Multi-Conductor CU 600 V FR-XLPE PVC Jacket Control Cable Color Method 1 Table 1

Control Cable 600 Volt Copper Conductors, Flame Retardant Cross Linked Polyethylene (FR-XLPE) Insulation Polyvinyl Chloride (PVC) 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
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:** Polyvinyl Chloride (PVC) 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 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
- CSA CSA marking is available upon request
- CSA C22.2 No.230 Tray Cables - Rated TC-ER
- 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) CDRS 90°C PVC JKT 600V TYPE TC-ER SUN. RES. DIRECT BURIAL YEAR {SEQUENTIAL FOOTAGE MARKS} SEQ FEET

CSA Listed
SOUTHWIRE #P 156205 CSA XX AWG X/C FR-XLPE CDRS 90C PVC JACKET, -40C, FT-4, SUN RES, DIR BUR, 600V {MM/DD/YYYY} {SEQUENTIAL FOOTAGE MARKS} SEQ FEET

Non UL Listed
SOUTHWIRE XX AWG X/C FR-XLPE CDRS 90C PVC 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 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
18 AWG															
624177	18	2	7	0.045	25	45	0.291	10	40	6.669	8.035	0.036	1.1	-	14
620556	18	4	7	0.045	25	45	0.329	20	59	6.669	8.035	0.036	1.3	-	11
604208	18	12	7	0.045	25	45	0.533	60	153	6.669	8.035	0.036	2.1	-	7
14 AWG															
618791^	14	3	7	0.070	30	45	0.386	38	95	2.631	3.170	0.058	1.5	20	25
TBA	14	5	7	0.070	30	45	0.449	63	122	2.631	3.170	0.058	1.7	16	20
619481	14	7	7	0.070	30	45	0.490	89	171	2.631	3.170	0.058	1.9	14	17
619483^	14	9	7	0.070	30	60	0.595	115	231	2.631	3.170	0.058	2.3	14	17
664329^	14	12	7	0.070	45	60	0.794	153	362	2.631	3.170	0.058	3.2	10	13
12 AWG															
620306	12	2	7	0.088	30	45	0.392	61	112	1.662	2.002	0.054	1.5	25	30
619487^	12	4	7	0.088	30	45	0.396	40	88	1.662	2.002	0.054	1.5	20	24
619488^	12	3	7	0.088	30	45	0.416	61	118	1.662	2.002	0.054	1.6	25	30
619489^	12	4	7	0.088	30	45	0.453	81	151	1.662	2.002	0.054	1.8	20	24
619492	12	7	7	0.088	30	60	0.571	142	253	1.662	2.002	0.054	2.2	17	21
604283^	12	12	7	0.088	30	60	0.742	244	409	1.662	2.002	0.054	2.9	12	15
620307	12	12	7	0.088	30	60	0.742	244	410	1.662	2.002	0.054	2.9	12	15
10 AWG															
604018	10	2	7	0.113	30	45	0.440	64	122	1.040	1.253	0.050	1.7	35	40
604282	10	2	7	0.113	30	45	0.440	64	134	1.040	1.253	0.050	1.7	35	40
672864^	10	3	7	0.113	30	45	0.467	129	203	1.040	1.253	0.050	1.8	35	40
620764	10	3	7	0.113	30	45	0.471	97	170	1.040	1.253	0.050	1.8	35	40
619088^	10	4	7	0.113	30	45	0.510	129	208	1.040	1.253	0.050	2.0	28	32
604284^	10	4	7	0.113	30	45	0.514	129	216	1.040	1.253	0.050	2.0	28	32
619090^	10	5	7	0.113	30	60	0.594	161	278	1.040	1.253	0.050	2.3	28	32
661859	10	7	7	0.113	30	60	0.640	226	354	1.040	1.253	0.050	2.5	24	28
628428^	10	7	7	0.113	30	60	0.643	226	356	1.040	1.253	0.050	2.5	24	28
619498^	10	8	7	0.113	30	60	0.696	258	404	1.040	1.253	0.050	2.7	24	28
673084	10	9	7	0.113	30	60	0.758	291	455	1.040	1.253	0.050	3.0	24	28
606676^	10	12	7	0.113	30	80	0.887	388	621	1.040	1.253	0.050	3.5	17	20
8 AWG															
619504^	8	2	7	0.141	45	60	0.598	102	209	0.653	0.786	0.052	2.3	50	55
619507^	8	3	7	0.141	45	60	0.635	154	289	0.653	0.786	0.052	2.5	50	55
619508^	8	4	7	0.141	45	60	0.694	205	355	0.653	0.786	0.052	2.7	40	44
6 AWG															
619512^	6	3	7	0.177	45	60	0.712	245	399	0.411	0.495	0.051	2.8	65	75
619514^	6	4	7	0.177	45	60	0.781	327	526	0.411	0.495	0.051	3.1	52	60
4 AWG															
619517^	4	3	7	0.225	45	60	0.805	390	577	0.258	0.310	0.048	3.2	85	95

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	AWG	No.	strands	inch	mil	mil	inch	lb / 1000ft	lb / 1000ft	Ω /1000ft	Ω /1000ft	Ω/1000ft	inch	Amp	Amp
619518^	4	4	7	0.225	45	80	0.926	520	764	0.258	0.310	0.048	3.7	68	76
2 AWG															
619524	2	3	7	0.282	45	80	0.981	620	890	0.162	0.195	0.045	3.9	115	130
661676	2	4	7	0.282	45	80	1.076	827	1142	0.162	0.195	0.045	5.3	92	104

All dimensions are nominal and subject to normal manufacturing tolerances

◊ Cable marked with this symbol is a standard stock item

^ UL listed part number

* 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.