Multi-Conductor CU 600 V FR-XLPE Thermoplastic CPE-TP Jacket Control Cable Color Method 1 Table 2

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 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. **Rip Cord:** Rip cord for ease of jacket removal
6. **Overall Jacket:** Thermoplastic Chlorinated Polyethylene (CPE-TP) Jacket

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 2
- 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	
14 AWG																
TBA	14	3	7	0.071	30	45	0.379	39	81	2.631	3.265	0.058	1.5	20	25	BK
TBA	14	4	7	0.071	30	45	0.413	53	103	2.631	3.265	0.058	1.7	16	20	BK
619662$	14	4	19	0.071	30	45	0.424	51	114	2.631	3.265	0.058	1.7	16	20	BK
TBA	14	5	7	0.071	30	45	0.45	66	125	2.631	3.265	0.058	1.8	16	20	BK
TBA	14	6	7	0.071	30	45	0.489	79	146	2.631	3.265	0.058	2	16	20	BK
TBA	14	7	7	0.071	30	45	0.489	92	165	2.631	3.265	0.058	2	14	18	BK
TBA	14	8	7	0.071	30	60	0.56	105	201	2.631	3.265	0.058	2.2	14	18	BK
TBA	14	9	7	0.071	30	60	0.599	118	223	2.631	3.265	0.058	2.4	14	18	BK
TBA	14	10	7	0.071	30	60	0.65	131	247	2.631	3.265	0.058	2.6	10	12	BK
604289	14	12	7	0.071	30	60	0.673	154	296	2.631	3.265	0.058	2.7	10	12	BK
TBA	14	15	7	0.071	30	60	0.743	197	350	2.631	3.265	0.058	3	10	12	BK
TBA	14	19	7	0.071	30	60	0.781	249	427	2.631	3.265	0.058	3.1	10	12	BK
TBA	14	20	7	0.071	30	60	0.822	263	451	2.631	3.265	0.058	3.3	10	12	BK
TBA	14	25	7	0.071	30	80	0.952	328	585	2.631	3.265	0.058	3.8	9	11	BK
TBA	14	30	7	0.071	30	80	1.006	394	686	2.631	3.265	0.058	5	9	11	BK
TBA	14	37	7	0.071	30	80	1.083	486	827	2.631	3.265	0.058	5.4	8	10	BK
619661$	14	2	19	0.073	30	45	0.368	26	69	2.631	3.265	0.058	1.5	20	25	BK
619663$	14	12	19	0.073	30	60	0.692	154	304	2.631	3.265	0.058	2.8	10	12	BK
12 AWG																
606668^	12	2	7	0.089	30	45	0.409	41	89	1.662	2.063	0.054	1.6	25	30	BK
661944	12	3	7	0.089	30	45	0.429	61	120	1.662	2.063	0.054	1.7	25	30	BK
TBA	12	4	7	0.089	30	45	0.457	81	139	1.662	2.063	0.054	1.8	20	24	BK
624834!	12	4	7	0.089	30	45	0.477	81	153	1.662	2.063	0.054	1.9	20	24	BK
TBA	12	5	7	0.089	30	45	0.498	101	169	1.662	2.063	0.054	2	20	24	BK
TBA	12	6	7	0.089	30	60	0.573	121	213	1.662	2.063	0.054	2.3	20	24	BK
TBA	12	7	7	0.089	30	60	0.573	141	239	1.662	2.063	0.054	2.3	18	21	BK
TBA	12	8	7	0.089	30	60	0.619	162	272	1.662	2.063	0.054	2.5	18	21	BK
TBA	12	9	7	0.089	30	60	0.664	182	303	1.662	2.063	0.054	2.7	18	21	BK
TBA	12	10	7	0.089	30	60	0.722	202	335	1.662	2.063	0.054	2.9	12	15	BK
662180^	12	12	7	0.089	30	60	0.767	244	416	1.662	2.063	0.054	3.1	12	15	BK
662211	12	12	7	0.089	30	60	0.767	244	416	1.662	2.063	0.054	3.1	12	15	BK
TBA	12	15	7	0.089	30	80	0.868	303	509	1.662	2.063	0.054	3.5	12	15	BK
606714^	12	19	7	0.089	30	80	0.92	387	654	1.662	2.063	0.054	3.7	12	15	BK
TBA	12	20	7	0.089	30	80	0.957	404	655	1.662	2.063	0.054	3.8	12	15	BK
TBA	12	25	7	0.089	30	80	1.06	505	801	1.662	2.063	0.054	5.3	11	14	BK
TBA	12	30	7	0.089	30	80	1.121	606	943	1.662	2.063	0.054	5.6	11	14	BK
TBA	12	37	7	0.089	30	80	1.209	747	1141	1.662	2.063	0.054	6	10	12	BK
604308$	12	7	19	0.09	30	60	0.595	141	257	1.662	2.063	0.054	2.4	18	21	BK
10 AWG																

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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	
604290^	10	2	7	0.113	30	45	0.452	65	121	1.04	1.291	0.05	1.8	35	40	BK
TBA	10	3	7	0.113	30	45	0.47	97	154	1.04	1.291	0.05	1.9	35	40	BK
606503^	10	4	7	0.113	30		0.541	129	223	1.04	1.291	0.05	2.2	28	32	BK
604291	10	4	7	0.113	30	60	0.558	129	226	1.04	1.291	0.05	2.2	28	32	BK
TBA	10	5	7	0.113	30	60	0.593	162	256	1.04	1.291	0.05	2.4	28	32	BK
TBA	10	6	7	0.113	30	60	0.645	194	302	1.04	1.291	0.05	2.6	28	32	BK
622254	10	7	7	0.113	30	60	0.661	227	361	1.04	1.291	0.05	2.6	24	28	BK
TBA	10	8	7	0.113	30	60	0.699	259	388	1.04	1.291	0.05	2.8	24	28	BK
459864	10	9	7	0.113	30	80	0.769	291	456	1.04	1.291	0.05	3.1	24	28	BK
TBA	10	10	7	0.113	30	60	0.818	323	479	1.04	1.291	0.05	3.3	18	20	BK
606610^	10	12	7	0.113	30	80	0.909	388	626	1.04	1.291	0.05	3.6	18	20	BK
TBA	10	15	7	0.113	30	80	0.981	485	726	1.04	1.291	0.05	3.9	18	20	BK
TBA	10	19	7	0.113	30	80	1.031	614	892	1.04	1.291	0.05	5.2	18	20	BK
TBA	10	20	7	0.113	30	80	1.085	646	940	1.04	1.291	0.05	5.4	18	20	BK
TBA	10	25	7	0.113	30	80	1.204	808	1157	1.04	1.291	0.05	6	16	18	BK
TBA	10	30	7	0.113	30	80	1.275	970	1367	1.04	1.291	0.05	6.4	16	18	BK
TBA	10	37	7	0.113	30	80	1.377	1196	1660	1.04	1.291	0.05	6.9	14	16	BK
619664$	10	2	19	0.117	30	45	0.452	65	121	1.04	1.291	0.05	1.8	35	40	BK
619665$	10	4	19	0.117	30	60	0.558	129	233	1.04	1.291	0.05	2.2	28	32	BK
619666$	10	12	19	0.117	30	80	0.909	388	626	1.04	1.291	0.05	3.6	18	20	BK
8 AWG																
661866	8	2	7	0.142	45	60	0.602	103	216	0.653	0.81	0.052	2.4	50	55	BK
661865	8	4	7	0.142	45	60	0.7	206	354	0.653	0.81	0.052	2.8	40	44	BK
6 AWG																
622991	6	4	7	0.178	45	60	0.787	327	511	0.411	0.51	0.051	3.1	52	60	BK
603629†	6	4	19	0.178	45	60	0.792	327	511	0.411	0.51	0.051	3.2	52	60	BK
4 AWG																
661946	4	4	7	0.225	45	80	0.933	521	768	0.258	0.32	0.048	3.7	68	76	BK
603628$	4	4	19	0.225	45	80	0.945	521	790	0.258	0.32	0.048	3.8	68	76	BK
2 AWG																
603627†	2	4	19	0.286	45	80	1.092	828	1127	0.162	0.201	0.045	5.5	92	104	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
! Tinned copper conductor per ASTM B33
† 19 strand Class C conductor per ASTM B8
$ 19 strand combination unilay conductor 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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