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|-----------------------------------|-------------------------|-------------------------------------------------------------------------------------|
| <b>0026651</b>                    | <b>DATA SHEET</b>       |  |
| <b>valid from:<br/>07.08.2025</b> | <b>ÖLFLEX® FD 90 CY</b> |                                                                                     |

## Application

ÖLFLEX® FD 90 CY cables are DESINA compliant screened high-flexible, sheathed cables for the European, North American and Canadian market.

They are designed for flexible use as well as for fixed installation subject to medium mechanical load conditions.

They are also suitable for use in dry, damp or wet areas. If using outdoors, observe the indicated temperature range and use with UV protection.

ÖLFLEX® FD 90 CY cables are increased oil resistant and at room temperature largely resistant to acids and alkalis.

They are suitable for linear, automated movements. The maximum tensile load is 15 N/mm<sup>2</sup> of conductor cross-section during installation and operation. Compulsory guidance is not permitted.

The screening braid protects against interference from electrical fields.

Application range: In power chains or moving machine parts, for internal wiring of electric and electronic equipment in switch cabinets, this cable can substitute screened multi-core motor cables where space requirements or minimum bending radius cause problems, specially designed for power circuits of servomotors driven by frequency converters, test systems in the automotive industry, vehicles and stationary fuel cell systems

USE acc. to : Internal wiring or external interconnection of electronic equipment.

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

## Design

|                          |                                                                                                                                                                                                                                                                                                                                                                      |
|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Design                   | acc. to UL AWM Style 10107, UL 758<br>acc. to CSA C22.2 No. 210-15<br>based on VDE 0250                                                                                                                                                                                                                                                                              |
| Certification            |  AWM Style 10107, UL 758 (File No. E63634)<br>CSA: < 120 mm <sup>2</sup> : AWM I A/B, II A/B, C22.2 No. 210-15<br> > 150 mm <sup>2</sup> : AWM I A/B, II A/B, C22.2 No. 210-15 (File No. E63634) |
| Conductor                | extra fine wire strands of bare copper, acc. to IEC 60228 resp. EN IEC 60228, class 6<br>conductor wrapped with a fleece tape                                                                                                                                                                                                                                        |
| Insulation               | PVC compound acc. to UL/CSA 90°C rating                                                                                                                                                                                                                                                                                                                              |
| Core identification code | BK or GN/YE                                                                                                                                                                                                                                                                                                                                                          |
| Wrapping                 | wrapped with a fleece tape                                                                                                                                                                                                                                                                                                                                           |
| Screen                   | braid of tinned copper wires, coverage = 85 % (nominal value)                                                                                                                                                                                                                                                                                                        |
| Outer sheath             | PVC compound acc. to UL/CSA 90°C rating, increased oil resistance<br>colour: orange, similar RAL 2003                                                                                                                                                                                                                                                                |

## Electrical properties at 20 °C

|                             |                                  |
|-----------------------------|----------------------------------|
| Specific volume resistivity | > 20 G Ω x cm                    |
| Nominal voltage             | EN U <sub>0</sub> /U: 600/1000 V |
| Rated voltage               | UL/CSA: 600 V                    |
| Test voltage                | 4000 V AC                        |

## Mechanical and thermal properties

|                                                     |                                                                                                                                                                                                                                                           |
|-----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Minimum bending radius                              | flexing: up from 7.5 x outer diameter<br>fixed installation: 3 x outer diameter                                                                                                                                                                           |
| Temperature range                                   | flexing (EN): -5 °C up to +70 °C max. conductor temp.<br>Flexing (UL/CSA): -5 °C up to +90 °C max. conductor temp.<br>Fixed installation(EN): -40 °C up to +80 °C max. conductor temp.<br>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<br>For use in power chains: Please comply with assembly guideline Appendix T3                                                                                                            |
| Flammability                                        | flame retardant acc. to IEC 60332-1-2 resp. EN 60332-1-2<br>UL: Vertical flame test VW-1 acc. to UL 1581, section 1080,<br>FT2 acc. to UL 1581, section 1100<br>CSA: FT1 acc. to CSA C22.2 No. 2556 § 9.3                                                 |
| Oil resistance                                      | EN: acc. to EN 50363-4-1, TM5<br>UL: 80 °C rating acc. to UL 758<br>CSA: acc. to CSA C22.2 No. 210-15                                                                                                                                                     |

AbN  
automation

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**Tests**

acc. to IEC 60811 resp. EN 60811, EN 50395, EN 50396  
UL 1581 and CSA C22.2 No 2556

**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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