

1026751	DATA SHEET	
valid from: 24.05.2024	ÖLFLEX® CHAIN 809 CY	

Application

ÖLFLEX® CHAIN 809 CY cables are high-flexible PVC power and control cables designed for the European, North American and Canadian market, for flexible use and fixed installation under light or medium mechanical load conditions.

They are among others designed for use in dry, damp or wet areas.

If using outdoors, observe the indicated temperature range and use with UV protection. They are largely resistant to acids, alkalis and certain oils at room temperature.

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 acc. to : External interconnection or internal wiring of electronic equipment.

USE acc. to : Cables for internal or external interconnection with or without mechanical abuse.

Design

Design	acc. to UL 758 AWM Style 20886, CSA C22.2 No. 210 based on EN 50525-2-51
Certification	 AWM Style 20886 (File No. E63634) AWM I/II A/B (File No. E63634) EN 13501-6 and EN 50575 Classification of fire behaviour (article/dimension range see www.lappkabel.com/cpr)
Conductor	fine wire strands of bare copper, acc. to 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
Wrapping	non-woven wrapping
Screen	braid of tinned copper wires, coverage = 85 % (nominal value)
Outer sheath	PVC compound (UL/CSA 80 °C rating) colour: grey, similar RAL 7001

Electrical properties at 20 °C

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): 0 °C up to +70 °C max. conductor temperature flexing (UL/CSA): 0 °C up to +80 °C max. conductor temperature fixed installation (EN): -40 °C up to +80 °C max. conductor temperature fixed installation (UL/CSA): 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	Torsion movement in wind turbine generators 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 Cable Flame Test acc. to UL 1581 §1061 UL VW-1 acc. to UL 1581 § 1080 CSA FT1 acc. to CSA C22.2 No. 2556, § 9.3
Oil resistance	TM54 acc. to EN 50290-2-22
Tests	acc. to IEC 60811 resp. EN 60811, EN 50395, EN 50396 UL 1581 und CSA C22.2 No. 210
General requirements	These cables are conform to the EU-Directive 2014/35/EU (Low Voltage Directive) A part of these cables (see www.lappkabel.com/cpr) are classified acc. to the EU-Regulation no. 305/2011 (CPR)
Environmental information	These cables meet the substance-specific requirements of the EU Directive 2011/65/EU (RoHS).

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