Multi-Conductor CU 600 V FR-XLPE 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 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. **Rip Cord:** Rip cord for ease of jacket removal
6. **Overall Jacket:** Thermoset Chlorinated Polyethylene (CPE-TS) 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 TYPE TC XHHW-2 CDRS 90C CPE JKT FT4 VW-1 600V SUN RES {MM/DD/YYYY} {SEQUENTIAL FOOTAGE MARKS} SEQ FTG

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	
18 AWG																
622135	18	7	7	0.046	25	45	0.392	35	90	6.669	8.277	0.036	1.6	-	10	BK
620620^	18	20	7	0.046	25	60	0.637	101	240	6.669	8.277	0.036	2.5	-	7	BK
14 AWG																
625934^	14	2	7	0.071	30	45	0.366	26	73	2.631	3.265	0.058	1.5	20	25	BK
625838^	14	3	7	0.071	30	45	0.387	38	91	2.631	3.265	0.058	1.5	20	25	BK
625833^	14	4	7	0.071	30	45	0.421	51	113	2.631	3.265	0.058	1.7	16	20	BK
607527	14	4	7	0.071	30	60	0.425	51	115	2.631	3.265	0.058	1.7	16	20	BK
625828^	14	5	7	0.071	30	60	0.459	64	133	2.631	3.265	0.058	1.8	16	20	BK
625824^	14	7	7	0.071	30	60	0.499	90	173	2.631	3.265	0.058	2	14	18	BK
625819^	14	9	7	0.071	30	60	0.618	115	238	2.631	3.265	0.058	2.5	14	18	BK
607528	14	9	7	0.071	30	60	0.622	115	240	2.631	3.265	0.058	2.5	14	18	BK
625815^	14	12	7	0.071	30	60	0.692	154	303	2.631	3.265	0.058	2.8	10	12	BK
625781^	14	15	7	0.071	30	80	0.766	192	369	2.631	3.265	0.058	3.1	10	12	BK
607529	14	15	7	0.071	30	80	0.771	192	372	2.631	3.265	0.058	3.1	10	12	BK
625807^	14	19	7	0.071	30	80	0.798	243	448	2.631	3.265	0.058	3.2	10	12	BK
607526	14	27	7	0.071	30	80	0.977	346	656	2.631	3.265	0.058	3.9	9	11	BK
603776$	14	8	19	0.073	30	60	0.568	102	212	2.631	3.265	0.058	2.3	14	18	BK
12 AWG																
607484	12	2	7	0.089	30	45	0.405	41	93	1.662	2.063	0.054	1.6	25	30	BK
619933	12	3	7	0.089	30	45	0.429	61	120	1.662	2.063	0.054	1.7	25	30	BK
607513	12	4	7	0.089	30	60	0.476	81	154	1.662	2.063	0.054	1.9	20	24	BK
607521	12	9	7	0.089	30	60	0.687	183	326	1.662	2.063	0.054	2.7	18	21	BK
622186	12	12	7	0.089	30	80	0.767	244	416	1.662	2.063	0.054	3.1	12	15	BK
607514^	12	15	7	0.089	30	80	0.897	305	547	1.662	2.063	0.054	3.6	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
10 AWG																
607518	10	2	7	0.113	30	60	0.456	65	123	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
607512	10	4	7	0.113	30	60	0.562	129	228	1.04	1.291	0.05	2.2	28	32	BK
TBA	10	9	7	0.113	30	60	0.751	291	432	1.04	1.291	0.05	3	24	28	BK
662067	10	12	7	0.113	30	80	0.9	388	624	1.04	1.291	0.05	3.6	18	20	BK
8 AWG																
622218	8	2	7	0.142	45	60	0.602	103	216	0.653	0.81	0.052	2.4	50	55	BK
622219	8	3	7	0.142	45	60	0.64	154	296	0.653	0.81	0.052	2.6	50	55	BK
607519	8	4	7	0.142	45	80	0.704	206	357	0.653	0.81	0.052	2.8	40	44	BK
6 AWG																
607516	6	2	7	0.178	45	60	0.679	164	295	0.411	0.51	0.051	2.7	65	75	BK

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

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^ UL listed part number
% Silicone binder tape
$ 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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