Multi-Conductor CU 600 V FR-XLPE Shielded With Drain Wire Thermoplastic LSZH-TP Jacket Color Method 1 Table 1

Type TC 600 Volt Copper, Fire Retardant Cross-Linked Polyethylene (FR-XLPE) insulation Shielded With Drain Wire Thermoplastic LSZH-TP Jacket. Conductor Identification Method 1 Table 1

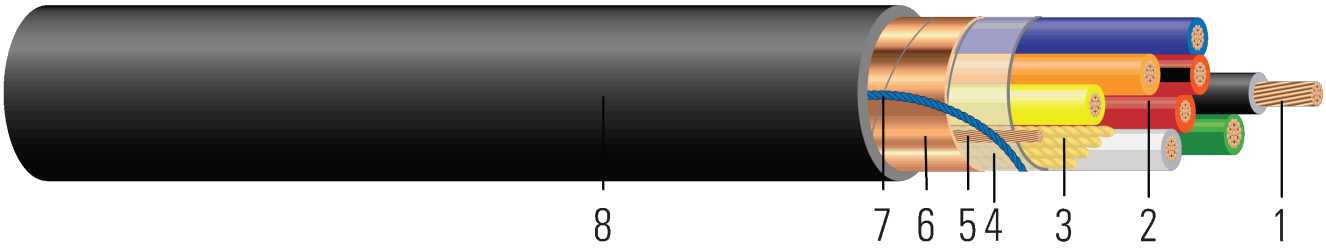


Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

1. **Conductor:** Class B compressed stranded bare copper per ASTM B3 and ASTM B8
2. **Insulation:** Fire Retardant Cross Linked Polyethylene (FR-XLPE)
3. **Filler:** Paper or Polypropylene filler
4. **Binder:** Polyester flat thread binder tape
5. **Drain Wire:** 16 AWG bare copper drain wire
6. **Shield:** 5 mil copper Helically-Applied Tape shield
7. **Rip Cord:** Rip cord for ease of jacket removal
8. **Overall Jacket:** Thermoplastic Low Smoke Zero Halogen LSZH-TP Jacket

APPLICATIONS AND FEATURES:

Southwire's 600 Volt control cables are suited for use in wet and dry areas, conduits, ducts, troughs, trays, direct burial, aerial supported by a messenger, and where superior electrical properties are desired. These cables are capable of operating continuously at the conductor temperature not in excess of 90°C for normal operation in wet and dry locations, 130°C for emergency overload, and 250°C for short circuit conditions. UL rated constructions can be used in Class I, II, and III, Division 2 hazardous locations per NEC Article 501 and 502. UL rated constructions with 3 or more conductors are listed for exposed runs (TC-ER) per NEC 336.10.

SPECIFICATIONS:

- ASTM B3 Soft or Annealed Copper Wire
- ASTM B8 Concentric-Lay-Stranded Copper Conductors
- UL 44 Thermoset-Insulated Wires and Cables
- UL 1277 Electrical Power and Control Tray Cables
- UL 1685 FT4 Vertical-Tray Fire Propagation and Smoke Release Test
- CSA *CSA marking is available upon request*
- ICEA S-58-679 Control Cable Conductor Identification Method 1 Table 2
- ICEA S-95-658 (NEMA WC70) Power Cables Rated 2000 Volts or Less for the Distribution of Electrical Energy

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SAMPLE PRINT LEGEND:

{SQFTG} SOUTHWIRE{R} E75755 {UL} TYPE TC XX AWG CU XX/C XHHW-2 CDRS E1 SHIELDED 90{D}C WET OR DRY LSZH-TP JKT 600V SUN RES DIRECT BURIAL

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Table 1 – Physical and Electrical Data

Stock Number	Cond. Size	Cond. Number	Cond. Strands	Diameter Over Cond.	Insul. Thickness	Jacket Thickness	Approx. OD	Copper Weight	Approx. Weight	DC Resistance @ 25°C	AC Resistance @ 75°C	Inductive Rectance	Min Bending Radius	Allowable Ampacity 75°C	Allowable Ampacity 90°C	Jacket Color
	AWG	No.	strands	inch	mil	mil	inch	lb / 1000ft	lb / 1000ft	Ω /1000ft	Ω /1000ft	Ω/1000ft	inch	Amp	Amp	
12 AWG																
664043	12	4	7	0.089	30	45	0.488	129	203	1.662	2.063	0.054	3.4	20	24	BK
664038	12	12	7	0.089	30	60	0.787	306	488	1.662	2.063	0.054	5.5	12	15	BK
10 AWG																
664046	10	2	7	0.113	30	45	0.472	111	173	1.04	1.291	0.05	3.3	35	40	BK
664032	10	4	7	0.113	30	60	0.578	180	284	1.04	1.291	0.05	4	28	32	BK
664040	10	12	7	0.113	30	80	0.929	456	710	1.04	1.291	0.05	6.5	18	20	BK

All dimensions are nominal and subject to normal manufacturing tolerances
◊ Cable marked with this symbol is a standard stock item
† Ampacities based upon 2023 NEC Table 310.16 and do not take into account the overcurrent protection limitations in NEC 240.4(D) of 15 Amps for 14 AWG CU, 20 Amps for 12 AWG CU, and 30 Amps for 10 AWG CU (independent of the conductor temperature rating and stranding if size is present in table). Also, see NEC sections 310.15 and 110.14(C) for additional requirements.
† Ampacities have been adjusted for more than Three Current-Carrying Conductors.
* Inductive impedance is based on non-ferrous conduit with one diameter spacing.
TBA stock codes are estimations only and actual product may vary. Please wait until a stock code is assigned to purchase connectors and/or fittings.

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