VFD & motor drive cables

29541 Series 2000V UL 1277 TC-ER

Thick-Wall XLPE VFD Cable



UL 1277 TC-ER 2000V / UL 44 RHW-2 · 600/2,000 V · −40...+90 °C · Min. bend 12 × OD

UL 1277 TC-ER 2000V / UL 44 RHW-2 | 2,000 V

Application

UL 1277 Type TC-ER 2,000 V & UL 44 RHW-2 (-40 to +90 °C wet/dry) 4G4 AWG thick-wall 2.03 mm XLPE insulated, foil and 85% braid shielded VFD motor feeder for long inverter leads.

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	4×4 AWG (7×19×25) Tinned Copper (3P+G)	7×19×25 AWG (133 Strands) Tinned Copper (3 Phase + 1 Full GND)
2	2000V Grade Thick-Wall RHW-2 XLPE Insulation	2.03mm Corona-Resistant XLPE for High dV/dt Spikes
3	100% Foil + 85% Tinned Copper Braid + #4 Drain	4 AWG Tinned Cu Drain + Al/Mylar Foil + 85% Tinned Cu Braid
4	Heavy-Duty Black Sunlight-Resistant PVC Jacket	UL 1277 Type TC-ER 2000V Oil & Wet Rated PVC Sheath (30.50 mm OD)

Technical data

Typical values

Nominal / reference voltage	2,000 V	Conductor & core insulation	7×19×25 AWG (133 Strands) Tinned Copper (3 Phase + 1 Full GND) · 2.03mm Corona-Resistant XLPE for High dV/dt Spikes
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 2000V / UL 44 RHW-2
Minimum bending radius	12 × OD	Screening / armour architecture	4 AWG Tinned Cu Drain + Al/Mylar Foil + 85% Tinned Cu Braid
Outer sheath material & colour	UL 1277 Type TC-ER 2000V Oil & Wet Rated PVC Sheath (30.50 mm OD)	Standards	UL 1277 TC-ER 2000V / UL 44 RHW-2 / CSA C22.2 No. 230 / IEEE 1202 FT4 / 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 electrical /
29541 Series 2000V UL 1277 TC-ER 3 sizes										
☐ 29541 4G4 AWG (3×4 AWG + 1×4 AWG G/Y) 2000V	4 × 4 AWG (21.2 mm² · 7×19×25 AWG)	7×19×25 AWG Tinned Cu + 2.03mm 2kV XLPE + Foil/TCWB	2.03mm Corona-Resistant XLPE for High dV/dt Spikes	Industrial PVC	30.5	366	0.85	1,120.0	1,580	2,000 V UL 1277
☐ 29540 4G6 AWG (3×6 AWG + 1×6 AWG G/Y) 2000V	4 × 6 AWG (13.3 mm² · 133×27 AWG)	133×27 AWG Tinned Cu + 2kV RHW-2 XLPE + Foil/TCWB	2.03mm Corona-Resistant XLPE for High dV/dt Spikes	Industrial PVC	25.9	311	1.35	725.0	1,085	2,000 V UL 1277
☐ 29542 4G2 AWG (3×2 AWG + 1×2 AWG G/Y) 2000V	4 × 2 AWG (33.6 mm² · 7×19×23 AWG)	7×19×23 AWG Tinned Cu + 2kV RHW-2 XLPE + Foil/TCWB	2.03mm Corona-Resistant XLPE for High dV/dt Spikes	Industrial PVC	34.8	418	0.54	1,690.0	2,240	2,000 V UL 1277

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

Standards and approvals

- ✓ UL 1277 TC-ER 2000V / UL 44 RHW-2 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/29541-series-2000v-ul-1277-tc-er-300-percent-ground-xlpe-shielded-vfd-cable**

Typical values for this cable type, based on Reference specification per UL 1277 TC-ER 2000V / UL 44 RHW-2 (29541 Series 2000V UL 1277 TC-ER). Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.