halogen-free wind turbine torsion & tower cable

1.8/3 kV IEC / 2000V UL RHW-2 LSOH

Global Dual-Standard 1.8/3 (3.6) kV (IEC 60502-1) & 2,000 V (UL RHW-2

IEC 60502-1 / UL 44 RHW-2 · 1.8/3 kV / 2,000 V · Halogen-free wind turbine torsion &



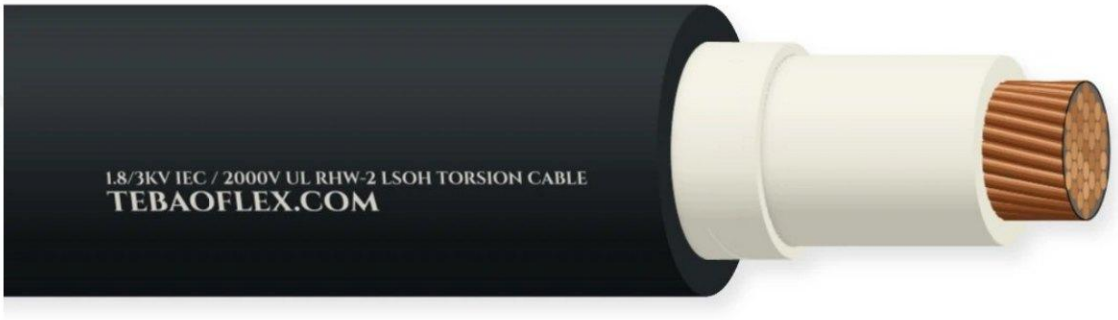
IEC 60502-1 / UL 44 RHW-2 | **1.8/3 kV / 2,000 V (-40 to +90 °C)** | **Black LSOH Thermoset Elastomer Jacke**

Application

Global Dual-Standard 1.8/3 (3.6) kV (IEC 60502-1) & 2,000 V (UL RHW-2 / WTTC) LSOH Wind Torsion Cable (IEC 60502-1 / UL 44 RHW-2) engineered for 1.8/3 kV / 2,000 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 Annealed Fine Copper (25-400 mm²
2. HEPR / EPR Dual-Standard Dielectric
3. Black LSOH Thermoset Elastomer Jacket

Technical data

Typical values

Rated voltage / operating system	1.8/3 kV / 2,000 V (IEC 60502-1 (1.8/3 kV) & UL 44 RHW-2 / UL 2277 (2,000 V) Dual-Standard Wind Specification)	**Core / conductor construction**	Class 5 Annealed Fine Copper (25-400 mm²) — IEC 60228 Class 5 flexible plain copper single-core conductor
Primary dielectric / insulation	HEPR / EPR Dual-Standard Dielectric — Certified to both IEC 1.8/3 (3.6) kV and UL RHW-2 2,000 V	**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 60502-1 (1.8/3 kV) & UL 44 RHW-2 / UL 2277 (2,000 V) Dual-Standard Wind Specification	**Storage & transport temperature**	−40…+80 °C on export wooden/steel cable drum
Outer jacket / sheath protection	Black LSOH Thermoset Elastomer Jacket — Low-smoke zero-halogen flame- and torsion-resistant outer sheath	**Minimum bending radius**	6 × OD
Intermediate screen / separator / core layer	HEPR / EPR Dual-Standard Dielectric — Certified to both IEC 1.8/3 (3.6) kV and UL RHW-2 2,000 V	**Oil, grease, ozone & UV resistance**	Resistant to wind turbine gearbox oil, hydraulic fluid, ozone and UV weathering per IEC 60502-1 (1.8/3 kV) & UL 44 RHW-2 / UL 2277 (2,000 V) Dual-Standard Wind Specification
Flame retardancy & smoke/halogen emission	Flame-retardant and environmental performance verified per IEC 60502-1 (1.8/3 kV) & UL 44 RHW-2 / UL 2277 (2,000 V) Dual-Standard Wind Specification	**RoHS & REACH compliance**	RoHS 2 (2011/65/EU + 2015/863) & REACH SVHC compliant
Standards	IEC 60502-1 (1.8/3 kV) & UL 44 RHW-2 / UL 2277 (2,000 V) Dual-Standard 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
1.8/3 kV IEC / 2000V UL RHW-2 LSOH Construction Schedule (−40…+90 °C) 3 sizes						
☐ 1.8/3 kV IEC / 2000V U 1×95 / 4G25 Cu	1 × 95 mm² (or 4G25 mm² / 3/0 AWG)	IEC 60228 Class 5 Flexible Cu/SnCu	21.6	1,080	14.2	110
☐ 1.8/3 kV IEC / 2000V U 1×185 / 4G50 Cu	1 × 185 mm² (or 4G50 mm² / 373 kcmil)	IEC 60228 Class 5 Flexible Cu/SnCu	27.8	1,960	27.5	140
☐ 1.8/3 kV IEC / 2000V U 1×300 / 4G95 Cu	1 × 300 mm² (or 1×535/777 kcmil)	IEC 60228 Class 5 Flexible Cu/SnCu	34.6	3,120	45.0	175

– Custom conductor cross-sections, core counts, pre-lugged tower kits and drum lengths available per IEC 60502-1 (1.8/3 kV) & UL 44 RHW-2 / UL 2277 (2,000 V) Dual-Standard Wind Specification.

Electrical & thermal parameters

3 sizes

Configuration	Max. DC R_{20} Ω/km	Rating / Impedance	Operating temp.
1 × 95 mm² (or 4G25 mm² / 3/0 AWG)	0.21	1.8/3 kV / 2,000 V (320 A Cu)	−40…+90 °C
1 × 185 mm² (or 4G50 mm² / 373 kcmil)	0.11	1.8/3 kV / 2,000 V (495 A Cu)	−40…+90 °C
1 × 300 mm² (or 1×535/777 kcmil)	0.06	1.8/3 kV / 2,000 V (680 A Cu)	−40…+90 °C

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

Standards and approvals

- IEC 60502-1 / UL 44 RHW-2 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/1-8-3kv-iec-2000v-ul-rhw-2-lsoh-torsion-cable

Typical values for this cable type, based on IEC 60502-1 (1.8/3 kV) & UL 44 RHW-2 / UL 2277 (2,000 V) Dual-Standard 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.