0014150	DATA SHEET	LAPP
valid from: 16.06.2025	ÖLFLEX® CLASSIC 100 H	

Application

ÖLFLEX® CLASSIC 100 H are halogen free, highly flame retardant, oil resistant power cables for occasional flexible use and fixed installation subject to medium mechanical load conditions. They are among others designed for use in dry and humid conditions. They are suitable for permanent outdoor use if the indicated temperature range is observed.
They are suitable for occasional, non-automated movements. The maximum tensile load is 15 N/mm² of conductor cross-section during installation and operation. Compulsory guidance is not permitted.
Application range:
Public buildings, airport, railway station, plant engineering, industrial machinery, heating and air-conditioning systems and particularly where human and animal life as well as valuable property are exposed to high risk of fire hazards.

Design

Design	based on EN 50525-3-11 EN 50525-2-31 EN 50525-2-51
Certification	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 IEC 60228, class 5
Insulation	halogen free compound TI6, acc. to EN 50363-7, with increased requirements
Core identification code	acc. to VDE 0293-1, with or without GN/YE ground conductor up to 5 cores: coloured acc. to VDE 0293-308
Cable assembly	cores are stranded in layers
Outer sheath	halogen free compound TM7, acc. to EN 50363-8, with increased requirements colour: silver grey, similar RAL 7001

Electrical properties at 20 °C

Nominal voltage	EN U_0/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:	-30 °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 (5.000 cycles at ≥ + 5 °C) TW-2 (2.000 cycles at ≥ -40 °C) ± 150 °/m at 1 revolution per minute	
Flammability	flame retardant acc. to IEC 60332-1-2 resp. EN 60332-1-2 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 EN 50306-1 (≤ 6)	
UV resistance	acc. to EN 50618 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
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).
Environmental information	These cables meet the substance-specific requirements of the EU Directive 2011/65/EU (RoHS).