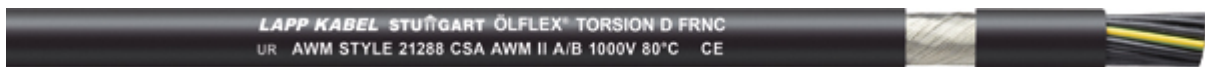


Screened cold- and oil resistant cables for flexible application under torsional load, halogen free - 0,6/1 kV

Product Description

The special construction compensates reliably the permanent torsional movements inside of windmills between the nacelle and the tower; The high flexibility and the good dismantle and stripping properties enable easy space- saving cable installation and fast processing; Saltwater resistant for On- and Off-Shore application; FRNC = Flame Retardant Non Corrosive - Reduction of flame propagation and density and toxicity of smoke gases in event of fire - Minimisation of damage to buildings and production facilities - Safety for maintenance staff resp. in areas with high personnel concentration; The copper wrapping of the screened D version protects against electromagnetic interference



Application range

- For fixed, flexible as well as for torsional moved applications in the field of machinery building and wind power plant engineering
- Especially for the drip loop installation between the rotating nacelle and the stationary windmill tower to connect the generator and control units
- As torsional moved cable for application in North America with UL WTTC Listing (Wind Turbine Tray Cable) we recommend ÖLFLEX® FORTIS which complies to the NFPA 79 standard resp. UL 2277 and UL 6140 outline

Benefits

- The special construction compensates reliably the permanent torsional movements inside of windmills between the nacelle and the tower
- The high flexibility and the good dismantle and stripping properties enable easy space- saving cable installation and fast processing
- Saltwater resistant for On- and Off-Shore application
- FRNC = Flame Retardant Non Corrosive - Reduction of flame propagation and density and toxicity of smoke gases in event of fire - Minimisation of damage to buildings and production facilities - Safety for maintenance staff resp. in areas with high personnel concentration
- The copper wrapping of the screened D version protects against electromagnetic interference

Design

- Extra fine wired conductor of plain copper
- Core insulation of LS0H polyolefin polymer
- Cores torsion optimized twisted into layers



- Optional screening (D) of helically tinned copper wire wrapping
- Outer sheath of halogen free special compound, colour black (RAL 9005)

Approvals (Norm references)

- UL AWM Style 21288 / cUL AWM II A/B
- Fire behaviour : - Halogen free (IEC 60754-1) - Corrosivity of gases (IEC 60754-2) - Smoke density (IEC 61034-2) - Flame retardant (IEC 60332-1-2) - No flame propagation (IEC 60332-3-24 resp. IEC 60332-3-25)
- Oil resistant acc. to EN 60811-2-1 and UL OIL RES I and UL OIL RES II
- UV-resistant according ISO 4892-2
- Ozone resistant according EN 50396

Product features

- Torsion-resistant up to ± 150 °/mtr
- Good weather-, abrasion-, temperature- and UV resistance
- Resistant against a multitude of oils
- Halogen free and highly flame retardant
- Considering economic minimum quantities also customized designs are possible

Technical Data

Core identification code

Control and connection cables: Colour coded according to VDE 0293-308, see Appendix T9
Starting at 6 cores: Black with white numbers
Paired signal cables: DIN 47100

Approvals

UL AWM Style 21288 cUL AWM II A/B

Specific insulation resistance

> 20 GOhm x cm

Conductor stranding

Extra fine wire in acc. to VDE 0295 Cl.6 / IEC 60228 Cl.6

Minimum bending radius

Flexible use: 10 x outer diameter
Fixed installed: 6 x outer diameter

Rated voltage

nach VDE: U0/U 0,6/1,0 kV
Working voltage acc. UL: 1000V

Test voltage

C/C: 4000 V C/S: 2000 V

Protective conductor

G = with protective conductor GN/YE

X = without protective conductor

Range of temperature

Flexible use: -40°C up to +90°C (UL +80°C)

Static use: -40°C up to +90°C (UL +80°C)

Article List

Part number	Number of cores and mm ² per conductor	Outer diameter in mm	Copper index kg/km	Weight kg/km
ÖLFLEX® TORSION D FRNC - screened				
1150111	4 x 2 x 0,5	11,9	71.0	205
1150115	12 x 2 x 0,5	18,3	188.0	518
1150121	4 x 2 x 0,75	12,7	90.0	232
1150125	12 x 2 x 0,75	19,8	258.0	603
1150221	18 G 0,75	15,2	180.0	402
1150228	50 G 0,75	24,9	470.0	1079

Footnote:

All product related values as shown are nominal values unless specified differently. Further values, e.g. tolerances we submit on request - if available and released for publication.

Copper price basis: EUR 150 / 100 kg; For utilization and definition of 'Metal price basis' and 'Metal index' see Appendix T17

Please find our standard lengths at: www.lappkabel.de/en/cable-standardlengths

Packaging size: Coil ≤ 30 kg and ≤ 250 m, otherwise drum

Please specify the desired packaging size (e.g. 1 x 500 m drum or 5 x 100 m coils)

Photographs are not to scale and do not represent detailed images of the respective products.