Screened power & VFD / motor supply cables

VFD-THIN 600/1000V TC-ER

VFD-THIN 600/1000 V TC-ER Thin-Wall VFD Cable

Reduced-diameter 600/1000 V TC-ER symmetrical VFD cable for tight glands

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

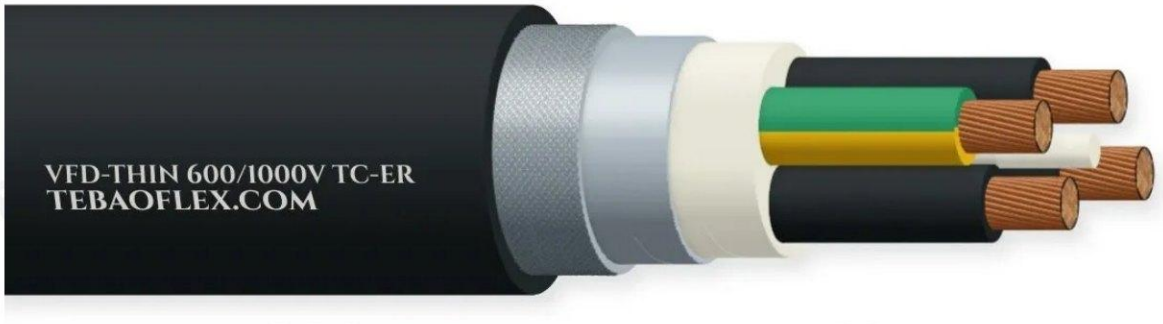


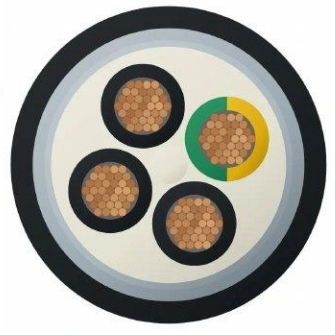
Application

VFD-THIN 600/1000 V TC-ER pairs high-dielectric thin-wall XLPE insulation with bare copper conductors, three symmetrical grounds, and dual EMC screening to save tray space and ease conduit pulling.

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 B8 Class B stranded bare annealed copper · ASTM B8 Class B / UL 44
2	Core insulation	Thin-wall high-dielectric thermoset XLPE (90 °C) · 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% foil + ≥ 85% tinned copper braid shield · EMC ≥ 85% / 100% foil
5	Outer sheath	Black reduced-OD oil- & UV-resistant PVC outer 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 B8 Class B bare Cu	EMC screen	100% foil + ≥ 85% tinned copper braid shield
Insulation resistance	≥ 1,000 MΩ·km at 20 °C	Temp. range (fixed)	-40 °C to +90 °C
Temp. range (flexing)	-20 °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 reduced-OD oil- & UV-resistant PVC		

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	10.2	8.450	108	206	82
☐ 3×12 AWG + 3×16 AWG	11.2	5.310	158	284	90
☐ 3×10 AWG + 3×14 AWG	12.5	3.340	236	404	100
☐ 3×8 AWG + 3×14 AWG	15.6	2.100	331	582	125
☐ 3×6 AWG + 3×12 AWG	17.6	1.320	505	848	141
☐ 3×4 AWG + 3×12 AWG	21.3	0.832	732	1,232	170
☐ 3×2 AWG + 3×10 AWG	25.5	0.523	1,138	1,879	204
☐ 3×1/0 AWG + 3×6 AWG	29.7	0.329	1,917	3,027	238
☐ 3×2/0 AWG + 3×6 AWG	32.1	0.261	2,305	3,620	257
☐ 3×4/0 AWG + 3×4 AWG	38.8	0.164	3,633	5,629	310
☐ 3×350 kcmil + 3×2 AWG	47.9	0.099	5,923	9,073	383
☐ 3×500 kcmil + 3×2 AWG	55.0	0.070	8,032	12,247	440

– Max. conductor DC resistance R20 at 20 °C per ASTM B172 / B8 (bare 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
- UL 44 XHHW-2
- 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-thin-600-1000v-tc-er-space-saving-vfd-cable

Typical values for this cable type, based on UL 1277 Type TC-ER · UL 2277 Type WTTC · UL 44 XHHW-2. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.