halogen-free wind turbine torsion & tower cable

FRNC 0.6/1 kV Drip-Loop

FRNC / LSZH 0.6/1 kV (IEC) & 1,000 V (UL) Halogen-Free Flame-Retardant

IEC 60332-3 / UL 1000V · 0.6/1 kV / 1,000 V · Halogen-free wind turbine torsion &



IEC 60332-3 / UL 1000V | **0.6/1 kV / 1,000 V (-40 to +90 °C)** | **FRNC/LSZH Thermoset Outer Sheath (±1**

Application

FRNC / LSZH 0.6/1 kV (IEC) & 1,000 V (UL) Halogen-Free Flame-Retardant Wind Drip-Loop Torsion Cable (IEC 60332-3 / UL 1000V) engineered for 0.6/1 kV / 1,000 V wind turbine service across -40 to +90 °C (min. bend radius 6 × OD).

Typical uses: Onshore & Offshore Wind Turbine Nacelle Drip Loops, Wind Turbine Generator-to-Converter Main Power Drops, Halogen-Free Wind Tower Vertical Power Distribution, Cold-Climate (−40 °C) Renewable Energy Installations

Construction





Cross-section, not to scale

1. Class 5 Flexible Bare Copper (2-37 Cores
2. Halogen-Free XLPO / EPR Core Insulation
3. FRNC/LSZH Thermoset Outer Sheath (±150°/

Technical data

Typical values

Rated voltage / operating system	0.6/1 kV / 1,000 V (IEC 60332-3-22/24, IEC 60754-2 & UL 1,000 V FRNC/LSZH (±150°/m) Wind Specification)	**Core / conductor construction**	Class 5 Flexible Bare Copper (2-37 Cores, 0.5-95 mm²) — Stranded plain copper conductors for control & auxiliary power
Primary dielectric / insulation	Halogen-Free XLPO / EPR Core Insulation — Cross-linked zero-halogen numbered core insulation	**Continuous operating temperature**	−40…+90 °C (wind turbine nacelle, hub & tower duty)
Low-temperature torsion & cold bend	Verified cold-flex and torsion endurance across −40…+90 °C per IEC 60332-3-22/24, IEC 60754-2 & UL 1,000 V FRNC/LSZH (±150°/m) Wind Specification	**Storage & transport temperature**	−40…+80 °C on export wooden/steel cable drum
Outer jacket / sheath protection	FRNC/LSZH Thermoset Outer Sheath (±150°/m) — Flame-retardant non-corrosive low-smoke elastomer jacket	**Minimum bending radius**	6 × OD
Intermediate screen / separator / core layer	Halogen-Free XLPO / EPR Core Insulation — Cross-linked zero-halogen numbered core insulation	**Oil, grease, ozone & UV resistance**	Resistant to wind turbine gearbox oil, hydraulic fluid, ozone and UV weathering per IEC 60332-3-22/24, IEC 60754-2 & UL 1,000 V FRNC/LSZH (±150°/m) Wind Specification
Flame retardancy & smoke/halogen emission	Flame-retardant and environmental performance verified per IEC 60332-3-22/24, IEC 60754-2 & UL 1,000 V FRNC/LSZH (±150°/m) Wind Specification	**RoHS & REACH compliance**	RoHS 2 (2011/65/EU + 2015/863) & REACH SVHC compliant
Standards	IEC 60332-3-22/24, IEC 60754-2 & UL 1,000 V FRNC/LSZH (±150°/m) Wind Specification		

Sizes

3 standard constructions

Tick the sizes you need and send this page to info@tebaoflex.com or WhatsApp +86 185 9591 3361.

Order designation	Configuration	Core / stranding	Outer Ø ≈ mm	Net weight ≈ kg/km	Max. pulling kN ≈	Min. bend R mm
FRNC 0.6/1 kV Drip-Loop Construction Schedule (−40…+90 °C) 3 sizes						
☐ **FRNC 0.6 7G1.5 mm²**	**7G1.5 mm² (or 7C × 16 AWG)**	**IEC 60228 Class 5/6 / Class K Cu**	**11.4**	**215**	**2.4**	**70**
☐ **FRNC 0.6 12G1.5 mm²**	**12G1.5 mm² (or 12C × 16 AWG)**	**IEC 60228 Class 5/6 / Class K Cu**	**14.8**	**345**	**4.1**	**90**
☐ **FRNC 0.6 18G2.5 mm²**	**18G2.5 mm² (or 18C × 14 AWG)**	**IEC 60228 Class 5/6 / Class K Cu**	**19.6**	**680**	**9.8**	**120**

– Custom conductor cross-sections, core counts, pre-lugged tower kits and drum lengths available per IEC 60332-3-22/24, IEC 60754-2 & UL 1,000 V FRNC/LSZH (±150°/m) Wind Specification.

Electrical & thermal parameters

3 sizes

Configuration	Max. DC R_{20} Ω/km	Rating / Impedance	Operating temp.
7G1.5 mm² (or 7C × 16 AWG)	**13.30**	**0.6/1 kV / 1,000 V (18 A)**	**−40…+90 °C**
12G1.5 mm² (or 12C × 16 AWG)	**13.30**	**0.6/1 kV / 1,000 V (16 A)**	**−40…+90 °C**
18G2.5 mm² (or 18C × 14 AWG)	**7.98**	**0.6/1 kV / 1,000 V (24 A)**	**−40…+90 °C**

– Every production length undergoes routine conductor DC resistance, AC high-voltage spark/dielectric and dimensional verification.

Standards and approvals

- IEC 60332-3 / UL 1000V Compliant
- EN 10204 3.1 Factory Test Certificate
- CE, RoHS 2 (2011/65/EU) & REACH

Certifications

Management systems: ISO 9001, ISO 14001, ISO 45001

Request a quotation

Send the size, length and destination. An application engineer replies within 2 business hours.

WhatsApp / phone
+86 185 9591 3361

Email
info@tebaoflex.com

Web
tebaoflex.com/cables/frnc-0-6-1kv-halogen-free-drip-loop-torsion-cable

Typical values for this cable type, based on IEC 60332-3-22/24, IEC 60754-2 & UL 1,000 V FRNC/LSZH (±150°/m) Wind Specification. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.