ÖLFLEX® CHAIN 809 CY

DB 1026751
valid from: 2014-02-21

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 rooms. Outdoor use: They may only be installed with UV protection and considering the indicated temperature range. At room temperature they are widely resistant to acids, caustic solutions and certain oils. They are especially suitable for basic requirements (Basic Line) in power chains and in permanently moved machine parts. Usage of these cables in moving cable carriers or on motor drum guidance or under a tensile strain of more than 15 N/mm^2 conductor cross-section is not allowed. The screen is a protection against electrical interference.
Application range:
Power chains or moving machine parts, measuring, control and regulation circuits, wiring of machines, tools, devices, appliances and control cabinets.
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.
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.

Design

Design	acc. to UL AWM Style 20886, CSA C22.2 No. 210-05 and based on HD 21.13 S1 +A1 resp. VDE 0281-13
Approval	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
Core insulation	PVC compound (UL/CSA 80° C rating)
Core identification	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 part 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

Nominal voltage	U_0/U:	300/500 V
	UL/CSA:	1000 V
Test voltage	Core/Core:	4000 V AC
	Core/Screen:	2000 V AC

Mechanical and thermal properties

Min. bending radius	fixed installation:	4 x cable diameter
	flexing up to 3m travel distance (horizontal, self supporting):	10 x cable diameter
	flexing up to 10m travel distance (horizontal, sliding):	12 x cable diameter
Number of bending/ unbending cycles	2 mio. cycles	
Travel distance	10 m	

ÖLFLEX® CHAIN 809 CY

DB 1026751
valid from: 2014-02-21

Temperature range	fixed installation (VDE):	-40 °C up to +70 °C max. conductor temp.
	fixed installation(UL/CSA):	-40 °C up to +80 °C max. conductor temp.
	flexing (VDE):	0 °C up to +70 °C max. conductor temp.
	flexing (UL/CSA):	0 °C up to +80 °C max. conductor temp.
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	
Flammability	flame retardant in 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	
Tests	acc. to IEC 60811 resp. VDE 0473 part 811, EN 50395, EN 50396 UL 1581 und CSA C22.2	
EC directive	This cable is conform to the EC-Directives 2006/95/EC (Low Voltage Directive) and 2002/95/EC (RoHS, Restriction of the use of certain hazardous substances).	