37-600VFD

TC-ER VFD POWER CABLE

PVC Jacket • Three Conductor • 90°C • 600V

POWER CONDUCTORS (X3)
Soft annealed stranded bare copper per ASTM B3, B496

INSULATION
Low dielectric constant XLPE meeting XHHW-2 per UL 44

JACKET
Flame retardant, moisture and sunlight resistant Polyvinyl Chloride (PVC) per UL 1277. Colored black.

SYMMETRICAL GROUND CONDUCTORS (X3)
Three symmetrically placed stranded bare copper conductors in direct contact with the shield.

METALLIC SHIELD
Helically applied bare copper tape for provide 100% coverage.

RATINGS & APPROVALS

- UL Listed as Type TC-ER 600V
- 90°C Wet/Dry Temperature Rating
- FT-4/ IEEE 1202 Flame Rating
- Sunlight Resistant
- For Direct Burial

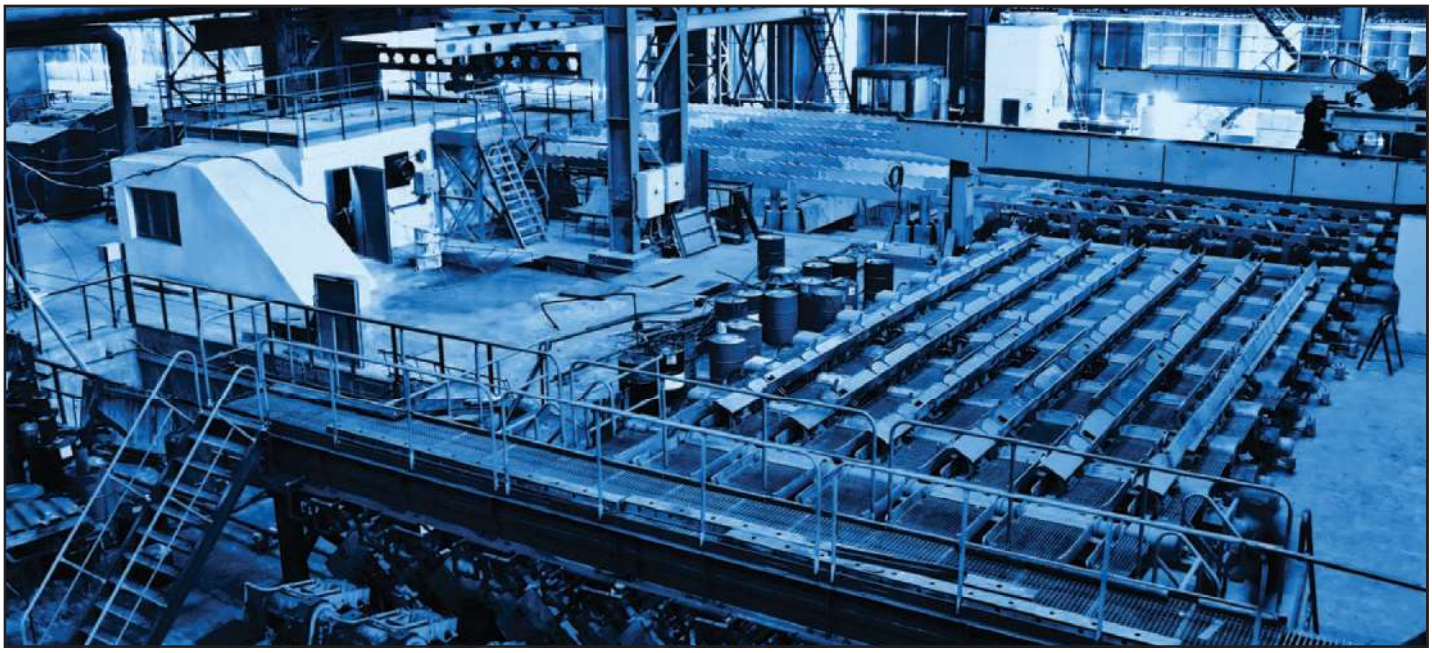
APPLICATION

TC-ER VFD cable is used to supply power to motors, or for connection to other power devices in industrial settings. Primary installations include cable trays, raceways, and outdoor locations supported by a messenger wire. Type TC-ER VFD is Listed for direct burial or in underground ducts and for use in Class 1, Division 2 hazardous locations and Class 1 control circuits. This cable may be used in wet or dry locations at temperatures not to exceed 90°C. The cable is specifically engineered for use in variable frequency AC motor drive (VFD) applications.

FEATURES

- Specially engineered cable design produces a longer cable life in VFD applications.
- Overall shield provides 100% coverage containing VFD EMI emissions.
- Symmetrical ground conductors reduce induced voltage imbalances and carry common mode noise back to the drive.
- Meets crush and impact requirements for Type MC
- AmerCable's specially formulated XLPE insulation material has a lower dielectric constant which withstands reflected voltages. This allows for longer output cable distances and minimizes the effect of high frequency noise induced into the plant ground system.
- Permitted for Exposed Run ("ER" use in accordance with the NEC 336.10(7).
- Permitted for use in Class I, Division 2 and Zone 2 industrial hazardous locations per the NEC.
- Gas and vapor tight – impervious to water and air.
- Bend radius 12X O.D.
- Color code per ICEA S-58-679 Method 4

37-600VFD • FLEXIBLE TC-ER VFD • 600 VOLTS

Conductor Size	Wire Count	Part No. 37-600	Conductor Diameter	Insulation Thickness	Insulation Diameter	Ground Size	Jacket Thickness	Jacket Diameter	Weight	NEC Ampacities In Free Air 90°C	In Free Air 75C°	In Free Air 90°C	In Free Air 75C°	In Free Air 90°C	In Free Air 75C°
14	7	-508VFDCT	0.073	0.030	0.145	18	0.060	0.460	162	15	13	15	13	15	13
12	7	-516VFDCT	0.092	0.030	0.165	16	0.060	0.495	208	20	18	20	18	20	18
10	7	-308VFDCT	0.112	0.030	0.180	14	0.060	0.530	269	30	27	30	27	30	27
8	7	-309VFD	0.141	0.045	0.242	14	0.060	0.665	384	65	58	55	49	48	43
6	7	-310VFD	0.169	0.045	0.269	12	0.060	0.725	522	87	77	75	67	65	58
4	7	-312VFD	0.213	0.045	0.312	12	0.060	0.820	719	114	101	95	84	89	79
2	7	-314VFD	0.268	0.045	0.369	10	0.080	0.980	1090	152	135	130	115	119	106
1	18	-315VFD	0.299	0.055	0.416	10	0.080	1.085	1321	177	157	150	133	137	121
1/0	18	-316VFD	0.336	0.055	0.451	10	0.080	1.160	1569	205	182	170	151	163	145
2/0	19	-317VFD	0.379	0.055	0.497	10	0.080	1.255	1904	237	210	195	173	186	165
3/0	18	-318VFD	0.423	0.055	0.540	8	0.080	1.355	2381	274	243	225	200	214	190
4/0	18	-319VFD	0.475	0.055	0.595	8	0.080	1.470	2847	316	280	260	231	253	224
250	36	-330VFD	0.520	0.065	0.667	6	0.080	1.630	3479	351	311	290	255	276	245
350	36	-331VFD	0.616	0.065	0.757	6	0.110	1.880	4662	430	381	350	310	345	306
500	36	-333VFD	0.736	0.065	0.880	6	0.110	2.145	6402	531	471	430	381	427	379
750	61	-334VFD	0.908	0.080	1.090	4	0.110	2.600	9447	671	595	535	474	529	469

- Cable diameters are subject to a +/- 5% manufacturing tolerance
- Ampacity In Free Air: Based on 90°C conductor temperature and 30°C ambient temperature per 2014 NEC Table B.310.15(B)(2)(3)
- Ampacity In Cable Tray: Based on 90°C conductor temperature and 30°C ambient temperature per 2014 NEC Table 310.15(B)(16)
- Ampacity In Conduit: Based on 90°C conductor temperature and 30°C ambient temperature per 2014 NEC Table B.310.15(B)(2)(1)