

INDUSTRIAL VFD CABLES



APPROVALS:



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APPLICATIONS: Designed to reliably carry power for Variable Frequency AC drive systems, Lake Cable's VFD Cable can effectively support the high power levels of pulse-width modulated (PWM) signals. This includes handling high voltage spikes and eliminating potential damage to the cable, motors, bearings, drives and related equipment.

SPECIFICATIONS: Durable, industrial-grade XLPE insulations provide low capacitance for extended motor life, reduced likelihood of corona discharge, reduced magnitude of standing waves and increased efficiency of power transfer. Robust grounds and shielding systems minimize radiated and conducted noise that can disrupt plant control and instrumentation systems. Industrial-grade PVC jackets provide sunlight resistance. A UL TC-ER rating allows cable routing outside of the conduit for easier and less expensive installations.

STANDARDS:

- Suitable for Class I Division 2 Hazardous Locations
- UL Listed as Type TC-ER per UL 1277 Tray Cables
- UL Listed as Flexible Motor Cables per UL Standard 2277 is available with K Strand constructions
- UL Approved for Sunlight Resistant and Direct Burial applications
- Cable meets IEEE 1202 (FT-4)
- All materials used in the manufacture of this cable are RoHS II and REACH Compliant
- All Lake Cable products are proudly made in the USA

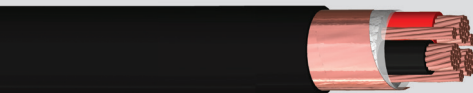
CLASSIC SYMMETRICAL VFD CABLE

APPLICATION:

Designed specifically for variable frequency AC motor drives. UL 1277 Listed Type TC-ER and UL Standard 2277 for Flexible Motor Supply. UL VW-1. UL Approved for Direct Burial and Sunlight Resistant Applications.

- (3) Stranded Tinned or Bare Copper Circuit Conductors with XLPE Insulation
- (3) Symmetrical Bare Copper (BC) Grounds
- Helically Applied Copper Tape Shield (100% Coverage)
- Black Sunlight Resistant PVC Jacket
- Available 600V - 2KV Construction

Also Available in Thermoplastic or Thermoset CPE or LSZH Jacket



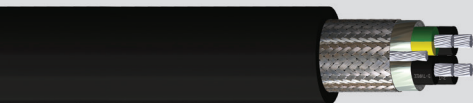
FOIL/BRAID VFD WITH FULL-SIZE INSULATED GROUND

APPLICATION:

Designed specifically for variable frequency AC motor drives. UL 1277 Listed Type TC-ER and UL Standard 2277 for Flexible Motor Supply. UL VW-1. UL Approved for Direct Burial and Sunlight Resistant Applications.

- (3) Stranded Tinned or Bare Copper Conductors with XLPE Insulation
- (1) Full-sized Insulated Ground (Same AWG as Conductors)
- Overall foil shield + 85% TC Braid plus Full-Size TC Drain Wire
- Black Sunlight Resistant PVC Jacket
- Available 600V - 2KV Construction

Also Available in Thermoplastic or Thermoset CPE or LSZH Jacket



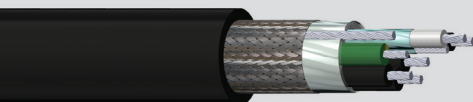
FOIL BRAID VFD CABLE WITH SIGNAL PAIR

APPLICATION:

Designed specifically for variable frequency AC motor drives. UL Listed Type TC-ER and UL Standard 2277 for Flexible Motor Supply. UL VW-1. UL Approved for Direct Burial and Sunlight Resistant Applications.

- (3) Stranded Tinned or Bare Copper Conductors with XLPE Insulation
- (1) Full-sized Insulated Ground (Same AWG as Conductors)
- Overall Foil Shield + 85% TC braid plus Full-Size TC Drain Wire
- (1) 16 AWG Shielded with Drain Wire Signal Pair for Brake
- Black Sunlight Resistant PVC Jacket
- Available 600V - 2KV Construction

Also Available in Thermoplastic or Thermoset CPE or LSZH Jacket



INDUSTRIAL VFD CABLE

Part Number	AWG/Strand	Ground Size	Nominal OD	Weight (lbs)
VFDX123SCU	12 (65)	16	.432"	185
VFDX103SCU	10 (105)	14	.486"	242
VFDX83SCU	8 (168)	14	.660"	397
VFDX63SCU	6 (266)	12	.744"	544
VFDX43SCU	4 (413)	12	.895"	765
VFDX23SCU	2 (665)	10	1.027"	1126
VFDX1/03SCU	1/0 (1064)	10	1.240"	1596
VFDX2/03SCU	2/0 (1330)	10	1.334"	1915
VFDX4/03SCU	4/0 (2109)	8	1.581"	2852

STANDARDS:

- Cable is suitable for use in Class I Division 2 hazardous locations
- UL Listed as Type TC-ER per UL 1277 Tray Cables
- UL listed as Flexible Motor Supply per UL Standard 2277 for Type VFD
- UL approved for Direct Burial and Sunlight Resistant applications
- Individual conductors pass UL VW-1 flame test, rated XHHW-2/VW-1
- Cable meets UL 1581 & 1202 (FT-4) 70,000 BTU/HR & ICEA T-29-520 210,000 BTU/HR requirements
- Meets ICEA S-73-532, where applicable
- All materials used in the manufacture of this cable are RoHS II & REACH compliant
- Made in the USA

DESCRIPTION: 14 AWG – 4/0, 3 conductor K strand bare copper with XLPE insulation, (3) uninsulated bare copper grounds, a helically-applied bare copper tape shield with an overall PVC jacket. 600V control tray cable UL TC-ER also approved for 1KV VFD Flexible Motor Supply applications. Approved for use in DIR BUR SUN RES 90°C Dry/Wet applications.

CONDUCTOR:

AWG Size & Stranding: 14 AWG – 4/0 Class K Stranding
Material: Annealed Bare Copper
Conductor Count: 3 Conductors

INSULATION:

Material: Cross-linked Polyethylene
Wall Thickness: Per UL Standard 44
Color Code: Method 1, Table E-2

ASSEMBLY:

Lay Length: Per UL Standard 1277
Fillers: Non-Hygroscopic Polypropylene - As required for a circular cross-section
Grounds: (3) Uninsulated Bare Copper Grounds Class K Stranding, See table I for sizes
Shield: 0.005" Helical Bare Copper Tape - 20% Minimum Overlap
Drain Wire: N/A

JACKET:

Material: Polyvinylchloride
Wall Thickness: Per UL Standard 1277
Diameter: See Table I
Color: Black
Ripcord: Yes
Cold Bend Rating: -40°C
Weight: See Table I

MARKING:

Type: Cable permanently identified via surface inkjet print
Legend: LAKE CABLE E208309 (# AWG) 3C (UL) TC-ER XHHW-2/VW-1 UNINSULATED GROUNDS 600V 90°C DRY/WET BARE COPPER TAPE SHIELD PVC JACKET SUN RES DIR BUR FT4 OR VFD (UL) FLEXIBLE MOTOR SUPPLY CABLE XLPE 1KV 90°C DRY/WET "ROHS II" MADE IN USA



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