

0010086	<b>DATA SHEET</b>	
	<b>ÖLFLEX® CLASSIC 100 450/750V</b>	

## Application

ÖLFLEX® CLASSIC 100 450/750V cables are connecting- and control cables for occasional flexible use and fixed installation for medium mechanical use. 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. They are largely resistant to acids, alkalis and certain oils at room temperature.

ÖLFLEX® CLASSIC 100 450/750V 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/mm<sup>2</sup> of conductor cross-section during installation and operation. Compulsory guidance is not permitted.

Application range: ÖLFLEX® CLASSIC 100 450/750V cables are used as supply and flexible connecting cable in machine tool manufacture, plant engineering, in power stations, in heating and air conditioning installations, 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 50525-2-31 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 <sub>0</sub> / U : 450 / 750 V fixed and protected installation: 600 / 1000 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 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).