#### 1119752

## **DATA SHEET**



# ÖLFLEX CLASSIC®110

## **Application**

ÖLFLEX® CLASSIC 110 cables are VDE approved power and control cables for occasional flexible use and fixed installation for 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. They are largely resistant to acids, alkalis and certain oils at room temperature.

ÖLFLEX® CLASSIC 110 cables are limited suitable for free and continuously recurring movements. The maximum tensile load is 15 N/mm² of conductor cross-section during installation and operation. Compulsory guidance is not permitted.

#### Application range:

As power- and connecting cable for control systems in machine tools, plant engineering and construction, industrial machinery, conveyor systems, production and assembly lines as well as in measuring and control technology and data processing systems. This cable is suitable for torsion application in wind turbines. The torsional load is limited to applications, which are typical for the loop in wind turbine generators (WTG).

### Design

Design based on

EN 50525-2-51

limited to following dimension range:  $0.5 \text{ mm}^2$  -  $2.5 \text{ mm}^2$  - 2-65 cores 4 mm² -  $16 \text{ mm}^2$  - 2-7 cores 25 mm² -  $120 \text{ mm}^2$  - 2-5 cores EN 13501-6 and EN 50575 Classification of fire behaviour

(article/dimension range see www.lappkabel.com/cpr)

Conductor fine wire strands of bare copper, acc. to IEC 60228 resp. EN 60228, Class 5

Insulation LAPP special PVC compound P8/1

TI2 acc. to EN 50363-3 rwith increased requirements acc. to LAPP specification

Core identification code acc. to VDE 0293-1, with or without GN/YE ground conductor

black cores with white numbers acc. to EN 50334

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

Nominal voltage  $U_0 / U: 300 / 500 V$ Test voltage core / core: 4000 V AC

### Mechanical and thermal properties

Minimum bending radius occasional flexing: 10 x outer diameter

fixed installation: 4 x outer diameter

Temperature range occasional flexing: - 15 °C up to +70 °C max. conductor temp.

Power chain

Fixed installation: -40°C up to +80°C max. conductor temp.

Bending cycles and power chain

operation parameters

limited to 2-7 cores and 0.5 – 2.5 mm<sup>2</sup> Min. bending radius: 15 x outer diameter

temperature range: -5 °C up to +70 °C max. conductor temp. Travelling distance up to 5 m: 0.2 ... 1 million bending cycles

Torsional stress in WTG:

TW-0 (5000 cycles at  $\geq$  +5 °C) TW-1 (2000 cycles at  $\geq$  -20 °C)  $\pm$  150 °/m at 1 revolution per minute

Flammability flame retardant acc. to IEC 60332-1-2 resp. EN 60332-1-2

Oil resistance acc. to EN 50290-2-22 TM54

**Tests** acc. to IEC 60811 resp. EN 60811, EN 50395, EN 50396

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# <sub>va</sub> ÖLFLEX CLASSIC®110

**General requirements**These cables are conform to the EU-Directive 2014/35/EU (Low Voltage Directive).

A part of these cables (see www.lappkabel.com/cpr) are classified in accordance with the EU-Regulation no. 305/2011 (CPR).

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**Environmental information** These cables meet the substance-specific requirements of the EU Directive 2011/65/EU (RoHS).