


1062900	DATA SHEET	
valid from: 16.01.2020	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
Certification	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
Insulation	PVC compound (UL/CSA 90° C rating)
Core identification code	black or GN/YE
Outer sheath	PVC compound (UL/CSA 90° C rating) colour: Black, similar RAL 9005

Electrical properties at 20°C

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

Mechanical and thermal properties

Minimum bending radius	flexing: 10 x cable diameter fixed installation: 4 x cable diameter
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 +80 °C max. conductor temp. Fixed installation(UL/CSA): up to +90 °C max. conductor temp.
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
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
UV resistance	acc. to EN 50525-1 (VDE 0285-525-1) cable with black sheath are suitable for permanent outdoor use. acc. to EN 50618 resp. VDE 0283-618 acc. to EN 50620 resp. VDE 0285-620 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 0819-102
Tests	acc. to IEC 60811 resp. VDE 0473 part 811, EN 50395, EN 50396 UL 1581 und CSA C22.2
General requirements	These cables are conform to the EU-Directives 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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