VFD & motor drive cables

29503 600/1000V TC-ER WTTC

10 AWG Foil & Braid VFD Motor Cable

UL 1277 TC-ER / UL 2277 WTTC · 600/1,000 V · −40...+90 °C · Min. bend 10 × OD

UL 1277 TC-ER / UL 2277 WTTC | 600 V TC-ER / 1,000 V WTTC



Application

UL 1277 TC-ER 600 V / UL 2277 WTTC 1,000 V (-40 to +90 °C) 4G10 AWG (105×30) tinned copper XLPE foil and 85% braid shielded 300% ground VFD motor supply cable.

Typical uses: Industrial automation & control cabinets, Inverter-fed motor drive systems, Process instrumentation & oil/gas skids, Machine tools & robotic cells, Data centers, stadiums & broadcast facilities

Construction





Cross-section, not to scale

1	**4 Conductors (10 AWG Stranded Tinned Copper)**	105×30 AWG High-Flex Tinned Copper (3 Phase + 1 Full GND)
2	**Heavy-Wall Cross-Linked Polyethylene (XLPE)**	1.14mm Corona-Resistant XLPE (3 Black Numbered + 1 G/Y)
3	**100% Foil + 85% Tinned Copper Braid + Drain**	Triple-Drain + Al/Mylar Tape + 85% Tinned Cu Braid
4	**Industrial Black TPE/PVC Outer Jacket**	UL 1277 TC-ER / 1000V WTTC Oil & Sunlight Resistant (17.27 mm)

Technical data

Typical values

Nominal / reference voltage	600 V TC-ER / 1,000 V WTTC	**Conductor & core insulation**	105×30 AWG High-Flex Tinned Copper (3 Phase + 1 Full GND) · 1.14mm Corona-Resistant XLPE (3 Black Numbered + 1 G/Y)
Routine dielectric / continuity test	100% factory drum spark & continuity verified	**Operating temperature range**	−40…+90 °C
Short-circuit / peak thermal limit	+160 °C to +250 °C (5 s conductor thermal limit)	**Flame & fire performance**	UL 1277 TC-ER / UL 2277 WTTC
Minimum bending radius	10 × OD	**Screening / armour architecture**	Triple-Drain + Al/Mylar Tape + 85% Tinned Cu Braid
Outer sheath material & colour	UL 1277 TC-ER / 1000V WTTC Oil & Sunlight Resistant (17.27 mm)	**Standards**	UL 1277 TC-ER / UL 2277 WTTC / CSA C22.2 No. 230 CIC-TC / NFPA 79 / IEEE 1202

Sizes

3 standard constructions

Tick the sizes you need and send this page to info@tebaoflex.com or WhatsApp +86 185 9591 3361.

Part designation	Configuration	Conductor & shield	Insulation / wall	Outer sheath	Outer diameter mm	Min. bend radius mm	Max. conductor resistance @ 20 °C Ω/km	Copper weight kg/km	Cable weight kg/km	Key electrical / optica
29503 600/1000V TC-ER WTTC 3 sizes										
☐ 29503 4G10 AWG (3×10 AWG + 1×10 AWG G/Y)	4 × 10 AWG (5.26 mm² · 105×30 AWG)	105×30 AWG Tinned Cu + XLPE + Foil/85% TCWB	1.14mm Corona-Resistant XLPE (3 Black Numbered + 1 G/Y)	Industrial PVC	17.3	173	3.41	268.0	452	600 V TC-ER / 1,000 V
☐ 29502 4G12 AWG (3×12 AWG + 1×12 AWG G/Y)	4 × 12 AWG (3.31 mm² · 65×30 AWG)	65×30 AWG Tinned Cu + XLPE + Foil/85% TCWB	1.14mm Corona-Resistant XLPE (3 Black Numbered + 1 G/Y)	Industrial PVC	15.0	150	5.41	176.0	326	600 V TC-ER / 1,000 V
☐ 29504 4G8 AWG (3×8 AWG + 1×8 AWG G/Y)	4 × 8 AWG (8.37 mm² · 133×29 AWG)	133×29 AWG Tinned Cu + XLPE + Foil/85% TCWB	1.14mm Corona-Resistant XLPE (3 Black Numbered + 1 G/Y)	Industrial PVC	21.8	218	2.14	412.0	715	600 V TC-ER / 1,000 V

– Dimensions and weights are nominal manufacturing targets subject to standard production tolerances.

Standards and approvals

- ✓ UL 1277 TC-ER / UL 2277 WTTC 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/29503-600-1000v-tc-er-wttc-10-awg-300-percent-ground-shielded-vfd-cable**

Typical values for this cable type, based on Reference specification per UL 1277 TC-ER / UL 2277 WTTC (29503 600/1000V TC-ER WTTC). Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.