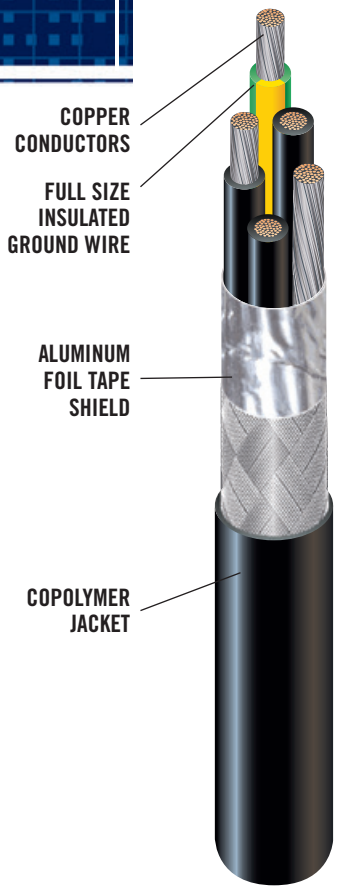
VARIABLE FREQUENCY DRIVE (VFD)

600 V FLEXIBLE TRAY CABLE (UL) TYPE TC-ER



1000 Volt Flexible Motor Supply

600 Volt Tray Cable

Copper Conductors

Rated 90°C Wet Or Dry

Full Size Insulated Ground Wire

Double Sided Aluminum Foil Tape Shield

Full Size Drain Wire

APPLICATIONS

Multi-conductor shielded cable approved for direct burial, free air or raceways, in wet or dry locations, sunlight resistant, -40°C UL cold bend, Oil I & II, Class Div. 1 & 2, rated 90°C wet or dry, UL 1000 volts flexible motor supply cable.

INDUSTRY APPROVALS

- UL 1277 - 600 Volt RMS Type TC-ER Unlisted Singles
- UL 2277 - 1000 Volt RMS Flexible Motor Supply Cable; WTTC
- UL 44
- UL 1581
- ICEA S-73-532/NEMA WC-57
- ICEA S-95-658/NEMA WC-70
- NEC® Article 336 - ER
- Permitted for use in Class 1 Division 2 for hazardous areas
- Oil Res. I & II
- -40°C UL Cold Bend
- Flame Tests: UL1277, UL 1685, UL 1581 VW-1, IEEE 1202 c(UL)

CONSTRUCTION

(3) Stranded tinned copper circuit conductors plus (1) full size insulated ground wire (4/C cable) plus double sided aluminum foil tape shield plus (1) full size drain wire under shield tape plus tinned copper braid (85%) over shield tape jacket

- **Circuit Conductors:**
  Size per table, XLPE insulation, black with printed numbers
- **Ground Wire:**
  Same size as circuit conductors PVC insulation - green with yellow stripe
- **Drain Wire:**
  Same size as circuit conductors, number size and strand per table; under foil tape
- **Foil Tape:**
  Double sided aluminium foil tape, polyester reinforced for strength
- **Braid:**
  Tinned copper, 85% coverage; over foil tape
- **Jacket:**
  Copolymer jacket
- **Sample Jacket Marking:**
  TAPPAN W & C E135319 (UL) TYPE TC-ER XX/C XX/AWG XLPE CDRS 90C WET OR DRY 600 V DIR. BUR. SUN. RES. -40C UL COLD BEND OIL I & II CLASS 1 DIV 2 c(UL) FT-4 VFD 1000 V FLEXIBLE MOTOR SUPPLY CABLE MADE IN USA

Southwire®

WEIGHTS, MEASUREMENTS AND PACKAGING

TAPPAN SPEC NUMBER	NUMBER OF CONDUCTORS INCLUDING GROUND	CONDUCTOR SIZE (AWG)	CONDUCTOR STRANDING (#/AWG)	INSULATION THICKNESS (inch)	NUMBER OF DRAIN WIRES	DRAIN WIRE AWG & STRANDING	NOMINAL OVERALL DIAMETER (inch)	NET WEIGHT (lbs/1000 ft)
VARIABLE FREQUENCY DRIVE CABLE WITHOUT BRAKE PAIR								
H91949.1	4	16	26/30	.0450	1	16 (26/30)	0.535	164
H91950.1	4	14	41/30	.0450	1	14 (41/30)	0.575	229
H91870.1	4	12	65/30	.0450	1	12 (65/30)	0.630	247
H91951.1	4	10	105/30	.0450	1	10 (105/30)	0.721	354

Weights and dimensions are nominal and are subject to applicable industry tolerances.

VFD CABLE SELECTION GUIDE

AWG	230 V/3 PH	460 V/3 PH	575 V/3 PH	AWG	230 V/3 PH	460 V/3 PH	575 V/3 PH
BASED ON MOTOR HP							
16	1/4 to 3 HP	10 HP	10 HP	8	15 HP	30 HP	40 HP
14	5 HP	10 HP	15 HP	6	20 HP	40 HP	50 HP
12	7 1/2 HP	15 HP	20 HP	4	25 HP	50 HP	60 HP
10	10 HP	20 HP	30 HP	2	40 HP	75 HP	100 HP

Values based on Typical Full Load Current (FLC) ratings of three phase AC motors as published in NEC® Table 430.250 (2005) Multiplied by 125% per NEC® article 430-22 (A) (2005). The ampacity ratings of the cables are based on NEC® Table 310.16 (2005), for 90 deg. crated conductors. The VFD w/signal pair ampacity ratings were de-rated to 80% per NEC® Table 310.15 (B)(2)(a)(2005) due to increased number of current carrying conductors included in these cables. Please consult drive/motor manufacturers for exact FLC ratings as well as any temperature deratings that may apply. NEC® ampacity interpretations are subject to user's local authority having jurisdiction.