EMC-shielded wind turbine converter & VFD drive cable

UL WTTC 1000V Braid-Shielded Tray

UL Type WTTC 1,000 V / UL 1277 TC-ER 600 V Class K 85% Tinned-Copper B

UL 2277 WTTC / UL 1277 TC-ER · 1,000 V WTTC / 600 V TC-ER · Emc-shielded wind turbine



UL 2277 WTTC / UL 1277 TC-ER | 1,000 V WTTC / 600 V TC-ER (-40 to + | Cold & Oil-Resistant PVC Outer Jacke

Application

UL Type WTTC 1,000 V / UL 1277 TC-ER 600 V Class K 85% Tinned-Copper Braid Shielded Wind Turbine Tray & Drive Cable (UL 2277 WTTC / UL 1277 TC-ER, 1,000 V WTTC / 600 V TC-ER, -40 to +90 °C, min. bend radius 6 × OD).

Typical uses: Wind Turbine Main Power Converter & Generator Drives, Electric Yaw Drive & Blade Pitch Servo VFD Motors, Nacelle Hydraulic Pump, Cooling Fan & Auxiliary VFDs, UL 2277 WTTC 1,000 V & 2,000 V Renewable Drive Systems

Construction





Cross-section, not to scale

1. Class K Fine Stranded Bare Copper (14–2
2. PVC / Nylon Composite Core Insulation
3. 85% Coverage Tinned Copper Braid Shield
4. Cold & Oil-Resistant PVC Outer Jacket

Technical data

Typical values

Rated voltage / operating system	1,000 V WTTC / 600 V TC-ER (UL Subject 2277 Type WTTC 1,000 V & UL 1277 TC-ER 85% TCWB Shielded Drive Specification)	**Core / conductor construction**	Class K Fine Stranded Bare Copper (14–2 AWG) — Extra-flexible rope-lay plain copper conductors
Primary dielectric / insulation	PVC / Nylon Composite Core Insulation — 1,000 V UL WTTC and 600 V TC-ER rated 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 Type WTTC 1,000 V & UL 1277 TC-ER 85% TCWB Shielded Drive Specification	**Storage & transport temperature**	−40…+80 °C on export wooden/steel cable drum
Outer jacket / sheath protection	Cold & Oil-Resistant PVC Outer Jacket — Exposed-Run (TC-ER) & WTTC approved nacelle tray sheath	**Minimum bending radius**	6 × OD
Intermediate screen / separator / core layer	85% Coverage Tinned Copper Braid Shield — Flexible braided tinned copper screen for pitch & auxiliary drives	**Oil, grease, ozone & UV resistance**	Resistant to wind turbine gearbox oil, hydraulic fluid, ozone and UV weathering per UL Subject 2277 Type WTTC 1,000 V & UL 1277 TC-ER 85% TCWB Shielded Drive Specification
Flame retardancy & smoke/halogen emission	Flame-retardant and environmental performance verified per UL Subject 2277 Type WTTC 1,000 V & UL 1277 TC-ER 85% TCWB Shielded Drive Specification	**RoHS & REACH compliance**	RoHS 2 (2011/65/EU + 2015/863) & REACH SVHC compliant
Standards	UL Subject 2277 Type WTTC 1,000 V & UL 1277 TC-ER 85% TCWB Shielded Drive 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
UL WTTC 1000V Braid-Shielded Tray Construction Schedule (−40…+90 °C) 3 sizes						
☐ **UL WTTC 1000V Braid-Shielded Tray 4G16 / 3×16+3G**	**4G16 mm² (or 3×6 AWG + 3G10 AWG)**	**IEC 60228 Class 5 / Class K Cu**	**21.8**	**790**	**9.5**	**130**
☐ **UL WTTC 1000V Braid-Shielded Tray 4G50 / 3×50+3G**	**4G50 mm² (or 3×1 AWG + 3G6 AWG)**	**IEC 60228 Class 5 / Class K Cu**	**31.4**	**2,140**	**22.5**	**190**
☐ **UL WTTC 1000V Braid-Shielded Tray 3×150+3G25 VFD**	**3×150 + 3G25 mm² (or 3×350 kcmil)**	**IEC 60228 Class 5 / Class K Cu**	**47.2**	**5,480**	**58.0**	**285**

– Custom conductor cross-sections, core counts, pre-lugged tower kits and drum lengths available per UL Subject 2277 Type WTTC 1,000 V & UL 1277 TC-ER 85% TCWB Shielded Drive Specification.

Electrical & thermal parameters

3 sizes

Configuration	Max. DC R_{20} Ω/km	Rating / Impedance	Operating temp.
4G16 mm² (or 3×6 AWG + 3G10 AWG)	**1.15**	**1,000 V WTTC / 600 V TC-ER (98 A VFD)**	**−40…+90 °C**
4G50 mm² (or 3×1 AWG + 3G6 AWG)	**0.39**	**1,000 V WTTC / 600 V TC-ER (195 A VFD)**	**−40…+90 °C**
3×150 + 3G25 mm² (or 3×350 kcmil)	**0.13**	**1,000 V WTTC / 600 V TC-ER (395 A VFD)**	**−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/ul-wttc-1000v-braid-shielded-wind-tray-cable

Typical values for this cable type, based on UL Subject 2277 Type WTTC 1,000 V & UL 1277 TC-ER 85% TCWB Shielded Drive Specification. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.