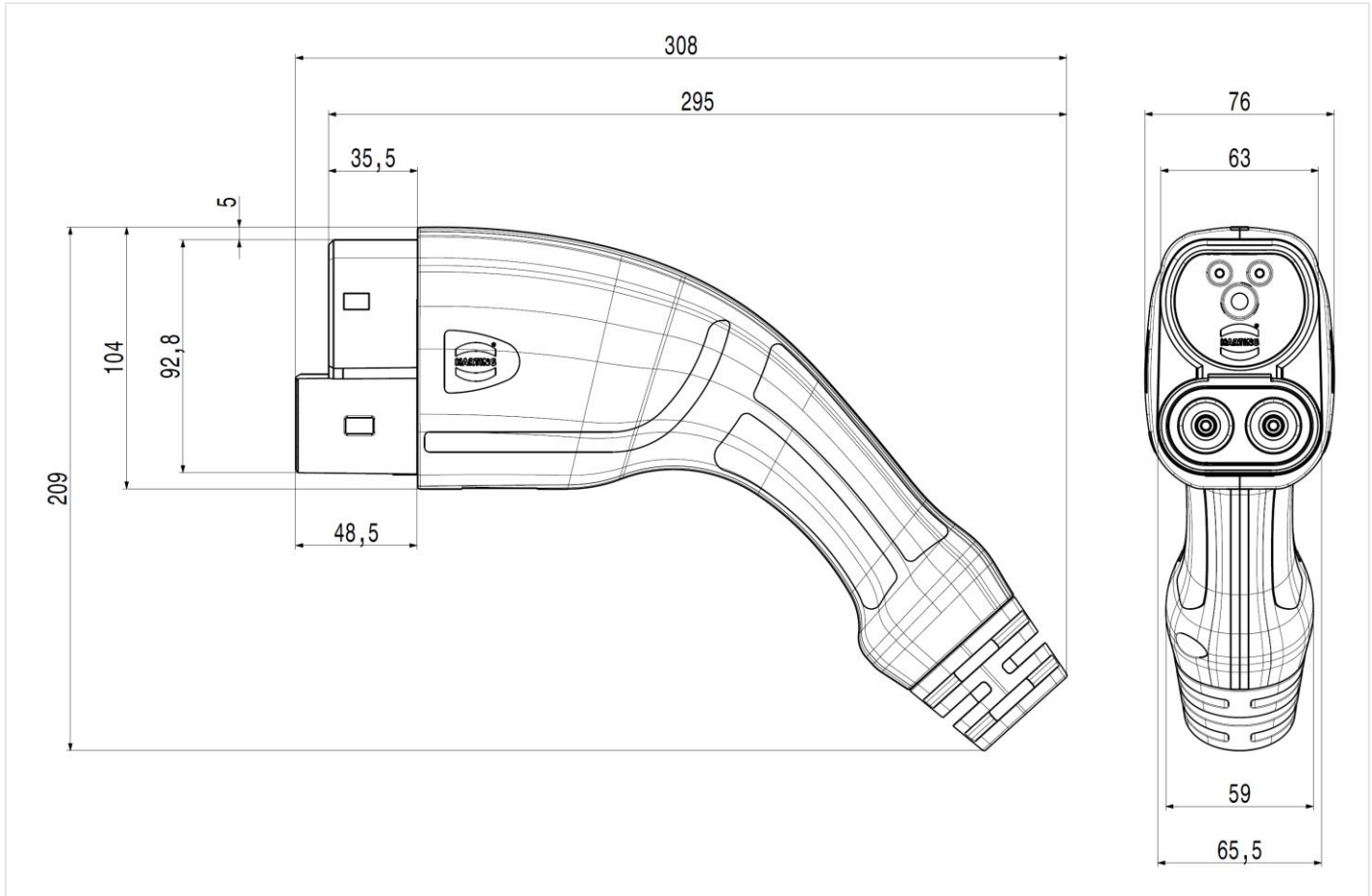
Type of sensor	Pt 1000
Standards / regulations	DIN EN 60751
Recommended measuring current	0,1 - 0,3 mA
Sensor tolerance with recommended measuring current	acc. to DIN EN 60751
Temperature range	-40°C ... 180°C
Temperatur coefficient (TCR)	acc to. DIN EN 60751
Long-term stability (max. R0-Drift)	within temperature range no drift expected (>20 years)
Shutdown temperature	90°C, equivalent to a Pt 1000-value of 1347,07 Ω

## Environmental Product Compliance

REACH SVHC	Lead   CAS 7439-92-1
China RoHS	Environmentally Friendly Use Period: 50 years

## Drawings

### Dimensional drawing



### Pin assignment of the Vehicle connector

