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 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
- 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

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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	
16 AWG																
673140	16	2	7	0.057	25	45	0.316	16	51	4.181	5.189	0.033	1.3	-	18	BK
619261	16	4	7	0.057	25	45	0.362	32	77	4.181	5.189	0.033	1.4	-	14	BK
604310	16	7	7	0.057	25	45	0.43	56	120	4.181	5.189	0.033	1.7	-	13	BK
619263	16	8	7	0.057	25	45	0.459	64	134	4.181	5.189	0.033	1.8	-	13	BK
14 AWG																
604210	14	2	7	0.071	30	45	0.368	26	67	2.631	3.265	0.058	1.5	20	25	BK
619930	14	12	7	0.071	30	60	0.692	154	304	2.631	3.265	0.058	2.8	10	12	BK
12 AWG																
604211	12	2	7	0.089	30	45	0.404	41	90	1.662	2.063	0.054	1.6	25	30	BK
606672^	12	2	7	0.089	30	45	0.409	41	90	1.662	2.063	0.054	1.6	25	30	BK
616890^	12	4	7	0.089	30	45	0.463	81	148	1.662	2.063	0.054	1.9	20	24	BK
604212	12	4	7	0.089	30	45	0.468	81	150	1.662	2.063	0.054	1.9	20	24	BK
619937	12	7	7	0.089	30	60	0.576	143	255	1.662	2.063	0.054	2.3	18	21	BK
619308	12	7	7	0.089	30	60	0.585	143	256	1.662	2.063	0.054	2.3	18	21	BK
619939	12	9	7	0.089	30	60	0.683	183	323	1.662	2.063	0.054	2.7	18	21	BK
618414	12	12	7	0.089	30	60	0.762	244	416	1.662	2.063	0.054	3	12	15	BK
10 AWG																
619943	10	2	7	0.113	30	45	0.452	65	121	1.04	1.291	0.05	1.8	35	40	BK
606671^	10	2	7	0.113	30	45	0.457	65	132	1.04	1.291	0.05	1.8	35	40	BK
618360	10	3	7	0.113	30	45	0.476	97	171	1.04	1.291	0.05	1.9	35	40	BK
619945	10	4	7	0.113	30	60	0.558	129	226	1.04	1.291	0.05	2.2	28	32	BK
619240	10	4	7	0.113	30	60	0.558	129	225	1.04	1.291	0.05	2.2	28	32	BK
604219	10	7	7	0.113	30	60	0.661	227	361	1.04	1.291	0.05	2.6	24	28	BK
619950	10	9	7	0.113	30	60	0.745	291	444	1.04	1.291	0.05	3	24	28	BK
604301$	10	2	19	0.117	30	45	0.452	65	127	1.04	1.291	0.05	1.8	35	40	BK
604302$	10	4	19	0.117	30	60	0.558	129	226	1.04	1.291	0.05	2.2	28	32	BK
604304$	10	12	19	0.117	30	80	0.909	388	626	1.04	1.291	0.05	3.6	18	20	BK
8 AWG																
604224	8	2	7	0.142	45	60	0.602	103	207	0.653	0.81	0.052	2.4	50	55	BK
604299	8	4	7	0.142	45	60	0.7	206	363	0.653	0.81	0.052	2.8	40	44	BK
664353$	8	6	19	0.142	45	80	0.883	309	542	0.653	0.81	0.052	3.5	40	44	BK
6 AWG																
604296	6	2	7	0.178	45	60	0.674	164	292	0.411	0.51	0.051	2.7	65	75	BK
604297	6	3	7	0.178	45	60	0.718	246	397	0.411	0.51	0.051	2.9	65	75	BK
619238	6	2	7	0.178	60	60	0.738	164	312	0.411	0.51	0.051	3	65	75	BK
618351	6	3	7	0.178	60	60	0.783	246	432	0.411	0.51	0.051	3.1	65	75	BK
619959	6	4	7	0.178	45	60	0.787	327	507	0.411	0.51	0.051	3.1	52	60	BK
4 AWG																
606604^	4	2	7	0.225	45	80	0.762	260	410	0.258	0.32	0.048	3	85	95	BK

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	AWG	No.	strands	inch	mil	mil	inch	lb / 1000ft	lb / 1000ft	Ω /1000ft	Ω /1000ft	Ω/1000ft	inch	Amp	Amp	
606674^	4	2	7	0.225	45	60	0.773	260	413	0.258	0.32	0.048	3.1	85	95	BK
2 AWG																
604294	2	2	7	0.283	45	80	0.926	414	622	0.162	0.201	0.045	3.7	115	130	BK

All dimensions are nominal and subject to normal manufacturing tolerances
◊ Cable marked with this symbol is a standard stock item
^ 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.

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