wind turbine drip-loop, tray & pitch control cable

CONTROL TM/CY UL WTTC 1000V

CONTROL TM/CY UL Type WTTC 1,000 V / TC-ER 600 V Foil + 85% TCWB Dual-

UL 2277 WTTC / UL 1277 TC-ER · 1,000 V WTTC / 600 V TC-ER · Wind turbine drip-loop,



UL 2277 WTTC / UL 1277 TC-ER | **1,000 V WTTC / 600 V TC-ER (-40 to +** | **-40 °C Oil-Resistant Thermoplastic J**

Application

CONTROL TM/CY UL Type WTTC 1,000 V / TC-ER 600 V Foil + 85% TCWB Dual-Shielded Torsion Control Cable (UL 2277 WTTC / UL 1277 TC-ER) engineered for 1,000 V WTTC / 600 V TC-ER wind turbine service across -40 to +90 °C (min. bend radius 6 × OD).

Typical uses: Wind Turbine Rotor Hub Pitch Control & Slip-Rings, Nacelle-to-Tower Multi-Core Drip-Loop Control Bundles, UL 2277 WTTC / TC-ER Nacelle & Tower Cable Trays, Blade De-Icing, Trace Heating & Aviation Obstruction Lights

Construction





Cross-section, not to scale

1. Class 5 Flexible Bare Copper (2-50 Cores
2. PVC / Nylon Composite Core Insulation
3. Al/PET Foil + 85% Tinned Copper Braid (C
4. -40 °C Oil-Resistant Thermoplastic Jacke

Technical data

Typical values

Rated voltage / operating system	1,000 V WTTC / 600 V TC-ER (UL Subject 2277 WTTC 1,000 V, UL 1277 TC-ER 600 V & CSA AWM Dual-Shielded Specification)	**Core / conductor construction**	Class 5 Flexible Bare Copper (2-50 Cores) — Stranded plain copper conductors (18 AWG to 2 AWG)
Primary dielectric / insulation	PVC / Nylon Composite Core Insulation — UL WTTC 1,000 V & TC-ER 600 V numbered core 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 UL Subject 2277 WTTC 1,000 V, UL 1277 TC-ER 600 V & CSA AWM Dual-Shielded Specification	**Storage & transport temperature**	−40…+80 °C on export wooden/steel cable drum
Outer jacket / sheath protection	-40 °C Oil-Resistant Thermoplastic Jacket — UL WTTE wind turbine torsion-tested outer sheath	**Minimum bending radius**	6 × OD
Intermediate screen / separator / core layer	Al/PET Foil + 85% Tinned Copper Braid (CY) — Dual electromagnetic shielding for nacelle & tower tray circuits	**Oil, grease, ozone & UV resistance**	Resistant to wind turbine gearbox oil, hydraulic fluid, ozone and UV weathering per UL Subject 2277 WTTC 1,000 V, UL 1277 TC-ER 600 V & CSA AWM Dual-Shielded Specification
Flame retardancy & smoke/halogen emission	Flame-retardant and environmental performance verified per UL Subject 2277 WTTC 1,000 V, UL 1277 TC-ER 600 V & CSA AWM Dual-Shielded Specification	**RoHS & REACH compliance**	RoHS 2 (2011/65/EU + 2015/863) & REACH SVHC compliant
Standards	UL Subject 2277 WTTC 1,000 V, UL 1277 TC-ER 600 V & CSA AWM Dual-Shielded 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
CONTROL TM/CY UL WTTC 1000V Construction Schedule (−40…+90 °C) 3 sizes						
☐ **CONTROL TM 7G1.5 mm²**	**7G1.5 mm² (or 7C × 16 AWG)**	**IEC 60228 Class 5/6 / Class K Cu**	**11.4**	**215**	**2.4**	**70**
☐ **CONTROL TM 12G1.5 mm²**	**12G1.5 mm² (or 12C × 16 AWG)**	**IEC 60228 Class 5/6 / Class K Cu**	**14.8**	**345**	**4.1**	**90**
☐ **CONTROL TM 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 UL Subject 2277 WTTC 1,000 V, UL 1277 TC-ER 600 V & CSA AWM Dual-Shielded Specification.

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**	**1,000 V WTTC / 600 V TC-ER (18 A)**	**−40…+90 °C**
12G1.5 mm² (or 12C × 16 AWG)	**13.30**	**1,000 V WTTC / 600 V TC-ER (16 A)**	**−40…+90 °C**
18G2.5 mm² (or 18C × 14 AWG)	**7.98**	**1,000 V WTTC / 600 V TC-ER (24 A)**	**−40…+90 °C**

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

Standards and approvals

- UL 2277 WTTC / UL 1277 TC-ER 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/control-tm-cy-ul-wttc-1000v-torsion-cable

Typical values for this cable type, based on UL Subject 2277 WTTC 1,000 V, UL 1277 TC-ER 600 V & CSA AWM Dual-Shielded Specification. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.