Multi-Conductor CU 600 V FR-XLPE Thermoset CPE-TS Jacket Control Cable Color Method 1 Table 1

Control Cable, 600 Volt, Copper Conductors, Flame Retardant Cross Linked Polyethylene (FR-XLPE) Insulation, Thermoset Chlorinated Polyethylene (CPE-TS) Jacket, Control Cable Conductor Identification Method 1 Table 1



Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

1. **Conductor:** 7-strand, class B, compressed, bare copper per ASTM B3 and B8 or 7-strand, class B, compressed, tinned copper per ASTM B33 and B8
2. **Insulation:** Flame Retardant Cross Linked Polyethylene (FR-XLPE)
3. **Filler:** Polypropylene filler on cables with 5 or less conductors
4. **Binder:** Polypropylene binder tape
5. **Rip Cord:** Rip cord for ease of jacket removal
6. **Overall Jacket:** Thermoset Chlorinated Polyethylene (CPE-TS)

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.

SPECIFICATIONS:

- ASTM B3 Soft or Annealed Copper Wire
- ASTM B8 Concentric-Lay-Stranded Copper Conductors
- ASTM B33 Standard Specification for Tin-Coated Soft or Annealed Copper Wire
- UL 44 Thermoset-Insulated Wires and Cables
- UL 1277 Electrical Power and Control Tray Cables
- UL 1685 Vertical-Tray Fire Propagation and Smoke Release Test
- ICEA S-58-679 Control Cable Conductor Identification Method 1 Table 1
- ICEA S-73-532 Control, Thermocouple Extension, and Instrumentation Cables (applicable to sizes 20-9 AWG conductors)
- 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:

Non UL Listed:

SOUTHWIRE XX AWG X/C FR-XLPE CDRS 90°C CPE JKT SUNLIGHT RESISTANT TYPE TC 600V {MM/DD/YYYY} {SEQUENTIAL FOOTAGE MARKS} SEQ FEET

UL Listed:

SOUTHWIRE E75755 {UL} XX AWG 3/C TYPE TC-ER FR-XLPE XHHW-2 CDRS 90°C CPE JKT SUNLIGHT RESISTANT DIRECT BURIAL 600 VOLTS YEAR {SEQUENTIAL FOOTAGE MARKS} SEQ FEET

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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																
618423	12	4	7	0.089	30	45	0.463	81	149	1.662	2.063	0.054	1.9	20	24	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 stock numbers containing more than Three Current-Carrying Conductors.
• 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.
^ UL listed part number
! Tinned copper conductor per ASTM B33
& 19 strand Class C compressed conductor per ASTM B8
† Silicone flame-retardant binder tape

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