10036001	DATA SHEET	LAPP
valid from: 24.06.2021	ÖLFLEX® CLASSIC 115 CH	

Application

ÖLFLEX® CLASSIC 115 CH are screened, halogen free, oil resistant, highly flame retardant power and control cables designed for the European and North American market, for occasional flexible use and fixed installation subject to normal mechanical load conditions. They are also suitable for use in dry or damp areas. They are suitable for outdoor use if the indicated temperature range is observed. They 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. The screen is a protection against electrical interference.

Application range:
Public buildings, airports, railway stations, plant engineering and construction, air conditioning systems and particularly where human and animal life as well as valuable property are exposed to high risk of fire hazards. In the event of a fire minimal toxic and no corrosive gases occur. 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.

USE according to UL: FRPE sheathed cable for internal wiring of appliances and external interconnection of electronic equipment.

Design

Design	acc. to UL AWM Style 21089, UL 758 and based on EN 50525-3-11 EN 50525-2-51
Certification	UL AWM Style 21089 (File No. 63634), UL 758 EN 13501-6 und EN 50575 Klassifizierung des Brandverhaltens (Artikel/Abmessungsspektrum s. www.lappkabel.de/cpr)
Conductor	fine wire strands of bare copper, acc. to IEC 60228 resp. EN 60228, class 5
Insulation	halogen free compound TI6, polyolefin based, acc. to EN 50363-7, with 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
Taping	plastic foil
Screen	braid of tinned copper, coverage = 85% (nominal value)
Outer sheath	halogen free compound HM2, polyolefin based, acc. to VDE 0250-214, with increased requirements Colour: silver grey, similar RAL 7001

Electrical properties at 20 °C

Specific volume resistivity	> 20 G Ω x cm	
Transfer impedance	max. 250 mΩ/m (at 30 MHz)	
Nominal voltage	EN U_0 / U:	300 / 500 V
	UL:	600 V
Test voltage	core / core:	4000 V AC
	core / screen:	2000 V AC

Mechanical and thermal properties

Minimum bending radius	occasional flexing:	15 x outer diameter
	fixed installation:	6 x outer diameter
Temperature range	occasional flexing (EN):	-30 °C up to +70 °C max. conductor temperature
	occasional flexing (UL):	up to +75 °C max. conductor temperature
	fixed installation (EN):	-40 °C up to +80 °C max. conductor temperature
	fixed installation (UL):	up to +75 °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 UL: Cable flame test no flame-propagation acc. to IEC 60332-3-24 resp. EN 60332-3-24 or acc. to IEC 60332-3-25 resp. EN 60332-3-25
Halogen free	acc. to IEC 60754-1 resp. EN 60754-1
Corrosivity of gases	acc. to IEC 60754-2 resp. EN 60754-2
Smoke density	acc. to IEC 61034-2 resp. EN 61034-2
Toxicity	acc. to NES 713-3, EN 50306-1 (≤ 3)
UV resistance	acc. to EN 50620 acc. to EN ISO 4892-2-2013, method A (change of colour allowed)
Ozone resistance	acc. to EN 50396, method B
Oil resistance	acc. to EN 50363-4-1 (TM5) UL OIL RES I und OIL RES II
Tests	acc. to IEC 60811 resp. EN 60811, EN 50395, EN 50396, UL 1581
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 acc. to the EU-Regulation no. 305/2011 (CPR).
Environmental information	These cables meet the substance-specific requirements of the EU Directive 2011/65/EU (RoHS).