



DATASHEET

DC-HPC Technology
CCS2 COMPACT - 850 A









Our **charging cables and connectors** are the result of continuous research and development. By using high-quality materials and state-of-the-art production processes, they meet the highest standards in industry, automation, and E-mobility. Rely on the **quality and reliability** of BRUGG eConnect.

PURWIL HPC CCS2 COMPACT 850 LCC

Flexible and powerful: Our charging systems offer you unparalleled flexibility. With voltages up to 1 000 V and currents up to 850 A* they adapt to a wide range of requirements. Whether it's a fast-charging station on the highway or a charging hub for fleets, our solutions are scalable and future-proof.

Benefits for your charging station:

-  **Fast Charging**
Efficiently charge to maximize flexibility.
-  **Patented Cooling Technology**
Our patented cooled cable construction and connection technology (US Patent 12,183,487 B2) ensures unbeatable performance in market thanks to the direct cooling of the copper and the power contacts in the connector.
-  **Certified Safety at the Highest Level**
Our solutions stand for verified quality and maximum safety: Certification undergoing in compliance with the latest, more stringent standard and with IP69 protection rate. Ideally suited for the most demanding applications.
-  **Complete Customized Solutions**
Our experts work closely with you to develop the ideal solution tailored to your specific requirements.
-  **Easy Maintenance**
Quick replacement of wear parts.
-  **Sustainable**
Coolant with water-glycol base, eliminating environmentally harmful alternatives.

Product Specifications

Description	Rated Current	Diameter	Cable Weight
PURWIL HPC CCS2 COMPACT 850 LCC	850 A*	38.00 +/- 0.4 mm	1.76 kg/m

Technical Data - DC

- Mode 4: CCS2 HPC
- Rated Voltage: 1 000 V DC
- Rated Current: 850 A*
- IEC 62893-4-1:2020
- Based on IEC 62196-3-1:2020
(Certification in progress)
- IP69
- Operating Temperature: -30 °C to +40 °C**

Charging cable properties:



Environmentally friendly

- Biodegradable
- Eco-friendly coolant



Rollover-resistant

- Wear-resistant
- Excellent oil and petrol resistance



Heat / Cold

- Temperature range: -40 °C to +90 °C
(in case of short circuit +160 °C for 5 s)
- Resistant to temperature cycling



Sturdy

- Flame-retardant according to IEC 60332-1
- Resistant to hydrolysis, ozone and weathering
- UV radiation-resistant
- Halogen-free



Flexible

- Min. bending radius 10xD

* At 40 °C. Current carrying capacity depends on the cooling unit, ambient conditions and cable length
 ** Higher ambient temperature possible with power derating (temperature limit of the DC contacts of 90 °C)

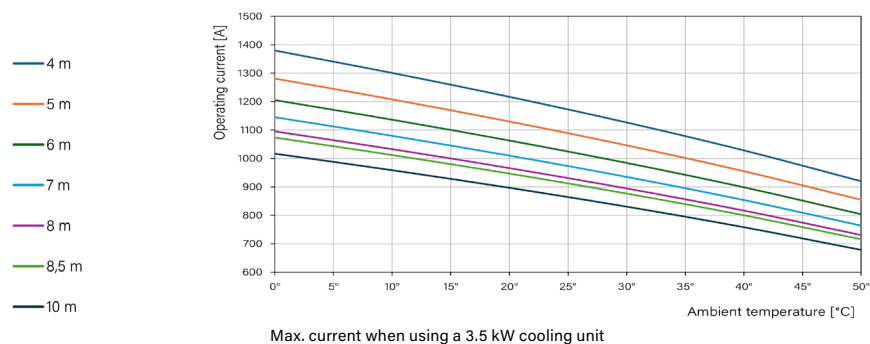
PURWIL HPC CCS2 COMPACT 850 LCC

Our advanced **fast-charging systems** represent a breakthrough in performance. Voltages up to 1000 V and rated currents up to **850 A*** enable unparalleled charging power.

General Properties

Product Type	DC-HPC cooled charging cable with CCS2 connector
Product Family	PURWIL
Application	Electric vehicles (EV) charge with direct current (DC) installation
Installation	Charging stations for E-Mobility
Design	DC-charging cable with vehicle charging plug and open cable end
Equipment	Front face / Contacts replaceable, analogue temperature sensors
Technology	Combined Charging System (CCS)
Logo	BRUGG eConnect
Charging Standard	CCS type 2
Charging Mode	Mode 4
Cooling Type	Passive - In the charging connector and cable

Electrical Properties



Coding	1'500 Ω (between PE and PP)
Signal Contact	CP, PP
Temperature Monitoring	PT 1000 (6x): DC contacts (2x), DC crimp contacts (2x), crimp contacts at charging station (2x)
Max. Charging Power (at 40 °C)	850 kW*
Rated Current (at 40 °C)	850 A*

* Current carrying capacity depends on the cooling unit, ambient conditions and cable length

Power Contacts

Number	3 (PE, DC+, DC-)
Rated Voltage	1 000V (DC)

Signal Contacts

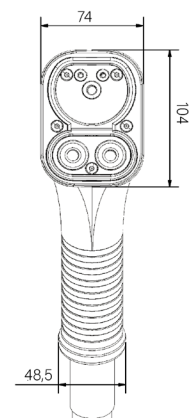
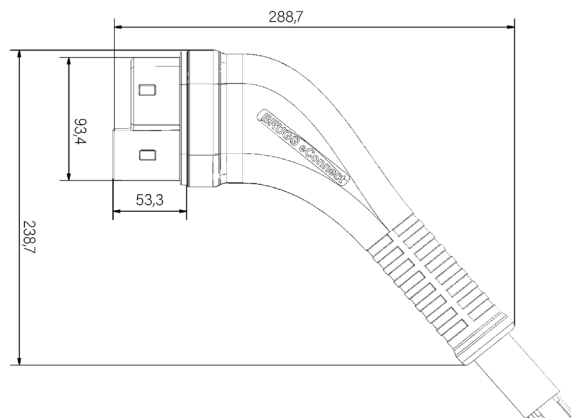
Number	2 (CP, PP)
Rated Voltage	30V (AC)
Rated Current	2A

Temperature Sensors

Sensor Type	PT 1000 (analogue, EN 60751)
Switch-off Temperature	90 °C +/- 1K (PT 1000-value = 1347 Ω)
Ambient Temperature (Operation)	-50 °C to +130 °C

Vehicle Charging Connector

Dimension Drawing
Unit: mm



Width	74 mm
Height	238.7 mm
Depth	288.7 mm

Material Specifications

Cable Colour	Black (RAL 9005)
Cable Outer Sheath	TPU (Polyurethane)
Vehicle Charging Connector	TPU (Polyurethane)
Contacts Surface	Silver

Cable

Length	up to 10 m (on request)
Standard	IEC 62893-4-1:2020
Weight	1.76 kg/m
Type	Class 6
Sort	Straight
Cross-section (mm ²)	2x35 + 1G35 + [12x0.75C]
Diameter	38.00 +/- 0.4 mm
Resistance	≤ 0.554 Ω/km (according to EN60228)
Bending Radius (10xD)	Min. 380 mm

Mechanical Data

Insertion Cycles	> 10 000
Insertion Force	< 100 N
Pulling Force	< 100 N

Ambient Conditions

Protection Class (Vehicle - Charging plug)	IP44 (IP69)
Temperature (Operation)	-30 °C to +40 °C*
Temperature (Storage / Transport)	-40 °C to +80 °C
Altitude	2 000 m a.s.l.

Standards

IEC 62893-4-1:2020	In accordance to
IEC 62196-3-1:2020	Based on (Certification in progress)
Cable Length Restrictions	Length > 10 m (interference-free V2G-communication not guaranteed - ISO IEC 15118-3)

* Higher ambient temperature possible with power derating (temperature limit of the DC contacts of 90 °C)

Satisfied customers are your success: With our products, you ensure high customer satisfaction and increase sales figures. Our comprehensive consulting and service support you in this endeavor.

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