11101300	DATA SHEET	LAPP
valid from: 21.02.2020	ÖLFLEX® DC CHAIN 800	

Application

ÖLFLEX® DC CHAIN 800 are high flexible power cables for flexible use and fixed installation for medium mechanical load conditions. They are also suitable for use in dry, damp or wet areas. They are suitable for outdoor use if the indicated temperature range is observed. At room temperature, they are largely resistant to the effects of acids, alkalis and oils, as well as greases and plant-, animal-, mineral- or synthetic-based waxes.
They are especially suitable for increased requirements (Extended Line) in power chains and in permanently moved machine parts.
They are suitable for linear, automated movements. The maximum tensile load is 15 N/mm² of conductor cross-section during installation and operation. Compulsory guidance is not permitted.
All materials used are halogen-free.

Application range: Connection cable for electrical systems which are operated with direct voltage.

Design

Design	based on EN 50525-2-51 resp. VDE 0285-525-2-51
Conductor	extra fine wire strand of tinned copper acc. to IEC 60228 resp. VDE 0295, Class 6
Insulation	TPE (Thermoplastic Elastomer)
Core identification code	coloured cores: red (L+), white (L-), GN/YE
Stranding	cores with short length of layer stranded
Taping	nonwoven materials taping over outer layer
Outer sheath	special TPE–compound colour: black, similar RAL 9005

Electrical properties at 20°C

Specific volume resistivity	> 20 G Ω x cm
Nominal voltage	conductor – earth: 750 V DC conductor – conductor: 1500 V DC
Operating voltage	conductor – earth: max. 900 V DC conductor – conductor: max. 1800 V DC
Test voltage	4000 V AC

Mechanical and thermal properties

Minimum bending radius	for flexible applications: up from 7.5 x cable diameter at temperatures < 70° C up from 10 x cable diameter at temperatures ≤ 105° C fixed installation: 4 x cable diameter
Temperature range	for flexible applications: -40 °C up to + 105 °C max. conductor temp. fixed installation: -50 °C up to + 105 °C max. conductor temp.
Halogen free	acc. to VDE 0472-815
UV resistance	acc. to EN 50618 (VDE 0283-618) acc. to EN 50620 (VDE 0285-620) acc. to EN ISO 4892-2, method A (change of colour allowed)
Ozone resistance	acc. to EN 50396 resp. VDE 0473-396, method B
Oil resistance	TM5 acc. to EN 50363-4-1 resp. VDE 0207-363-4-1
Tests	acc. to IEC 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).