halogen-free wind turbine torsion & tower cable

FDLHEH 1.8/3 kV AA8000 Al-Alloy

FDLHEH 1.8/3 kV (0.6/1 kV) Class 5 AA8000 Flexible Aluminum-Alloy EPR



T/CECA 408 / NB/T 31034 · 1.8/3 kV (0.6/1 kV) · Halogen-free wind turbine torsion &

T/CECA 408 / NB/T 31034 | 1.8/3 kV (0.6/1 kV) (-40 to +90 °C) | Class-A LSZH Thermoset Elastomer She

Application

FDLHEH 1.8/3 kV (0.6/1 kV) Class 5 AA8000 Flexible Aluminum-Alloy EPR / Class-A LSZH Wind Torsion & Tower Cable (T/CECA 408 / 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 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 AA8000 Flexible Al-Alloy Conduct
2. 1.8/3 kV EPR Elastomeric Insulation (Cod
3. Class-A LSZH Thermoset Elastomer Sheath

Technical data

Typical values

Rated voltage / operating system	1.8/3 kV (0.6/1 kV) (T/CECA 408 & NB/T 31034 FDLHEH AA8000 Al-Alloy Cat.A LSZH Wind Torsion Specification)	**Core / conductor construction**	Class 5 AA8000 Flexible Al-Alloy Conductor (Code LH) — High-creep-resistance flexible aluminum alloy (70-400 mm²)
Primary dielectric / insulation	1.8/3 kV EPR Elastomeric Insulation (Code E) — Cross-linked ethylene-propylene rubber primary 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 T/CECA 408 & NB/T 31034 FDLHEH AA8000 Al-Alloy Cat.A LSZH Wind Torsion Specification	**Storage & transport temperature**	−40…+80 °C on export wooden/steel cable drum
Outer jacket / sheath protection	Class-A LSZH Thermoset Elastomer Sheath (Code H) — IEC 60332-3-22 Cat.A halogen-free elastomer jacket (-40 °C)	**Minimum bending radius**	6 × OD
Intermediate screen / separator / core layer	1.8/3 kV EPR Elastomeric Insulation (Code E) — Cross-linked ethylene-propylene rubber primary insulation	**Oil, grease, ozone & UV resistance**	Resistant to wind turbine gearbox oil, hydraulic fluid, ozone and UV weathering per T/CECA 408 & NB/T 31034 FDLHEH AA8000 Al-Alloy Cat.A LSZH Wind Torsion Specification
Flame retardancy & smoke/halogen emission	Flame-retardant and environmental performance verified per T/CECA 408 & NB/T 31034 FDLHEH AA8000 Al-Alloy Cat.A LSZH Wind Torsion Specification	**RoHS & REACH compliance**	RoHS 2 (2011/65/EU + 2015/863) & REACH SVHC compliant
Standards	T/CECA 408 & NB/T 31034 FDLHEH AA8000 Al-Alloy Cat.A LSZH Wind 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
FDLHEH 1.8/3 kV AA8000 Al-Alloy Construction Schedule (−40…+90 °C) 3 sizes						
☐ **FDLHEH 1.8 1×150 / 4×95 Al**	**1 × 150 mm² (or 4 × 95 mm² Al)**	**Class 2 Compacted Al / Class 5 AA8000**	**23.5**	**640**	**10.5**	**190**
☐ **FDLHEH 1.8 1×240 / 4×150 Al**	**1 × 240 mm² (or 4 × 150 mm² Al)**	**Class 2 Compacted Al / Class 5 AA8000**	**28.4**	**980**	**16.8**	**230**
☐ **FDLHEH 1.8 1×400 / 4×240 Al**	**1 × 400 mm² (or 4 × 240 mm² Al)**	**Class 2 Compacted Al / Class 5 AA8000**	**35.8**	**1,590**	**28.0**	**290**

– Custom conductor cross-sections, core counts, pre-lugged tower kits and drum lengths available per T/CECA 408 & NB/T 31034 FDLHEH AA8000 Al-Alloy Cat.A LSZH Wind Torsion Specification.

Electrical & thermal parameters

3 sizes

Configuration	Max. DC R_{20} Ω/km	Rating / Impedance	Operating temp.
1 × 150 mm² (or 4 × 95 mm² Al)	**0.21**	**1.8/3 kV (0.6/1 kV) (315 A Al)**	**−40…+90 °C**
1 × 240 mm² (or 4 × 150 mm² Al)	**0.12**	**1.8/3 kV (0.6/1 kV) (435 A Al)**	**−40…+90 °C**
1 × 400 mm² (or 4 × 240 mm² Al)	**0.08**	**1.8/3 kV (0.6/1 kV) (590 A Al)**	**−40…+90 °C**

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

Standards and approvals

- ✓ T/CECA 408 / 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/fdlheh-1-8-3kv-al-alloy-torsion-wind-cable

Typical values for this cable type, based on T/CECA 408 & NB/T 31034 FDLHEH AA8000 Al-Alloy Cat.A LSZH Wind 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.