flexible elastomer wind turbine torsion cable

FDEFP 1.8/3 kV Screened

FDEFP 1.8/3 kV (0.6/1 kV) GB/T 29631 Tinned-Copper Braid Screened EPR/

GB/T 29631 / NB/T 31034 · 1.8/3 kV (0.6/1 kV) · Flexible elastomer wind turbine



GB/T 29631 / NB/T 31034 | 1.8/3 kV (0.6/1 kV) (-40 to +90 °C) | Polychloroprene (CR) / CSM Outer She

Application

FDEFP 1.8/3 kV (0.6/1 kV) GB/T 29631 Tinned-Copper Braid Screened EPR/CR Wind Torsion Cable (GB/T 29631 / NB/T 31034) engineered for 1.8/3 kV (0.6/1 kV) wind turbine service across -40 to +90 °C (min. bend radius 6 × 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. Class 5 Flexible Copper / Tinned Copper
2. EPR Primary Core Insulation (Code E)
3. Tinned Copper Wire Braid Screen (Code P)
4. Polychloroprene (CR) / CSM Outer Sheath

Technical data

Typical values

Rated voltage / operating system	1.8/3 kV (0.6/1 kV) (GB/T 29631 & NB/T 31034 FDEFP EMC-Screened EPR/CR Wind Torsion Cable Standard)	**Core / conductor construction**	Class 5 Flexible Copper / Tinned Copper Cores — Stranded flexible copper conductors rated up to 1.8/3 kV
Primary dielectric / insulation	EPR Primary Core Insulation (Code E) — High-dielectric ethylene-propylene rubber 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 GB/T 29631 & NB/T 31034 FDEFP EMC-Screened EPR/CR Wind Torsion Cable Standard	**Storage & transport temperature**	−40…+80 °C on export wooden/steel cable drum
Outer jacket / sheath protection	Polychloroprene (CR) / CSM Outer Sheath (Code F) — Oil-, salt-spray- and torsion-resistant heavy rubber jacket	**Minimum bending radius**	6 × OD
Intermediate screen / separator / core layer	Tinned Copper Wire Braid Screen (Code P) — High-coverage braided tinned copper EMC shield	**Oil, grease, ozone & UV resistance**	Resistant to wind turbine gearbox oil, hydraulic fluid, ozone and UV weathering per GB/T 29631 & NB/T 31034 FDEFP EMC-Screened EPR/CR Wind Torsion Cable Standard
Flame retardancy & smoke/halogen emission	Flame-retardant and environmental performance verified per GB/T 29631 & NB/T 31034 FDEFP EMC-Screened EPR/CR Wind Torsion Cable Standard	**RoHS & REACH compliance**	RoHS 2 (2011/65/EU + 2015/863) & REACH SVHC compliant
Standards	GB/T 29631 & NB/T 31034 FDEFP EMC-Screened EPR/CR Wind Torsion Cable Standard		

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
FDEFP 1.8/3 kV Screened Construction Schedule (−40…+90 °C) 3 sizes						
☐ **FDEFP 1.8 7G1.5 mm²**	**7G1.5 mm² (or 7C × 16 AWG)**	**IEC 60228 Class 5/6 / Class K Cu**	**11.4**	**215**	**2.4**	**70**
☐ **FDEFP 1.8 12G1.5 mm²**	**12G1.5 mm² (or 12C × 16 AWG)**	**IEC 60228 Class 5/6 / Class K Cu**	**14.8**	**345**	**4.1**	**90**
☐ **FDEFP 1.8 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 GB/T 29631 & NB/T 31034 FDEFP EMC-Screened EPR/CR Wind Torsion Cable Standard.

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**	**1.8/3 kV (0.6/1 kV) (18 A)**	**−40…+90 °C**
12G1.5 mm² (or 12C × 16 AWG)	**13.30**	**1.8/3 kV (0.6/1 kV) (16 A)**	**−40…+90 °C**
18G2.5 mm² (or 18C × 14 AWG)	**7.98**	**1.8/3 kV (0.6/1 kV) (24 A)**	**−40…+90 °C**

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

Standards and approvals

- GB/T 29631 / NB/T 31034 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/fdefp-1-8-3kv-screened-epr-cr-torsion-cable

Typical values for this cable type, based on GB/T 29631 & NB/T 31034 FDEFP EMC-Screened EPR/CR Wind Torsion Cable Standard. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.