VFD & motor drive cables

29504T Series 600/1000V TC-ER-LS LSZH

Shielded VFD Cable



UL 1277 TC-ER-LS / UL 1685 Limited Smoke · 600/1,000 V · −40…+90 °C · Min. bend 10 × OD

UL 1277 TC-ER-LS / UL 1685 Limited Smoke | 600 V TC-ER-LS / 1,000 V

Application

UL 1277 Type TC-ER-LS 600/1,000 V (-40 to +90 °C) 4G8 AWG (7×19×29) XLPE insulated, foil and 85% braid shielded halogen-free LSZH VFD motor cable for tunnels and cleanrooms.

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	**4×8 AWG (7×19×29) Tinned Copper (3P+G)**	7×19×29 AWG (133 Strands) Tinned Copper (3 Phase + 1 Full GND)
2	**Heavy-Wall Cross-Linked Polyethylene (XLPE)**	1.32mm Corona-Resistant XLPE (3 Black Numbered + 1 G/Y)
3	**Halogen-Free Tape + 100% Foil + 85% TC Braid**	Halogen-Free Binder + Foil + 85% Tinned Cu Braid + Drains
4	**Black Thermoset Low-Smoke Zero-Halogen Jacket**	UL 1277 TC-ER-LS Halogen-Free Flame-Retardant Sheath (23.62 mm OD)

Technical data

Typical values

Nominal / reference voltage	600 V TC-ER-LS / 1,000 V	Conductor & core insulation	7×19×29 AWG (133 Strands) Tinned Copper (3 Phase + 1 Full GND) · 1.32mm 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-LS / UL 1685 Limited Smoke
Minimum bending radius	10 × OD	Screening / armour architecture	Halogen-Free Binder + Foil + 85% Tinned Cu Braid + Drains
Outer sheath material & colour	UL 1277 TC-ER-LS Halogen-Free Flame-Retardant Sheath (23.62 mm OD)	Standards	UL 1277 TC-ER-LS / UL 1685 FT4 Limited Smoke / IEC 60754-1 & -2 / IEC 61034-2 / NFPA 79

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 elec
29504T Series 600/1000V TC-ER-LS LSZH 3 sizes										
☐ 29504T 4G8 AWG (3×8+1×8 G/Y) TC-ER-LS	4 × 8 AWG (8.37 mm² · 7×19×29 AWG)	7×19×29 AWG Tinned Cu + 1.32mm XLPE + Foil/85% TCWB + LSZH	1.32mm Corona-Resistant XLPE (3 Black Numbered + 1 G/Y)	LSZH Jacket	23.6	236	2.14	425.0	765	600/1,00
☐ 29502T 4G12 AWG (3×12+1×12 G/Y) TC-ER-LS	4 × 12 AWG (3.31 mm² · 65×30 AWG)	65×30 AWG Tinned Cu + XLPE + Foil/85% TCWB + LSZH	1.32mm Corona-Resistant XLPE (3 Black Numbered + 1 G/Y)	LSZH Jacket	15.0	150	5.41	176.0	338	600/1,00
☐ 29503T 4G10 AWG (3×10+1×10 G/Y) TC-ER-LS	4 × 10 AWG (5.26 mm² · 105×30 AWG)	105×30 AWG Tinned Cu + XLPE + Foil/85% TCWB + LSZH	1.32mm Corona-Resistant XLPE (3 Black Numbered + 1 G/Y)	LSZH Jacket	17.3	173	3.41	268.0	468	600/1,00

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

Standards and approvals

- ✓ UL 1277 TC-ER-LS / UL 1685 Limited Smoke 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/29504t-series-600-1000v-tc-er-ls-lszh-foil-braid-shielded-vfd-cable**

Typical values for this cable type, based on Reference specification per UL 1277 TC-ER-LS / UL 1685 Limited Smoke (29504T Series 600/1000V TC-ER-LS LSZH). Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.