



# Multi-Conductor CU 600 V FR-XLPE Thermoplastic CPE-TP Jacket Control Cable Color Method 1 Table 1

Control Cable 600 Volt Copper Conductors, Flame Retardant Cross Linked Polyethylene (FR-XLPE) Insulation Thermoplastic Chlorinated Polyethylene (CPE-TP) 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 B8
2. **Insulation:** Flame Retardant Cross Linked Polyethylene (FR-XLPE)
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. **Rip Cord:** Rip cord for ease of jacket removal
6. **Overall Jacket:** Thermoplastic Chlorinated Polyethylene (CPE-TP)

## 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 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)
- VW-1 (Vertical-Wire) Flame Test





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**SAMPLE PRINT LEGEND:**

**UL Listed:**

SOUTHWIRE E75755 {UL} XX AWG X/C FR-XLPE XHHW-2 TYPE TC CDRS 90C CPE JKT 600V SUNLIGHT RESISTANT MM/  
YYYY{SEQUENTIAL FOOTAGE MARKS} SEQ FEET

**Non UL Listed:**

SOUTHWIRE XX AWG X/C FR-XLPE CDRS 90C CPE JKT 600V SUN. RES. DIRECT BURIAL YEAR {SEQUENTIAL FOOTAGE  
MARKS} SEQ FEET





**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 Reactance	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	
<b>16 AWG</b>																
673140	16	2	7	0.056	25	45	0.308	16	48	4.181	5.037	0.033	1.2	-	18	Black
619261	16	4	7	0.056	25	45	0.354	32	75	4.181	5.037	0.033	1.4	-	14	Black
604310	16	7	7	0.056	25	45	0.429	56	120	4.181	5.037	0.033	1.7	-	12	Black
619263	16	8	7	0.056	25	45	0.449	64	132	4.181	5.037	0.033	1.7	-	12	Black
<b>14 AWG</b>																
604210	14	2	7	0.070	30	45	0.357	25	64	2.631	3.170	0.058	1.4	20	25	Black
619930	14	12	7	0.070	30	60	0.663	153	291	2.631	3.170	0.058	2.6	10	12	Black
<b>12 AWG</b>																
604211	12	2	7	0.088	30	45	0.404	40	89	1.662	2.002	0.054	1.6	25	30	Black
606672 <sup>A</sup>	12	2	7	0.088	30	45	0.404	40	89	1.662	2.002	0.054	1.6	25	30	Black
616890 <sup>A</sup>	12	4	7	0.088	30	45	0.445	81	141	1.662	2.002	0.054	1.7	20	24	Black
604212	12	4	7	0.088	30	45	0.463	81	149	1.662	2.002	0.054	1.9	20	24	Black
619308	12	7	7	0.088	30	60	0.561	142	246	1.662	2.002	0.054	2.2	17	21	Black
619937	12	7	7	0.088	30	60	0.569	142	251	1.662	2.002	0.054	2.2	17	21	Black
619939	12	9	7	0.088	30	60	0.655	183	311	1.662	2.002	0.054	2.6	17	21	Black
618414	12	12	7	0.088	30	60	0.732	244	402	1.662	2.002	0.054	2.9	12	15	Black
<b>10 AWG</b>																
619943	10	2	7	0.113	30	45	0.440	64	118	1.040	1.253	0.050	1.7	35	40	Black
606671 <sup>A</sup>	10	2	7	0.113	30	45	0.452	64	131	1.040	1.253	0.050	1.8	35	40	Black
618360	10	3	7	0.113	30	45	0.459	97	165	1.040	1.253	0.050	1.8	35	40	Black
619945	10	4	7	0.113	30	45	0.506	129	203	1.040	1.253	0.050	2.0	28	32	Black
619240	10	4	7	0.113	30	45	0.506	129	202	1.040	1.253	0.050	2.0	28	32	Black
604219	10	7	7	0.113	30	60	0.637	226	349	1.040	1.253	0.050	2.5	24	28	Black
619950	10	9	7	0.113	30	60	0.745	291	443	1.040	1.253	0.050	2.9	24	28	Black
622897	10	12	7	0.113	30	80	0.875	388	607	1.040	1.253	0.050	3.5	17	20	Black
604301 <sup>S</sup>	10	2	19	0.117	30	45	0.440	64	117	1.040	1.253	0.050	1.7	35	40	Black
604302 <sup>S</sup>	10	4	19	0.117	30	60	0.557	129	225	1.040	1.253	0.050	2.2	28	32	Black
604304 <sup>S</sup>	10	12	19	0.117	30	80	0.887	388	608	1.040	1.253	0.050	3.5	17	20	Black
<b>8 AWG</b>																
604224	8	2	7	0.141	45	60	0.588	102	201	0.653	0.786	0.052	2.3	50	55	Black
604299	8	4	7	0.141	45	60	0.700	206	363	0.653	0.786	0.052	2.8	40	44	Black
664353 <sup>S</sup>	8	6	19	0.141	45	80	0.883	309	542	0.653	0.786	0.052	3.5	40	44	Black
<b>6 AWG</b>																
604296	6	2	7	0.177	45	60	0.664	163	280	0.411	0.495	0.051	2.6	65	75	Black
604297	6	3	7	0.177	45	60	0.706	245	390	0.411	0.495	0.051	2.8	65	75	Black
619238	6	2	7	0.177	45	60	0.712	163	300	0.411	0.495	0.051	2.8	65	75	Black
618351	6	3	7	0.177	45	60	0.782	245	431	0.411	0.495	0.051	3.1	65	75	Black
619959	6	4	7	0.177	45	60	0.787	327	506	0.411	0.495	0.051	3.1	52	60	Black
<b>4 AWG</b>																





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	AWG	No.	strands	inch	mil	mil	inch	lb / 1000ft	lb / 1000ft	Ω /1000ft	Ω /1000ft	Ω/1000ft	inch	Amp	Amp	
606604 <sup>^</sup>	4	2	7	0.225	45	60	0.762	260	410	0.258	0.310	0.048	3.0	85	95	Black
606674 <sup>^</sup>	4	2	7	0.225	45	60	0.773	260	413	0.258	0.310	0.048	3.1	85	95	Black
2 AWG																
604294	2	2	7	0.377	45	80	0.926	414	622	0.162	0.211	0.028	3.7	115	130	Black

All dimensions are nominal and subject to normal manufacturing tolerances

◇ Cable marked with this symbol is a standard stock item

<sup>^</sup> UL listed part number

& 19 strand Class C compressed conductor per ASTM B8

§ 19 strand combination unilay copper per ASTM B787

\* 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.

