Screened power & VFD / motor supply cables

SPEC 45441 600/1000V VFD Pair

SPEC 45441 600/1000 V VFD + Shielded Pair Cable

TC-ER 600/1000 V VFD motor power cable with integrated brake/PTC pair

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

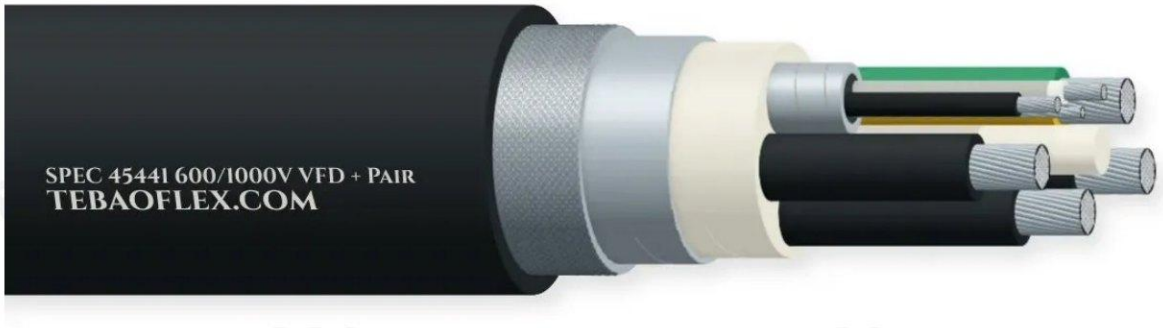


Application

SPEC 45441 600/1000 V VFD Pair combines three XLPE phases, ground, and an individually foil-shielded 16 AWG brake/temperature-sensor pair under overall dual EMC screening and a black oil-resistant jacket.

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	UL 44 XHHW-2 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	Individually shielded brake/PTC pair + overall foil & ≥ 85% tinned Cu braid · EMC ≥ 85% / 100% foil
5	Outer sheath	Black oil- & UV-resistant flame-retardant PVC/TPE jacket · IEEE 1202 / 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**	Individually shielded brake/PTC pair +
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	10 × OD (fixed)	**Flame retardance**	IEEE 1202 / FT4 Flame
Oil & chemical perf.	UL Oil Res I/II	**Environmental / EMC**	Sunlight Resistant
Outer sheath	Black oil- & UV-resistant flame-retardant		

Sizes

8 standard constructions

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

Power + Brake AWG	Outer Ø ≈ mm	Max. R20 Ω/km	Copper index kg/km	Weight ≈ kg/km	Min. bend R 10×D mm
☐ 4×14 AWG + 2×16 AWG	14.8	9.070	146	329	148
☐ 4×12 AWG + 2×16 AWG	16.1	5.710	195	418	161
☐ 4×10 AWG + 2×16 AWG	17.6	3.590	271	548	176
☐ 4×8 AWG + 2×16 AWG	21.4	2.260	397	806	214
☐ 4×6 AWG + 2×16 AWG	23.9	1.420	585	1,120	239
☐ 4×4 AWG + 2×16 AWG	27.8	0.892	886	1,636	278
☐ 4×2 AWG + 2×14 AWG	33.0	0.561	1,370	2,461	330
☐ 4×1/0 AWG + 2×14 AWG	37.9	0.353	2,114	3,640	379

- Max. conductor DC resistance R20 at 20 °C per ASTM B172 / B8 (tinned copper).
- Minimum bending radius calculated at 10 × 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 AWM I/II A/B FT4
- 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/spec-45441-600-1000v-vfd-signal-pair-cable

Typical values for this cable type, based on UL 1277 Type TC-ER · UL 2277 Type WTTC · CSA AWM I/II A/B FT4. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.