

1062900	DATA SHEET	
Valid from: 22.08.2018	ÖLFLEX® CHAIN 809 SC	

Application

ÖLFLEX® CHAIN 809 SC are high-flexible PVC single-core 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 also suitable for use in dry, damp or wet areas. They are suitable for outdoor use if the indicated temperature range is observed. 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.

Application range:

Power chains or moving machine parts, for wiring of electric and electronic equipment in switch cabinets, specially designed power circuits of servo motors driven by frequency converters, test systems in the automotive industry, vehicles and stationary fuel cell systems

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 according to UL: PVC sheathed cables for external interconnection or internal wiring of electronic equipment.

USE according to cRU: Cables for internal or external interconnection with or without mechanical use.

Design

Design	acc. to UL AWM Style 10107, CSA C22.2 No. 210-15 and based on EN 50525-1 resp. VDE 0285-525-1
Approvals	UL AWM Style 10107 (File No. E63634) cRU AWM I A/B, II A/B (File No. E63634)
Conductor	fine wire strands of bare copper acc. to IEC 60228 resp. VDE 0295, Class 5
Core insulation	PVC compound (UL/CSA 90° C rating)
Core identification	Black or GN/YE
Outer sheath	PVC compound (UL/CSA 90° C rating) colour: Black, similar RAL 9005

Electrical properties

Nominal voltage	IEC U ₀ / U:	600/1000 V
	UL/ CSA:	600 V
Test voltage		4000 V AC

Mechanical and thermal properties

Min. bending radius	flexing:	up from 10 x cable diameter
	fixed installation:	4 x cable diameter
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	
Torsion movement in WTG	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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PD 0019/05_04.18EN

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Temperature range	flexing (VDE): 0 °C up to +70 °C max. conductor temp. flexing (UL/CSA): 0 °C up to +90 °C max. conductor temp. fixed installation (VDE): -40 °C up to +70 °C max. conductor temp. fixed installation(UL/CSA): up to +90 °C max. conductor temp.
Flammability	flame retardant in acc. to IEC 60332-1-2 resp. VDE 0482-332-1-2 UL: Vertical flame test VW-1, FT2 CSA: FT1
Oil resistance	TM54 acc. to DIN EN 50290-2-22 resp. VDE 0482-332-1-2
UV-resistance	acc. to EN 50525-1 (VDE 0285-525-1) cables with black sheath are suitable for permanent outdoor use. UV-resistant acc. to EN ISO 4892-2-2013, method A (change of colour allowed)
Oil resistance	TM54 acc. to DIN EN 50290-2-22 resp. VDE 0482-332-1-2
Tests	acc. to IEC 60811 resp. VDE 0473 part 811, EN 50395, EN 50396 UL 1581 und CSA C22.2
EU Directives	These cables are conform to the EU-Directives 2014/35/EU (Low Voltage Directive)

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