JuCon DC Cabling

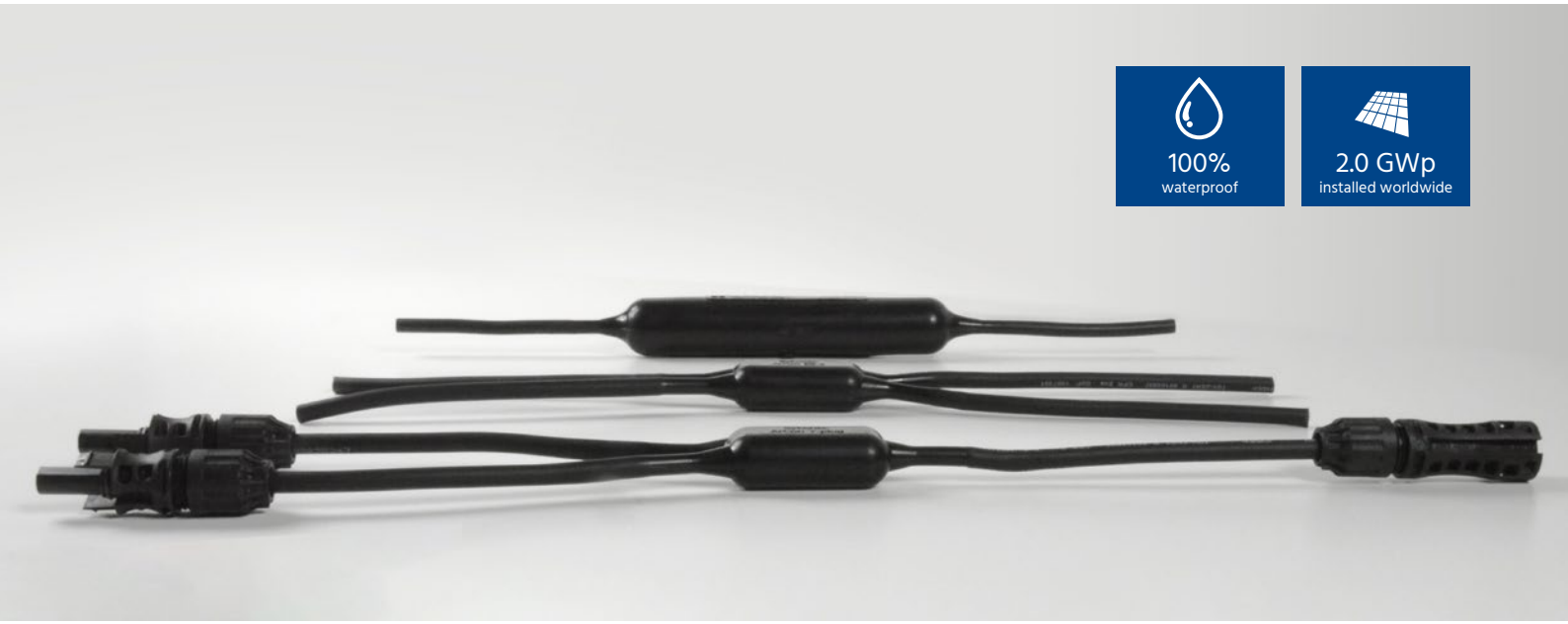
High quality DC cabling harnesses for solar power plants

TÜVRheinland® CERTIFIED

ISO 9001:2015

MADE IN GERMANY

JURCHEN TECHNOLOGY



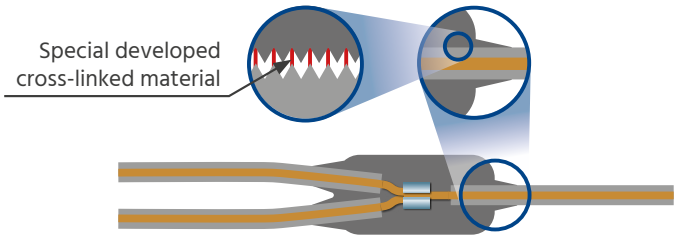
DC cables are the "life veins" of every PV system. In comparison with other PV structure parts, the DC cabling makes only 2% of the total investment costs of a new solar power plant. **The cost savings from buying low quality cable harnesses are lost quickly in case of increased contact resistances or leakage current losses.**

The JuCon® DC cabling system offers **first-class quality** at an attractive price-performance ratio. No other cabling harness system for solar power plants has a comparable degree of impermeability as our JuCon product which is **manufactured in Germany**. The JuCon system is ideally suited for the construction of floating PV power plants. **JuCon is the only cable system worldwide that is fully certified according to the latest TÜV guidelines.**

Key data

- No loss of yield due to minimal contact resistance
- No system failures due to extreme weather resistance
- Low O&M expenditure due to high-quality standard
- 25 year of expected service life
- Proven system since 2012
- Excellently suitable for floating PV power plants
- Easy to integrate, modular system with many accessories
- Comprehensive product range for implementing a 1500 V DC system (module clips, substructures, DC cables)
- Saltwater resistance
- IP65 / IP68 protection degree

Unique vulcanization process



Irreversible chemical bond at molecular level between cable and potting material

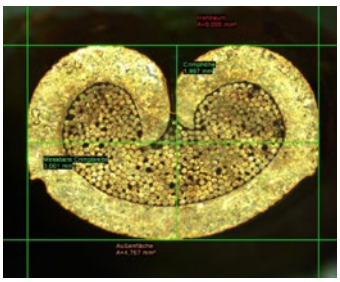
JuCon installation: Limondale, Australia, 349 MWp

JuCon installation: Makor, Israel, Floating Solar

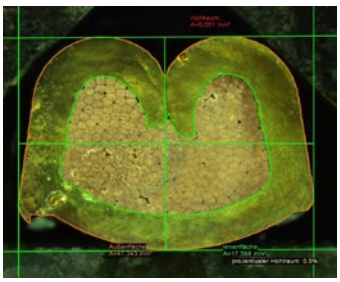
Technical data	
Rated voltage	up to 1.500 V DC
Insulation material	EVA-Compound 120 °C, i.A. an DIN VDE 0282-2, HD22.1
Ambient temperature	- 40 °C to + 90 °C
Max. operating temperature	- 40 °C to + 115 °C
Resistance against	Ozone acc. to 2PfG 1913/03.21
	UV acc. to 2PfG 1913/03.21 / 2PFG 2380
	Moisture heat (steam heat test): 1,000 h at 90 °C and 85% humidity, according to DIN EN 60068-2-78
	Long-term-resistance of insulation to DC acc. to 2PfG 1913/03.21: 240h, 1,5kV DC in water at 85°C
	Ammonia, 30 days in saturated NH_3-atmosphere (internal test)
Flammability (internal tests)	Single cable acc. to DIN EN 60332-1-2
	Multiple cable acc. to DIN EN 50305-9
	Lower smoke emission acc. to DIN EN 50268-2
	Absence of Halogens acc. to EN 50525-1, appendix B
	Lower toxicity acc. to DIN EN 50305
Degree of protection	IP65 / IP68 (1h, 1m)
Spark test	16 kV AC
Dielectric strength acc. to 2 PfG 1913/04.11	Voltage test 1 h in water, 6,5 kV AC (5 minutes)
Contact restistance (measured acc. to TÜV 2 PfG 1913/04.11: directly at the output of the cables of the moulding of connection splice)	≤ 0,5 mΩ
Tensile test	acc. to TÜV 2 PfG 1913/03.21 / 2PFG 2380

Cable quality matters

The quality assurance of our JuCon cables includes several critical test procedures. An insufficient force applied during crimping or the use of an incorrect crimping tool can lead to faulty contact and resistance between the cable and the sleeve which will increase over time due to corrosion on the individual strands. Furthermore, this might lead to the cable being pulled out of the crimp sleeve.
The quality of the crimp connection involves inspection using a microscope to identify faults. In the right image below, it is easy to see there are very few gaps between the individual strands.
The additional costs of high-quality cables is quickly offset by avoiding the costs of cable failures during the system operation time. Please read our white paper "DC Cable Quality Matters" for more information.



a) Low quality: Many gaps between the individual strands.



b) Jurchen JuCon Quality: Very few gaps between the individual strands.

Inhouse Testing / Quality Management
1. Passage test
2. Spark test
3. Pull test
4. Contact resistance test
5. High voltage test
6. Final test

TÜV Testing
1. Protection against electric shock
2. Temperature rise
3. Bending
4. Dielectric strength
5. Mechanical strength at lower temperatures
6. Damp heat test
7. Long term resistance of insulation to D.C.
8. Tension force stability
9. Strain relief
10. Resistance against heat

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