Screened power & VFD / motor supply cables

VFD-SLIM 600/1000V TC-ER

VFD-SLIM 600/1000 V TC-ER Reduced-OD VFD Cable

Compact thin-wall XLPE symmetrical TC-ER VFD cable for tight conduits



UL 1277 Type TC-ER | U0/U 600/1000 V · 4 kV AC | EMC Screened

Application

VFD-SLIM 600/1000 V TC-ER cuts overall cable diameter up to 15% with precision-extruded XHHW-2 XLPE insulation, three symmetrical grounds, and dual foil/braid shielding for congested trays and conduits.

Typical uses: Variable frequency drive (VFD) motor bays, Industrial pumps, fans & compressor skids, Process plants, oil & gas & HVAC systems, Heavy manufacturing & plant MCC feeders

Construction





Cross-section, not to scale

1	Conductor	ASTM B172 Class K flexible tinned annealed copper · ASTM B172 Class K / UL 1277
2	Core insulation	Reduced-wall UL 44 XHHW-2 thermoset XLPE · UL 1277 Type TC-ER
3	Core assembly & separator	Concentric cabled assembly with low-friction fleece or polyester binder tape · UL 1277 Type TC-ER
4	EMC metallic screen	100% Al/polyester foil + ≥ 85% tinned copper braid · EMC ≥ 85% / 100% foil
5	Outer sheath	Black slim-profile oil- & UV-resistant PVC/TPE jacket · UL 1685 / FT4 Flame

Technical data

Typical values

Rated voltage U0/U	600/1000 V	**AC test voltage**	4 kV AC / 5 min
Conductor class	ASTM B172 Class K tinned Cu	**EMC screen**	100% Al/polyester foil + ≥ 85% tinned
Insulation resistance	≥ 1,000 MΩ·km at 20 °C	**Temp. range (fixed)**	-40 °C to +90 °C
Temp. range (flexing)	-25 °C to +90 °C	**Short-circuit temp.**	+250 °C (5 s)
Min. bending radius	8 × OD (fixed)	**Flame retardance**	UL 1685 / FT4 Flame
Oil & chemical perf.	UL Oil Res I/II	**Environmental / EMC**	Sunlight Resistant
Outer sheath	Black slim-profile oil- & UV-resistant		

Sizes

12 standard constructions

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

	Cores × AWG/kcmil	Outer Ø ≈ mm	Max. R20 Ω/km	Copper index kg/km	Weight ≈ kg/km	Min. bend R 8×D mm
☐	3×14 AWG + 3×18 AWG	10.4	9.070	109	210	83
☐	3×12 AWG + 3×16 AWG	11.4	5.710	159	288	91
☐	3×10 AWG + 3×14 AWG	12.8	3.590	237	410	102
☐	3×8 AWG + 3×14 AWG	15.9	2.260	331	588	127
☐	3×6 AWG + 3×12 AWG	18.1	1.420	507	862	145
☐	3×4 AWG + 3×12 AWG	21.8	0.892	734	1,248	174
☐	3×2 AWG + 3×10 AWG	26.2	0.561	1,140	1,905	210
☐	3×1/0 AWG + 3×6 AWG	30.6	0.353	1,919	3,065	245
☐	3×2/0 AWG + 3×6 AWG	33.1	0.280	2,308	3,666	265
☐	3×4/0 AWG + 3×4 AWG	40.1	0.176	3,637	5,701	321
☐	3×350 kcmil + 3×2 AWG	49.5	0.107	5,928	9,181	396
☐	3×500 kcmil + 3×2 AWG	56.9	0.075	8,037	12,392	455

- Max. conductor DC resistance R20 at 20 °C per ASTM B172 / B8 (tinned copper).
- Minimum bending radius calculated at 8 × nominal outer diameter (OD). Custom core counts and lengths available on request.

Standards and approvals

- UL 1277 Type TC-ER
- UL 2277 Type WTTC
- CSA C22.2 No. 230
- 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/vfd-slim-600-1000v-tc-er-compact-vfd-cable

Typical values for this cable type, based on UL 1277 Type TC-ER · UL 2277 Type WTTC · CSA C22.2 No. 230. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.