

VARIABLE FREQUENCY DRIVE 600/1000 VOLT XHHW-2 FLEXIBLE CABLE

Reduced Diameter Type TC-ER Variable Frequency Drive Cable 600 Volt Tinned Copper Conductors, Crosslinked Insulation Type XHHW-2. Thermoplastic Elastomer Jacket. Rated 90C Dry or Wet, -40C Cold Impact, Identification Method 4, 1000 Volt Flexible Motor Supply. CSA CIC/TC FT4 Flame.



Image not to scale. See Table 1 for Dimensions

CONSTRUCTION:

1. **Conductors:** Class K, Flexible stranded tinned annealed copper per ASTM B3, B172, and B174
2. **Insulation:** Cross Linked insulation on all conductors. Type XHHW-2 on 14 awg and larger.
3. **Ground:** One green ground with yellow stripe cross linked insulation. Size equal to phase conductor
4. **Drain Wire:** Tinned copper See Table for size and strand
5. **Shielding:** 100% coverage Alum/Mylar/Alum Foil, overall 85% coverage tinned copper braid
6. **Jacket:** Black Thermoplastic Elastomer TPE

APPLICATIONS AND FEATURES:

Power supply cable for VFDs and motors, suitable for cable tray, conduit, raceways, exposed run (TC-ER) and machine tool wiring conforming to NFPA 79 2018. Suitable for free air and direct burial. It's flexible design is ideal for use on operation processes in accordance with the NEC® Articles 336, 501 and 502 including, but not limited to: fans, pumps, conveyors, compressors, elevators and lifts, extruders, crushers and presses, assembly lines, food and beverage, wind energy and data centers. Cable is rated for -40°C Cold Bend and Impact. Multiple approvals for multiple applications

SPECIFICATIONS:

- ASTM B172 - Rope-Lay-Stranded Copper Conductors
- ASTM B174 - Bunch-Stranded Copper Conductors
- ASTM B33 - Tinned soft or annealed Copper
- UL 44 - Thermoset Insulation
- UL 1277 - Type TC-ER Standard Power and Control Cables
- UL 2277 - Type WTTC Flexible Motor Supply
- UL 758 - AWM Style 20886 Standard for Appliance Wiring Material.
- C22.2 No. 230 Type TC
- CSA 22.2 No. 239 TYPE CIC
- CSA C22.2 No. 210 - CSA AWM I/II A/B
- NFPA 79 - Electrical Standard for Industrial Machinery
- **CE/RoHS-2 – The CE Marking has been applied solely to express the conformance to the material restrictions identified in the RoHS-2 (2011/65/EU) Directive.**



Southwire Company, LLC | One Southwire Drive, Carrollton, GA 30119 | www.southwire.com

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SAMPLE PRINT LEGEND

SOUTHWIRE{R} 12 AWG 4/C VFD XHHW-2 CDRS TYPE TC-ER E75755 MASTER-DESIGN {UL} 600V 90C DRY 90C WET SUN RES OIL RES 1/11 DIR BUR -40C OR WTTC 1000V OR {RU} AWM 20886 105C 1000V OR FLEXIBLE MOTOR SUPPLY CABLE 1000V---- LL90458 {CSA} CIC/TC FT4 OR AWM 1/11 A/8 105C 1 000V -40C FT4 -- {CE} ROHS-2 MADE IN USA SEO FEET

Table 1 – Measurements and Electrical

Stock Code	Conductor Size	Cond. OD	Num. of ϕ Conds.	Ground Size	Drain Wire	Insulation Thickness	Jacket Thickness	Nominal OD (6)	Nominal Weight	*Ampacity NEC 310.15 (B) (16) amps		Min Bend Radius
	AWG (Strds)	inches		AWG		mils	mils	inches	Lbs/MFT	75°C	90°C	Inches
645824	16 (26)	0.054	3	1 x 16	1 x 16-26	31	47	0.408	112	10	10	4.90
645825	14 (41)	0.074	3	1 x 14	1 x 14-41	31	47	0.444	145	15	15	5.33
645826	12 (65)	0.090	3	1 x 12	1 x 12-65	31	47	0.490	195	20	20	5.88
645827	10 (105)	0.112	3	1 x 10	1 x 10-105	31	62	0.591	291	30	30	7.09
677299	8 (168)	0.163	3	1 x 8	4 x 14-41	46	62	0.774	480	50	55	9.29

*Ampacity based on 310.15 (B) (16) up to and including 2000 volts, not more than 3 current-carrying conductors, ambient 30°C (86°F)

All dimensions are nominal and subject to normal manufacturing tolerances

◊ Cable marked with this symbol is a standard stock item



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