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1027900	DATA SHEET	LAPP
valid from: 06.11.2024	ÖLFLEX® CHAIN 819 CP	

Application

ÖLFLEX® CHAIN 819 CP cables are high flexible control cables for power chains for the European, Northern American and Canadian market, for flexible use and fixed installation under light to medium mechanical load conditions.
ÖLFLEX® CHAIN 819 CP cables are increased resistant to oils and at room temperature largely resistant to acids and alkalis.
They are especially suitable for basic requirements (Basic Line) in power chains and in permanently moved machine parts.
They are suitable for linear, automated movements. The maximum tensile load is 15 N/mm² of conductor cross-section during installation and operation. Compulsory guidance is not permitted.
The screening braid protects against interference from electrical fields.

Application range: power chains or moving machine parts, measuring, control and regulation circuits, wiring of machines, tools, devices, appliances and control cabinets.
This cable is suitable for torsion application in wind turbines (WTG). The torsional load is limited to applications, as they typically occur in the loop of a wind turbine.

USE gemäß : Internal wiring.
USE gemäß : Cables for internal or external interconnection with or without mechanical abuse.

Design

Design	acc. to UL AWM Style 21576, CSA C22.2 No. 210-15 based on EN 50525-2-21 and EN 50525-2-51
Certification	AWM Style 21576 (File No. E63634) AWM I A/B, II A/B (File No. E63634)
Conductor	fine wire strands of bare copper, acc. to EN IEC 60228 resp. EN 60228, class 5
Insulation	PVC compound (UL/CSA 80 °C rating)
Core identification code	acc. to VDE 0293-1, with or without GN/YE ground conductor black cores with white numbers acc. to EN 50334
Cable assembly	cores stranded in layers with short lay length
Wrapping	soft fleece tape (optional)
Screen	laminated fleece tape on top: braid of tinned copper wires, coverage = 85 % (nominal value)
Outer sheath	LAPP TPU-Special Blend Colour: black, similar RAL 9005

Electrical properties at 20 °C

Specific volume resistivity	> 20 GΩ x cm
Transfer impedance	max. 250 mΩ/m (at 30 MHz)
Nominal voltage	EN U_0/U: 300/500 V
Rated voltage	UL/CSA: 1000 V
Test voltage	core / core: 4000 V AC core / screen: 3000 V AC

Mechanical and thermal properties

Minimum bending radius	flexing: up from 10 x outer diameter fixed installation: 4 x outer diameter
Temperature range	flexing: EN: -5°C up to +70°C max. conductor temperature UL: -5°C up to +80°C max. conductor temperature fixed installation: EN: -40°C up to +80°C max. conductor temperature UL: up to +80°C max. conductor temperature
Bending cycles and power chain operation parameters	See Selection Table A2-1 in the appendix of our online catalogue For use in power chains: Please comply with assembly guideline Appendix T3
Torsional stress	TW-0 (5000 cycles at ≥ +5°C) TW-1 (2000 cycles at ≥ -20°C) ± 150 °/m at 1 revolution per minute

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Flammability	flame retardant acc. to IEC 60332-1-2 resp. EN 60332-1-2 UL: horizontal flame CSA: FT2
UV resistance	acc. to EN 50620 EN ISO 4892-2-2013, method A (change of colour allowed)
Oil resistance	acc. to EN 50363-4-1, TM5
Tests	acc. to IEC 60811 EN 60811, EN 50395, EN 50396, UL 1581 and CSA C22.2
General requirements	These cables are conform to the EU-Directive 2014/35/EU (Low Voltage Directive)
Environmental information	These cables meet the substance-specific requirements of the EU Directive 2011/65/EU (RoHS).

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