


1026751	DATA SHEET	
valid from: 06.02.2020	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. 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 UL: PVC sheathed cable for external interconnection or internal wiring of electronic equipment.

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

Design

Design	acc. to UL AWM Style 20886, CSA C22.2 No. 210-15 and based on EN 50525-2-5 1 resp. VDE 0285-525-2-5 1
Certification	UL AWM Style 20886 (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 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 DIN EN 50334 resp. VDE 0293-334
Taping	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

Nominal voltage	IEC: U ₀ / U:	300/500 V
	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 to 3m travel distance (horizontal, self supporting):	up from 10 x cable diameter
	flexing up to 10m travel distance (horizontal, sliding):	up from 12 x cable diameter
	fixed installation:	4 x cable diameter
	Temperature range	flexing (VDE):
	flexing (UL/CSA):	0 °C up to +80 °C max. conductor temp.
	fixed installation (VDE):	-40 °C up to +80 °C max. conductor temp.
	fixed installation(UL/CSA):	up to +80 °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 acc. to IEC 60332-1-2 resp. VDE 0482-332-1-2 UL: Vertical flame test VW-1; CSA: FT1	
Oil resistance	TM54 acc. to DIN EN 50290-2-22	

Creator: HESC / PDC	Document: DB1026751EN	Page 1 of 2
Released: ALTE / PDC	Version: 08	

1026751	DATA SHEET	
valid from: 06.02.2020	ÖLFLEX® CHAIN 809 CY	

Tests

acc. to IEC 60811 resp. VDE 0473 part 811, EN 50395, EN 50396, UL 1581 and CSA C22.2

General requirements

These cables 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).

Creator: HESC / PDC	Document: DB1026751EN	Page 2 of 2
Released: ALTE / PDC	Version: 08	