Screened power & VFD / motor supply cables

E4BFE 600V TC-ER VFD

E4BFE 600 V TC-ER Copper-Tape Shielded VFD Cable

Industrial 600 V UL 1277 TC-ER XLPE copper-tape VFD power cable

UL 1277 Type TC-ER | **U0/U 600 V · 3.5 kV AC** | **EMC Screened**



Application

E4BFE 600 V TC-ER VFD combines stranded bare copper conductors, 90 °C XLPE insulation, three symmetrical grounds, and overlapping copper tape shielding for rugged stationary factory VFD trays.

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**	600 V thermoset XLPE (XHHW-2) · 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**	Overlapping bare copper tape shield (100% coverage) · EMC ≥ 85% / 100% foil
5	**Outer sheath**	Black UV- & oil-resistant FR-PVC outer jacket · IEEE 1202 / FT4 Flame

Technical data

Typical values

Rated voltage U0/U	600 V	AC test voltage	3.5 kV AC / 5 min
Conductor class	ASTM B8 Class B bare Cu	EMC screen	Overlapping bare copper tape shield (100%
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	12 × OD (fixed)	Flame retardance	IEEE 1202 / FT4 Flame
Oil & chemical perf.	UL Oil Res I	Environmental / EMC	Direct Burial & Sun Res
Outer sheath	Black UV- & oil-resistant FR-PVC outer jacket		

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 12×D mm
☐ 3×14 AWG + 3×18 AWG	12.1	8.450	118	246	145
☐ 3×12 AWG + 3×16 AWG	13.1	5.310	169	328	157
☐ 3×10 AWG + 3×14 AWG	14.4	3.340	248	452	173
☐ 3×8 AWG + 3×14 AWG	17.7	2.100	343	643	212
☐ 3×6 AWG + 3×12 AWG	19.8	1.320	519	919	238
☐ 3×4 AWG + 3×12 AWG	23.4	0.832	748	1,313	281
☐ 3×2 AWG + 3×10 AWG	27.8	0.523	1,156	1,982	334
☐ 3×1/0 AWG + 3×6 AWG	32.0	0.329	1,936	3,144	384
☐ 3×2/0 AWG + 3×6 AWG	34.5	0.261	2,326	3,751	414
☐ 3×4/0 AWG + 3×4 AWG	41.1	0.164	3,656	5,778	493
☐ 3×350 kcmil + 3×2 AWG	50.3	0.099	5,950	9,261	604
☐ 3×500 kcmil + 3×2 AWG	57.5	0.070	8,062	12,468	690

- Max. conductor DC resistance R20 at 20 °C per ASTM B172 / B8 (bare copper).
- Minimum bending radius calculated at 12 × nominal outer diameter (OD). Custom core counts and lengths available on request.

Standards and approvals

- UL 1277 Type TC-ER
- UL 44 XHHW-2
- ICEA S-95-658
- 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/e4bfe-600v-tc-er-copper-tape-vfd-cable

Typical values for this cable type, based on UL 1277 Type TC-ER · UL 44 XHHW-2 · ICEA S-95-658. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.