

Multi-Conductor CU 600 V FR-XLPE Shielded Thermoset CPE-TS Jacket Control Cable Color Method 1 Table 2

Control Cable 600 Volt Copper Conductors, Flame Retardant Cross Linked Polyethylene (FR-XLPE) Insulation Shielded Thermoset Chlorinated Polyethylene (CPE-TS) Jacket, Control Cable Conductor Identification Method 1 Table 2. Silicone Free



Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

- 1. Conductor: 7 strands class B compressed bare copper per ASTM B3 and ASTM B8
- 2. Insulation: Flame Retardant Cross Linked Polyethylene (FR-XLPE), 30 Mils thick for all cable sizes
- 3. Filler: Polypropylene filler on cables with 5 or less conductors
- 4. Binder: Polyester flat thread binder tape applied for cables with more than 5 conductors
- 5. Shielding: 5 mil copper Helically-Applied Tape shield
- 6. Rip Cord: Rip cord for ease of jacket removal
- 7. 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. 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
- ICEA S-58-679 Control Cable Conductor Identification Method 1 Table 2
- ICEA S-73-532 Standard for Control, Thermocouple Extension and Instrumentation Cables
- 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:

UL Listed

SOUTHWIRE {UL} XX AWG CU X/C FR-XLPE XHHW-2 TYPE TC CDRS 90C CPE-TS JKT SHIELDED 600V SUN RES MM/YYYY {SEQUENTIAL FOOTAGE MARKS} SEQ FEET

Non UL Listed

SOUTHWIRE XX AWG X/C FR-XLPE CDRS 90C PVC JACKET SUNLIGHT RESISTANT DIRECT BURIAL 600V {MM/DD/YYYY} {SEQUENTIAL FOOTAGE MARKS} SEQ FEET

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Table 1 – Physical and Electrical Data

Cond. Size	Cond. Number	Cond. Strands	Diameter Over Cond.	insui.	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
AWG	No.	strands	inch	mil	mil	inch	lb / 1000ft	lb / 1000ft	Ω /1000ft	Ω /1000ft	Ω/1000ft	inch	Amp	Amp
12 AWG														
12	4	7	0.088	30	45	0.487	109	180	1.662	2.002	0.054	5.8	20	24
12	9	7	0.088	30	60	0.699	224	368	1.662	2.002	0.054	8.4	17	21
10 AWG														
10	4	7	0.113	30	60	0.576	162	270	1.040	1.253	0.050	4.0	28	32
	Size AWG 12 12	Size Number AWG No. 12 4 12 9	Size Number Strands AWG No. strands 12 4 7 12 9 7	Cond.Cond.Cond.SizeNumberStrandsOver Cond.AWGNo.strandsinch12470.08812970.088	Cond.Cond.Over Cond.Insul. ThicknessAWGNo.strandsinchmil12470.0883012970.08830	Cond.Cond.Cond.Insul.JacketSizeNumber StrandsOver Cond.ThicknessThicknessAWGNo.strandsinchmilmil12470.088304512970.0883060	Cond.Cond.Cond.Insul.JacketApprox.SizeNumberStrandsOver Cond.ThicknessThicknessODAWGNo.strandsinchmilmilinch12470.08830450.48712970.08830600.699	Cond.Cond.Cond.JacketApprox.Copper WeightAWGNo.strandsinchmilmilinchIb / 1000ft12470.08830450.48710912970.08830600.69922410 AWG	Cond.Cond.Cond.Over Cond.Insul.Jacket Approx.Approx. Copper ODCopper WeightApprox. WeightAWGNo.strandsinchmilmilinchlb / 1000ftlb / 1000ft12470.08830450.48710918012970.08830600.699224368In Awg	Cond. Over Cond. Over Cond. Datest oper Cond. Opprox. Copper Approx. Resistance @ 25°C AWG No. strands inch mil mil inch Ib / 1000ft	Control Control Over Cond. Instant Dacket Approx. Coppet Approx. Resistance @ 25°C Resistance @ 75°C AWG No. strands inch mil mil inch Ib / 1000ft 00/ft 0/1000ft <	Size Number Strands Over Cond. Thickness Docket Approx. Coppet Approx. Resistance Resistance Resistance Rectance AWG No. strands inch mil mil inch lb / 1000ft lb / 1000ft 0/1000ft Ω /1000ft	Cond. Over Cond. Over Cond. Thickness Docket Approx. Sopper Approx. Sopper Approx. Resistance @ 25°C Resistance @ 75°C Rectance Bending Radius AWG No. strands inch mil mil inch lb / 1000ft lb / 1000ft 0/1000ft Ω/1000ft Ω/1000ft Ω/1000ft Ω/1000ft inch 12 4 7 0.088 30 45 0.487 109 180 1.662 2.002 0.054 5.8 12 9 7 0.088 30 60 0.699 224 368 1.662 2.002 0.054 8.4 How support	Cond. Over Cond. Over Cond. Thickness Dacket Approx. Copper Approx. Copper Approx. Resistance Resista

^ UL listed part number

* 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.