Multi-Conductor CU 600 V FR-XLPE Shielded Drain Wire 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 Shielded Drain Wire Thermoset Chlorinated Polyethylene Chloride (CPE-TS) Jacket, Control Cable Conductor Identification Method 1 Table 1. 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. Tinned copper available upon request.
2. **Insulation:** Cross Linked Polyethylene (XLPE) XHHW-2, 30 Mils thick for all cable sizes
3. **DrainWire:** Bare copper drain wire. Tinned copper drain wire available upon request.
4. **Filler:** Polypropylene filler on cables with 5 or less conductors
5. **Binder:** Polyester flat thread binder tape applied for cables with more than 5 conductors
6. **Shielding:** 5 mils tape shield
7. **Rip Cord:** Rip cord for ease of jacket removal
8. **Overall Jacket:** Thermoset Chlorinated Polyethylene Chloride (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
- UL 1685 FT4 Vertical-Tray Fire Propagation and Smoke Release Test
- ICEA S-58-679 Control Cable Conductor Identification Method 1 Table 1
- 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
- IEEE 1202 FT4 Vertical Tray Flame Test (70,000 Btu/hr) and ICEA T-29-520 - (210,000 Btu/hr)

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- VW-1 (Vertical-Wire) Flame Test

SAMPLE PRINT LEGEND:

UL Listed
SOUTHWIRE E75755 {UL} XX AWG X/C FR-XLPE CDRS SHIELDED 90C CPE JACKET SUNLIGHT RESISTANT DIRECT BURIAL 600V {MM/DD/YYYY} {SEQUENTIAL FOOTAGE MARKS} SEQ FEET

Non UL Listed
SOUTHWIRE XX AWG X/C FR-XLPE CDRS SHIELDED 90C CPE JACKET SUNLIGHT RESISTANT DIRECT BURIAL 600V {MM/DD/YYYY} {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 At 60°C	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	Amp
10 AWG																
607190^!	10	4	7	0.113	30	60	0.573	163	256	1.040	1.253	0.050	4.0	24	28	32
626415^!	10	12	7	0.113	30	80	0.915	452	682	1.040	1.253	0.050	11.0	15	17	20
8 AWG																
626436^!	8	3	7	0.141	45	60	0.657	203	333	0.653	0.786	0.052	4.6	40	50	55

All dimensions are nominal and subject to normal manufacturing tolerances
◊ Cable marked with this symbol is a standard stock item
^ UL listed part number
! Tinned copper conductor per ASTM B33
* 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.