00100004	DATA SHEET	LAPP
valid from: 24.02.2022	ÖLFLEX® CLASSIC 100 300/500V	

Application

ÖLFLEX® CLASSIC 100 300/500V cables are colour coded control cables for occasional flexible use and fixed installation for medium mechanical use. They are suitable for use in dry, damp and wet areas and are space-saving due to smaller cable diameters. 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.
ÖLFLEX® CLASSIC 100 300/500V cables are suitable for occasional, non-automated movements. They meet the requirements for slow rotational movements, such as in the loop of a wind turbine. The maximum tensile load is 15 N/mm² of conductor cross-section during installation and operation. Compulsory guidance is not permitted.

Application range: ÖLFLEX® CLASSIC 100 300/500V cables are used as control cable in industrial machinery, plant engineering, in power stations, in heating and air-conditioning systems, etc.
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	based on EN 50525-2-11 EN 50525-2-51 and IEC 60227-5
Conductor	bare copper, fine wire strand in acc. with IEC 60228 resp. EN 60228, class 5
Insulation	PVC compound TI2 acc. to EN 50363-3 with increased requirements acc. to Lapp specification
Core identification code	acc. to. VDE 0293-1, with or without GN/YE protective conductor with up to 5 cores: acc. to VDE 0293-308 / HD 308 S2 more than 6 cores: acc. to LAPP-ÖLFLEX® color code
Stranding	cores are stranded in layers
Outer sheath	PVC compound TM2 acc. to EN 50363-4-1 with increased requirements acc. to LAPP specification colour: silver grey, similar RAL 7001

Electrical properties at 20 °C

Specific volume resistivity	> 20 G Ω x cm
Nominal voltage	U_0/ U: 300 / 500 V
Test voltage	core/core: 4000 V AC

Mechanical and thermal properties

Minimum bending radius	occasional flexing: 15 x outer diameter fixed installation: 4 x outer diameter
Temperature range	occasional flexing: - 5 °C up to +70 °C max. conductor temperature fixed installation: - 40 °C up to +80 °C max. conductor temperature
Torsional stress	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 acc. to IEC 60332-1-2 resp. EN 60332-1-2
Tests	acc. to IEC 60811 resp. EN 60811, EN 50395, EN 50396
General requirements	These cables are 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).

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