flexible elastomer wind turbine torsion cable

WT-PX 1.8/3.0 kV

(Umax 3.6 kV) Single-Core EPR Low-Temperature Windmil

IEC 60502-1 / IEC 60228 · 1.8/3.0 (3.6) kV · Flexible elastomer wind turbine torsion cable



IEC 60502-1 / IEC 60228 | **1.8/3.0 (3.6) kV (-40 to +90 °C)** | **-40 °C CR / CPE / HFFR Torsion Outer**

Application

WT-PX 1.8/3.0 kV (Umax 3.6 kV) Single-Core EPR Low-Temperature Windmill Drip-Loop Torsion Cable (IEC 60502-1 / IEC 60228) engineered for 1.8/3.0 (3.6) kV wind turbine service across -40 to +90 °C (min. bend radius 5 × OD).

Typical uses: Onshore & Offshore Wind Turbine Yaw Drip Loops, Ultra-Cold (−55 °C) Arctic & High-Altitude Wind Farms, GB/T 29631 & NB/T 31034 Utility Wind Generators, Nacelle Auxiliary Power, Yaw & Pitch Motor Circuits

Construction





Cross-section, not to scale

1. IEC 60228 Class 5 Bare Copper (25-400 mm
2. 1.8/3.0 (3.6) KV EPR Primary Insulation
3. -40 °C CR / CPE / HFFR Torsion Outer Jac

Technical data

Typical values

Rated voltage / operating system	1.8/3.0 (3.6) kV (IEC 60502-1 & IEC 60228 WT-PX 1.8/3.0 (3.6) kV Windmill Torsion Specification)	**Core / conductor construction**	IEC 60228 Class 5 Bare Copper (25-400 mm²) — Flexible stranded plain copper conductor
Primary dielectric / insulation	1.8/3.0 (3.6) KV EPR Primary Insulation — Cross-linked ethylene-propylene rubber dielectric	**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 & IEC 60228 WT-PX 1.8/3.0 (3.6) kV Windmill Torsion Specification	**Storage & transport temperature**	−40…+80 °C on export wooden/steel cable drum
Outer jacket / sheath protection	-40 °C CR / CPE / HFFR Torsion Outer Jacket — Cold-resistant elastomer sheath for vertical windmill drip loops	**Minimum bending radius**	5 × OD
Intermediate screen / separator / core layer	1.8/3.0 (3.6) KV EPR Primary Insulation — Cross-linked ethylene-propylene rubber dielectric	**Oil, grease, ozone & UV resistance**	Resistant to wind turbine gearbox oil, hydraulic fluid, ozone and UV weathering per IEC 60502-1 & IEC 60228 WT-PX 1.8/3.0 (3.6) kV Windmill Torsion Specification
Flame retardancy & smoke/halogen emission	Flame-retardant and environmental performance verified per IEC 60502-1 & IEC 60228 WT-PX 1.8/3.0 (3.6) kV Windmill Torsion Specification	**RoHS & REACH compliance**	RoHS 2 (2011/65/EU + 2015/863) & REACH SVHC compliant
Standards	IEC 60502-1 & IEC 60228 WT-PX 1.8/3.0 (3.6) kV Windmill Torsion 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
WT-PX 1.8/3.0 kV Construction Schedule (−40…+90 °C) 3 sizes						
☐ **WT-PX 1.8 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**
☐ **WT-PX 1.8 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**
☐ **WT-PX 1.8 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 & IEC 60228 WT-PX 1.8/3.0 (3.6) kV Windmill Torsion 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**	**1.8/3.0 (3.6) kV (320 A Cu)**	**−40…+90 °C**
1 × 185 mm² (or 4G50 mm² / 373 kcmil)	**0.11**	**1.8/3.0 (3.6) kV (495 A Cu)**	**−40…+90 °C**
1 × 300 mm² (or 1×535/777 kcmil)	**0.06**	**1.8/3.0 (3.6) kV (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 / IEC 60228 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/wt-px-1-8-3-0kv-epr-torsion-windmill-cable

Typical values for this cable type, based on IEC 60502-1 & IEC 60228 WT-PX 1.8/3.0 (3.6) kV Windmill Torsion Specification. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.