Data Sheet

HUBER+SUHNER

RADOX® High Power Charging System, HPC500 CCS Type-1, CC56, Standard

Description

Continuous High Power Charging at 500 kW
Robust, safe ergonomic design
Easy to handle, thin and light flexible Cable
Short assembly time, maintenance free, easy replaceable
Shutdown in case of overheating
Temperature sensors for overheating protection
Ready for metering system

The RADOX® High Power Charging System allows to use much smaller and lighter cables then a conventional non cooled system. The cooled cable technology can handle high continuous current up to 500 Ampère / 1000V. The ergonomic connector can be easily operated with small or large hands and allows to use the system in a convenient, safe way.

Technical data

Electrical specification

Description	Value
Nominal continuous current	500A
Nominal voltage	1000 V DC
Test voltage cable	7000 V DC
Test voltage system	4200 V DC

Mechanical data

Characteristics	Value [approx.]	Value [approx.]	
Weight of outer cable (including coolant)	1.6 kg/m		
Weight of Connector	0.9 kg		
Number of mating cycles	> 10’000		
Plug mating force	< 100 N		
Bending radius	Fixed: 200 mm	Free movement: 305 mm	

Environmental data

Characteristics	Conditions	Tested acc. to	Values
Temperature range	Operational temperature	IEC 62196	-35°C up to +50°C
Coolant, readily biodegradable Details coolant: C3P-002 datasheet DOC-0000784407		OECD 301 B	> 80 %
Fire resistant		UL 62 / FT2	
RoHS compliant			
IP-Code:			3R / IP67 (housing)

Additional properties

Signal Wires for Metering	Connected to		
0.5mm2 Pink (PK)	DC+		
0.5mm2 Turquoise (TQ)	DC-		
Contacts	**Execution**		
Exchangeable Body Contacts	DC+ / DC-		
Temperature sensors	Position at the hottest point		

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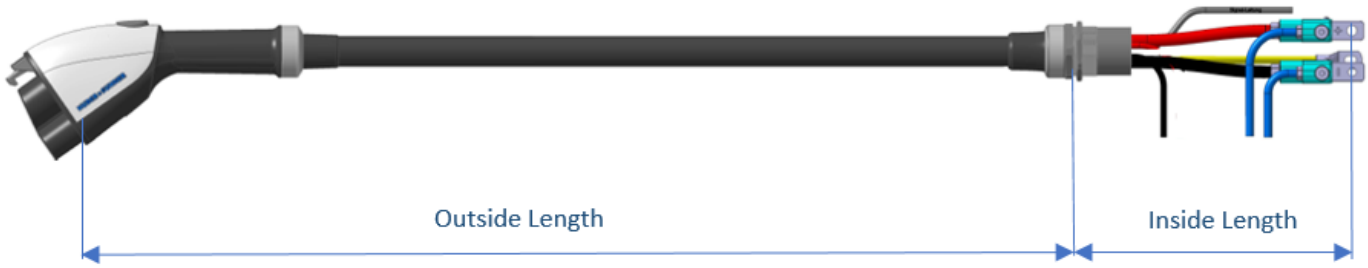
Technical drawing



Ordering information

Description	Weight nom. [kg]	Outside Length [m]	Inside length	nom. [m]	Item number
HPC500 CCS1 3.50/0.55 CC56	8.4	3.5	Power DC+ Power DC- Earth Signal/Metering wires Tubes	0.5 0.55 1.0 1.0 1.0	85136760
HPC500 CCS1 4.50/0.55 CC56	9.9	4.5			85138963
HPC500 CCS1 5.50/0.55 CC56	11.8	5.5			85138964
HPC500 CCS1 6.50/0.55 CC56	13.3	6.5			85138966
HPC500 CCS1 6.50/1.50 CC56	13.6	6.5	Power DC+ Power DC – Earth Signal/Metering wires Tubes	1.5 1.5 1.5 1.5 1.5	85136764
	Tolerance	+/- 0.060	+/- 0.025		

Normative references

UL 2251	UL Standard for Safety Plugs, Receptacles, and Couplers for Electric Vehicles Third Edition, Dated February 22, 2013 Control No.: 50xxxxx
UL 62	UL Standard for Safety for Flexible Cords and Cables, Electric vehicles cables
IEC 62893-1	Charging cables for electric vehicles
IEC 62893-4-2 WD[1)]	Cables for DC charging according to mode 4 of IEC 61851-1
IEC 62196-3	Plugs socket-outlets, vehicle connectors and vehicle inlets
IEC TS 62196-3-1 CD[1)]	DC Charging vehicle coupler and cable assembly with thermal management system
IEC 61851-23	Electric vehicle conductive charging system-DC electric vehicle charging station

1) under consideration of the newest draft

Change notes

Chapter	Description
Description / Technical drawing	New pic of connector
Ordering information	Correct tolerance