Screened power & VFD / motor supply cables

SPEC 4580 2000V TC-ER

SPEC 4580 2000 V TC-ER Symmetrical VFD Cable

2 kV VW-1 FR-XLPE 5-mil copper tape TC-ER VFD cable



UL 1277 TC-ER · IEEE 1202 | 2 kV FR-XLPE (VW-1 · ICEA M4) | 5-mil Cu Tape · Lead-Free PVC

Application

2,000 V UL 1277 Type TC-ER VFD tray cable with Class B bare copper conductors, VW-1 flame-retardant XLPE insulation (ICEA Method 4 black numbered), three bare copper grounds, 5-mil ≥ 50%-lap copper tape, and lead-free PVC jacket.

Typical uses: Heavy industrial VFD drive rooms, Pulp, paper & steel mills, Chemical & petrochemical refineries, Water & power plant auxiliaries, NEC Class I Div 2 tray systems

Construction





Cross-section, not to scale

1	**Conductor**	Class B stranded bare annealed copper · ASTM B3 / B8 Class B
2	**Phase insulation**	2 kV flame-retardant XLPE (VW-1, ICEA Method 4 black numbered) · UL 44 VW-1 + 3 × bare Cu grounds
3	**Fillers & core wrap**	Polypropylene fillers & flame-retardant core wrap · Symmetrical 3+3 round core assembly
4	**5-mil copper tape shield**	5-mil helically applied annealed bare copper tape (≥ 50% overlap) · Continuous 100% double-lap EMI shield
5	**Outer jacket**	Black lead-free sunlight-resistant direct-burial PVC · UL 1277 Type TC-ER · RoHS / IEEE 1202

Technical data

Typical values

Rated voltage	2,000 V (2 kV) AC	**Conductor class**	ASTM B8 Class B bare copper
Phase identification	ICEA Method 4 (black numbered)	**EMC shield**	5-mil bare Cu tape (≥ 50% overlap)
Max. conductor temp.	+90 °C wet or dry (FR-XLPE)	**Ambient temp. (fixed)**	−40 °C to +90 °C
Min. bending radius	12 × OD (Cu-tape shielded)	**Core / tray flame test**	VW-1 cores · IEEE 1202 / FT4 tray
Jacket formulation	Lead-free sunlight & direct-burial PVC	**Hazardous locations**	NEC Class I Div 2

Sizes

15 standard constructions

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

	Phase + 3× Ground (AWG)	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	15.6	8.450	129	336	187
☐	3×12 AWG + 3×16 AWG	16.6	5.310	179	422	199
☐	3×10 AWG + 3×14 AWG	17.9	3.340	258	553	215
☐	3×8 AWG + 3×14 AWG	20.7	2.100	352	749	248
☐	3×6 AWG + 3×12 AWG	22.8	1.320	527	1,033	274
☐	3×4 AWG + 3×12 AWG	26.5	0.832	756	1,451	318
☐	3×2 AWG + 3×10 AWG	30.9	0.523	1,164	2,142	371
☐	3×1 AWG + 3×8 AWG	32.9	0.415	1,497	2,651	395
☐	3×1/0 AWG + 3×6 AWG	35.1	0.329	1,944	3,317	421
☐	3×2/0 AWG + 3×6 AWG	37.6	0.261	2,333	3,934	451
☐	3×3/0 AWG + 3×4 AWG	41.1	0.207	3,044	5,021	493
☐	3×4/0 AWG + 3×4 AWG	44.3	0.164	3,664	5,993	532
☐	3×250 kcmil + 3×4 AWG	48.4	0.139	4,212	6,952	581
☐	3×350 kcmil + 3×2 AWG	54.1	0.099	5,959	9,556	649
☐	3×500 kcmil + 3×2 AWG	61.3	0.070	8,070	12,793	736

- Conductor max. DC resistance R20 follows ASTM B8 Class B bare annealed copper at 20 °C.
- Individual phase cores pass UL VW-1 vertical wire flame testing in addition to IEEE 1202 / FT4 cable tray flame testing.

Standards and approvals

- ✓ UL 1277 Type TC-ER (2,000 V) · UL 44 RHH/RHW-2 VW-1
- ✓ ICEA S-95-658 · ICEA Method 4 Identification
- ✓ IEEE 1202 / FT4 · Lead-Free RoHS · Direct Burial

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-4580-2000v-tc-er-symmetrical-vfd-cable

Typical values for this cable type, based on UL 1277 Type TC-ER · UL 44 RHH/RHW-2 · IEEE 1202 · ICEA M4. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.