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Halogenfree, shielded control cables LiHCH

### STANDARDS

Product Nexans specification

#### Application

The cable WINDLINK® Control LSOH shielded was specifically designed for wind turbines. These cable is used where high flexibility, torsion- and oil-resistance are required. It is therefore a suitable connection for electrical equipments.

#### Product characteristics

- Suitable for torsion up to  $\pm 150^\circ/\text{m}$  (from  $-20^\circ\text{C}$  up to  $50^\circ\text{C}$ )
- Vibration resistant
- Low smoke according to IEC 61034-2
- Flame retardant according to IEC 60332-1
- Oil resistant according to EN 60811-2-1 and special oils used in wind turbines
- Halogen free according to IEC 60754
- UV resistant according to IEC 60068-2-5
- Ozone resistant according to EN 60811-2-1 clause 8



Rated Voltage  $U_0/U$   
(Um)  
300/500 V



Gases corrosivity  
IEC 60754-2



Fire retardant  
IEC 60332-1-2



Oil resistance  
EN 60811-2-1



Smoke density  
IEC 61034-2



U.V resistance  
IEC 60068-2-5



Max. conductor  
temp.in service  
- °C



Ambient dynamic  
operating  
temperature, range  
-30 ... 80 °C

**CHARACTERISTICS****Construction characteristics**

Construction type	12 x 1.5
Conductor material	Bare copper class 5
Insulation	Halogen free compound
Insulation colour	Black numbered
Screen	Tinned copper braid, coverage ≥ 80%
Outer sheath	Halogen free compound
Sheath colour	Black - RAL 9005

**Dimensional characteristics**

Number of cores	12
Conductor cross-section	1.5 mm <sup>2</sup>
Conductor diameter (mm)	
Insulation sheath thickness	- mm
Nominal outer sheath thickness	- mm
Diameter over braid	10.4 mm
Minimum cable diameter	- mm
Maximum cable diameter	- mm
Nominal diameter	13 inches
Approximate weight	- kg/km
Copper content	294 kg/km

**Electrical characteristics**

Max. DC resistance of the conductor at 20°C	13.3 Ohm/km
Max. Electrical Resistance AC 60Hz 70°C	- Ohm/km
Max. Electrical Resistance AC 60Hz 90°C	- Ohm/km
Inductive reactance	- Ohm/km
Insulation resistance at 20°C	100 MOhm.km
Operating capacitances	- mF/km
Permissible short circuit current	- kA
Rated Voltage U <sub>0</sub> /U (U <sub>m</sub> )	300/500 V
Test voltage	1500 V
Transfer impedance	10
Permissible current rating in open air	- A

**Mechanical characteristics**

Torsion stress	100 °/m
Maximum tensile strength	- N/mm <sup>2</sup>

**Usage characteristics**

Gases corrosivity	IEC 60754-2
Fire retardant	IEC 60332-1-2
Oil resistance	EN 60811-2-1
Smoke density	IEC 61034-2
U.V resistance	IEC 60068-2-5
Ozone resistance	EN 60811-2-1
Max. conductor temperature in service	- °C

**Usage characteristics**

Short-circuit max. conductor temperature	- °C
Ambient installation temperature	- °C
Ambient dynamic operating temperature, range	-30 ... 80 °C
Ambient static operating temperature, range	-40 ... 80 °C
Minimum bending radius, occasionally moving	8 (xD)
Minimum bending radius, fixed installation	4 (xD)