VFD & motor drive cables

1229528 600V UL 1277 Type MC

Aluminum Armored VFD Cable

UL 1569 Type MC / UL 1277 TC-ER · 600 V · −40...+90 °C · Min. bend 12 × OD

UL 1569 Type MC / UL 1277 TC-ER | 600 V



Application

UL 1569 Type MC / UL 1277 TC-ER (600 V, -40 to +90 °C) aluminum interlocked armored VFD motor feeder with symmetrical split grounds and dual helical copper tape shield.

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	3 Phase Conductors (1 AWG Stranded Tinned Cu)	3×1 AWG (7×19×22) Tinned Copper Phases
2	XLPE Insulation + 3×6 AWG Symmetrical Grounds	1.45mm XLPE + 3×6 AWG (7×19×27) Bare Cu Grounds
3	Dual Helical Bare Copper Tape Shield (100%+100%)	Two Overlapping Helical Bare Copper Tape Shields
4	Black PVC Inner Jacket + Aluminum Interlocked Armor	Ø30.40 mm PVC Inner Jacket + Helical Aluminum Armor (AIA)
5	Sunlight & Oil Resistant Black PVC Outer Jacket	UL 1569 Type MC / UL 1277 TC-ER PVC Sheath (38.89 mm OD)

Technical data

Typical values

Nominal / reference voltage	600 V	Conductor & core insulation	3×1 AWG (7×19×22) Tinned Copper Phases · 1.45mm XLPE + 3×6 AWG (7×19×27) Bare Cu Grounds
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 1569 Type MC / UL 1277 TC-ER
Minimum bending radius	12 × OD	Screening / armour architecture	Two Overlapping Helical Bare Copper Tape Shields · Ø30.40 mm PVC Inner Jacket + Helical Aluminum Armor (AIA)
Outer sheath material & colour	UL 1569 Type MC / UL 1277 TC-ER PVC Sheath (38.89 mm OD)	Standards	IEC 60228 / UL 1569 / UL 1277 / UL 1685 / CSA C22.2 No. 51 / 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 / optical rating
1229528 600V UL 1277 Type MC 3 sizes										
☐ 1229528 3×1 AWG + 3×6 AWG Sym. GND	3×1 AWG + 3×6 AWG Sym. GND	7×19×22 Tinned Cu + Dual Cu Tape + AIA	1.45mm XLPE + 3×6 AWG (7×19×27) Bare Cu Grounds	Industrial PVC	38.9	467	0.41	1,685.0	2,518	600 V (145 A VFD / Dual Cu Tape + AIA)
☐ 1229527 3×2 AWG + 3×8 AWG Sym. GND	3×2 AWG + 3×8 AWG Sym. GND	7×19×23 Tinned Cu + Dual Cu Tape + AIA	1.45mm XLPE + 3×6 AWG (7×19×27) Bare Cu Grounds	Industrial PVC	35.6	427	0.52	1,310.0	2,045	600 V (130 A VFD / Dual Cu Tape + AIA)
☐ 1229529 3×1/0 AWG + 3×6 AWG Sym. GND	3×1/0 AWG + 3×6 AWG Sym. GND	7×19×21 Tinned Cu + Dual Cu Tape + AIA	1.45mm XLPE + 3×6 AWG (7×19×27) Bare Cu Grounds	Industrial PVC	41.7	500	0.33	2,010.0	2,940	600 V (170 A VFD / Dual Cu Tape + AIA)

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

Standards and approvals

- ✓ UL 1569 Type MC / 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/1229528-600v-ul-1277-type-mc-symmetrical-ground-vfd-cable**

Typical values for this cable type, based on Reference specification per UL 1569 Type MC / UL 1277 TC-ER (1229528 600V UL 1277 Type MC). Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.