## **String fuse JuCon SF**

High-performance protection



Jurchen Technology GmbH Prinz-Ludwig-Straße 5 97264 Helmstadt Germany



## **Key data**

- Overcurrent protection
- Protects strings from reverse current overload caused by earth faults, short circuits or incorrect installation
- Premium quality directly from the manufacturer
- Tailor-made solutions
- Assembly according to customer's specifications
- Released by Jurchen Technology in combination with all components listed on the data sheet

Electrical data	
Fuse characteristic	gPV (PV-Fuse)
Rated current	Up to 30 A (depending on the fuse being used)
Rated voltage	Up to 1500 V <sub>DC</sub> (depending on the fuse being used)
Contact resistance at termination <sup>1</sup>	$\leq$ 10 m $\Omega$
Insulation resistance	$> 10^9 \Omega$
PV-Fuse manufacturer	Siba, Jean Müller, COOPER Bussmann, Adler
	Other manufacturer on request
Tests	Spark test in accordance with EN 50395 section 10 with 15kV $_{\rm AC}$
	High voltage test in water in accordance with TÜV 2 PfG 1913/04.11 section 7.3.8 b) with 6,5 kV <sub>AC</sub>
	Contact resistance at termination acc. to test 2b of EN 60512
	Insulation resistance in accordance with EN 50395 section 8.1
	Long term resistance of insulation to d.c. according to TÜV 2 PfG 1913/04.11 section 7.3.13 240 h at 1.5 kV in salt water at 85 °C
Thermal data	
Ambient temperature range	From -40 °C to +90 °C (from -40 °F to +194 °F)
Thermal cycle test	According to IEC 60068-2-14 test Nb
Damp heat test	According to IEC 60068-2-78 1000 h at 90 °C and 85 % relative humidity
Resistance to cold	Cold impact test acc. to TÜV 2 PfG 1913/04.11 section 7.3.9
Mechanical data	
Degree of protection (IP-Code)	IP68 (10 days, 1 m) in accordance with IEC 60529
Termination and connection method	Crimping Visual and tensile strength test according to IEC 60352-2
Chemical data	
Moulding material	EVA compound 120 °C based on DIN EN 50363-2-1 Moulding material and cable sheath are crosslinked
Weather resistance	Ozone resistance according to DIN EN 50396 test type B
	UV-resistance according to ISO 4892-2 (Method A)

<sup>&</sup>lt;sup>1</sup> Measured directly at the output of the cables of the fuse moulding



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Behaviour in case of fire	Flame class V0 acc. to UL94
	Single cable burning test acc. to IEC 60332-1-2
	Multiple cable burning test acc. to DIN EN 50305-9
	Low smoke emission acc. to DIN VDE 0482 part 268-2, IEC 61034
	Halogen free acc. to DIN EN 50264-1
	Low toxicity acc. to DIN EN 50305
Solar cable	
Manufacturer	Prysmian Kabel und Systeme GmbH
Trademark	TECSUN (PV)
Type designation	PV1-F
Approvals	Requirements for cables for PV systems, DKE/VDE AK 411.2.3 - VDE-Reg.No. 7985 TÜV 2 PfG 1169/08.2007 - CertNo. R 60013989
Conductor	Electrolytic copper, tinned, Class 5 according to IEC 60228 (DIN VDE 0295)
Cross section	2,5 mm <sup>2</sup> , 4 mm <sup>2</sup> and 6 mm <sup>2</sup>
Tensile strength	15 N/mm <sup>2</sup> during operation, 50 N/mm <sup>2</sup> during installation
Bending radius	Min. 3 x D (D = outer diameter maximum value) D = 5,1 mm for 2,5 mm <sup>2</sup> wire cross section D = 5,6 mm for 4 mm <sup>2</sup> wire cross section D = 6,1 mm for 6 mm <sup>2</sup> wire cross section
Sheath colours	Black (red and blue on request)
Both-sided connectivity	
PV-Connectors	Multi Contact - MC3 TÜV certified acc. to standard EN 50521:2008 / R 60026534
	Multi Contact - MC4 TÜV certified acc. to standard EN 50521:2008 / R 60028286
	Amphenol - Helios H4 TÜV certified acc. to standard EN 50521:2008 / R 50157783
IPC-Connectivity	8x60 mm
Open end	
Other connectivity on request	



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