

# CU 600V XLPE Shielded Servo Cable

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

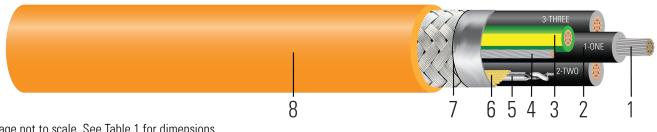


Image not to scale. See Table 1 for dimensions.

#### **CONSTRUCTION:**

- 1. Conductor: Class K, flexible stranded tinned annealed copper per ASTM B33 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 drain wire two AWG sizes smaller than signal wire
- 5. **Twisted Shielded Pair:** 100% coverage aluminum/Mylar foil shield (color code: black, white)
- 6. Shielding: 100% coverage aluminum/Mylar/aluminum foil, overall 85% coverage tinned copper braid
- 7. **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 conforming to NFPA 79 2018. Suitable for free air and direct burial. Its flexible design is ideal for use on operation processes in accordance with 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 -40C Cold Bend and Impact. Multiple approvals for multiple applications.

### **SPECIFICATIONS:**













- ASTM B33 Standard Specification for Tin-Coated Soft or Annealed Copper Wire
- ASTM B174 Standard Specification for Bunch-Stranded Copper
- UL 44 Thermoset-Insulated Wires and Cables
- UL 758 Standard for Appliance Wiring Material Style 20886
- UL 1277 Type TC-ER Standard Power and Control Cables (1000V 14AWG and Larger)
- UL 2277 Flexible Motor Supply Cable and Wind Turbine Tray Cable
- CSA C22.2 No. 210 Appliance wiring material products I/II A/B (Sizes 16 8AWG)
- CSA C22.2 No.230 Tray Cables Rated TC
- CSA C22.2 No. 239 Control and instrumentation cables
- 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
- NFPA 79 Electrical Standard for Industrial Machinery
- Made in America: Compliant with both Buy American and Buy America Act (BAA) requirements per 49 U.S.C. § 5323(j) and the Federal Transit Administration Buy America requirements per 49 C.F.R. part 661

#### SAMPLE PRINT LEGEND:

SQFTG SOUTHWIRE $\{R\}$  XX AWG (XX $\{mm2\}$ ) X/C + XX AWG (XX $\{mm2\}$ ) X PR VFD XHHW-2 TYPE TC-ER E75755  $\{UL\}$  1000V 90 $\{D\}$ C DRY 90 $\{D\}$ C WET SUN RES OIL RES I/II DIR BUR -40 $\{D\}$ C OR WTTC 1000V OR AWM 20886 105 $\{D\}$ C 1000V OR FLEXIBLE MOTOR SUPPLY CABLE 1000V -- LL90458  $\{CSA\}$  CIC/TC 600V FT4 OR AWM I/II A/B 105 $\{D\}$ C 1000V -40 $\{D\}$ C FT4 --  $\{CE\}$  ROHS-3 MADE IN USA

## **Table 1 – Weights and Measurements**

Cond. Size	Cond. Number	Strand Count	Diameter Over Conductor	Insul. Thickness	Ground	Drain Wire	Dia. Over Shield	Jacket Thickness	Approx. OD	Copper Weight	Approx. Weight	Jacket Color
AWG/ Kcmil		No. of Strands	inch	mil	No. x AWG	No. x AWG	inch	mil	inch	lb/1000ft	lb/1000ft	
8	3	168	0.153	45	1 x 8	1x12	0.696	60	0.820	367	526	OE

All dimensions are nominal and subject to normal manufacturing tolerances

# Table 2 – Electrical and Engineering Data

Cond. Size	Cond. Number	Min Bending Radius	Max Pull Tension	DC Resistance @ 25°C	AC Resistance @ 75°C	Capacitive Reactance @ 60Hz	Inductive Reactance @ 60Hz	Allowable Ampacity At 75°C	Allowable Ampacity At 90°C
AWG/ Kcmil		inch	lb	Ω/1000ft	Ω/1000ft	MΩ*1000ft	Ω/1000ft	Amp	Amp
8	3	10.8	396	0.715	0.861	0.040	0.052	50	55

<sup>\*</sup> Ampacities based upon 2023 NEC Table 310.16. See NEC sections 310.15 and 110.14(C) for additional requirements.











<sup>♦</sup> Cable marked with this symbol is a standard stock item