flexible elastomer wind turbine torsion cable

WK 300w-Torsion 1.8/3 kV

(6.5 kV AC Test) +110 °C UV & Heat-Resistant

DIN VDE 0250 / IEC 60502-1 · 1.8/3 kV · Flexible elastomer wind turbine torsion cable



DIN VDE 0250 / IEC 60502-1 | 1.8/3 kV (-50 to +110 °C) | +110 °C UV & Abrasion-Resistant Oute

Application

WK 300w-Torsion 1.8/3 kV (6.5 kV AC Test) +110 °C UV & Heat-Resistant Wind Turbine Torsion Cable (DIN VDE 0250 / IEC 60502-1) engineered for 1.8/3 kV wind turbine service across -50 to +110 °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. VDE 0295 Class 5 Bare Copper (70-400 mm²
2. 1.8/3 kV Heat-Resistant Elastomer Insula
3. +110 °C UV & Abrasion-Resistant Outer Sh

Technical data

Typical values

Rated voltage / operating system	1.8/3 kV (DIN VDE 0250 & IEC 60502-1 WK 300w-Torsion (>18,000 Cycles) Wind Specification)	**Core / conductor construction**	VDE 0295 Class 5 Bare Copper (70-400 mm²) — Multi-strand flexible plain copper conductor for main power loops
Primary dielectric / insulation	1.8/3 kV Heat-Resistant Elastomer Insulation — Special elastomeric dielectric tested at 6.5 kV AC	**Continuous operating temperature**	−50…+110 °C (wind turbine nacelle, hub & tower duty)
Low-temperature torsion & cold bend	Verified cold-flex and torsion endurance across −50…+110 °C per DIN VDE 0250 & IEC 60502-1 WK 300w-Torsion (>18,000 Cycles) Wind Specification	**Storage & transport temperature**	−40…+80 °C on export wooden/steel cable drum
Outer jacket / sheath protection	+110 °C UV & Abrasion-Resistant Outer Sheath — Black elastomer jacket surviving >18,000 cycles of ±100°/m torsion	**Minimum bending radius**	5 × OD
Intermediate screen / separator / core layer	1.8/3 kV Heat-Resistant Elastomer Insulation — Special elastomeric dielectric tested at 6.5 kV AC	**Oil, grease, ozone & UV resistance**	Resistant to wind turbine gearbox oil, hydraulic fluid, ozone and UV weathering per DIN VDE 0250 & IEC 60502-1 WK 300w-Torsion (>18,000 Cycles) Wind Specification
Flame retardancy & smoke/halogen emission	Flame-retardant and environmental performance verified per DIN VDE 0250 & IEC 60502-1 WK 300w-Torsion (>18,000 Cycles) Wind Specification	**RoHS & REACH compliance**	RoHS 2 (2011/65/EU + 2015/863) & REACH SVHC compliant
Standards	DIN VDE 0250 & IEC 60502-1 WK 300w-Torsion (>18,000 Cycles) 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
WK 300w-Torsion 1.8/3 kV Construction Schedule (−50…+110 °C) 3 sizes						
☐ **WK 300w-Torsion 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**
☐ **WK 300w-Torsion 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**
☐ **WK 300w-Torsion 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 DIN VDE 0250 & IEC 60502-1 WK 300w-Torsion (>18,000 Cycles) 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 (320 A Cu)**	**−50…+110 °C**
1 × 185 mm² (or 4G50 mm² / 373 kcmil)	**0.11**	**1.8/3 kV (495 A Cu)**	**−50…+110 °C**
1 × 300 mm² (or 1×535/777 kcmil)	**0.06**	**1.8/3 kV (680 A Cu)**	**−50…+110 °C**

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

Standards and approvals

- DIN VDE 0250 / IEC 60502-1 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/wk-300w-torsion-1-8-3kv-uv-resistant-wind-cable

Typical values for this cable type, based on DIN VDE 0250 & IEC 60502-1 WK 300w-Torsion (>18,000 Cycles) 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.