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-strand, 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:** Polypropylene 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)

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 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) 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	Jac Col
	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	0.046	25	45	0.294	10	40	6.669	8.277	0.036	1.2	-	14	BK
620309	18	4	7	0.046	25	45	0.335	20	61	6.669	8.277	0.036	1.3	-	11	BK
624176	18	7	7	0.046	25	45	0.392	35	91	6.669	8.277	0.036	1.6	-	10	BK
604208	18	12	7	0.046	30	60	0.588	61	176	6.669	8.277	0.036	2.4	-	7	BK
14 AWG																
618791^	14	3	7	0.071	30	45	0.39	38	96	2.631	3.265	0.058	1.6	20	25	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
619481	14	7	7	0.071	30	45	0.503	90	176	2.631	3.265	0.058	2	14	18	BK
619483^	14	9	7	0.071	30	60	0.602	115	235	2.631	3.265	0.058	2.4	14	18	BK
664329^	14	12	7	0.071	45	60	0.817	154	375	2.631	3.265	0.058	3.3	10	12	BK
12 AWG																
620306	12	2	7	0.089	30	45	0.404	61	115	1.662	2.063	0.054	1.6	25	30	BK
619487^	12	4	7	0.089	30	45	0.404	41	90	1.662	2.063	0.054	1.6	20	24	BK
619488^	12	3	7	0.089	30	45	0.429	61	122	1.662	2.063	0.054	1.7	25	30	BK
619489^	12	4	7	0.089	30	45	0.468	81	155	1.662	2.063	0.054	1.9	20	24	BK
619492	12	7	7	0.089	30	60	0.589	143	260	1.662	2.063	0.054	2.4	18	21	BK
604283^	12	12	7	0.089	30	60	0.767	244	420	1.662	2.063	0.054	3.1	12	15	BK
620307	12	12	7	0.089	30	60	0.767	244	420	1.662	2.063	0.054	3.1	12	15	BK
10 AWG																
604018	10	2	7	0.113	30	45	0.452	65	125	1.04	1.291	0.05	1.8	35	40	BK
604282	10	2	7	0.113	30	45	0.452	65	137	1.04	1.291	0.05	1.8	35	40	BK
672864^	10	3	7	0.113	30	45	0.481	129	207	1.04	1.291	0.05	1.9	35	40	BK
620764	10	3	7	0.113	30	45	0.481	97	173	1.04	1.291	0.05	1.9	35	40	BK
619088^†	10	4	7	0.113	30	45	0.51	129	211	1.04	1.291	0.05	2	28	32	BK
604410^@	10	4	19	0.113	30	60	0.558	129	236	1.04	1.291	0.05	2.2	28	32	BK
604284^†	10	4	7	0.113	30	60	0.558	129	237	1.04	1.291	0.05	2.2	28	32	BK
619090^†	10	5	7	0.113	30	60	0.591	162	282	1.04	1.291	0.05	2.4	28	32	BK
661859†	10	7	7	0.113	30	60	0.657	227	365	1.04	1.291	0.05	2.6	24	28	BK
628428^	10	7	7	0.113	30	60	0.661	227	364	1.04	1.291	0.05	2.6	24	28	BK
619498^	10	8	7	0.113	30	60	0.716	259	413	1.04	1.291	0.05	2.9	24	28	BK
673084	10	9	7	0.113	30	60	0.769	291	463	1.04	1.291	0.05	3.1	24	28	BK
576597^@†	10	12	19	0.113	30	80	0.904	388	622	1.04	1.291	0.05	3.6	18	20	BK
606676^†	10	12	7	0.113	30	80	0.909	388	634	1.04	1.291	0.05	3.6	18	20	BK
8 AWG																
619504!	8	2	7	0.142	45	60	0.602	103	210	0.653	0.81	0.052	2.4	50	55	BK
619507^	8	3	7	0.142	45	60	0.64	154	300	0.653	0.81	0.052	2.6	50	55	BK
619508^	8	4	7	0.142	45	60	0.7	206	358	0.653	0.81	0.052	2.8	40	44	BK
6 AWG																

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	AWG	No.	strands	inch	mil	mil	inch	lb / 1000ft	lb / 1000ft	Ω /1000ft	Ω /1000ft	Ω/1000ft	inch	Amp	Amp	
619511!	6	2	7	0.178	45	60	0.674	164	290	0.411	0.51	0.051	2.7	65	75	BK
619512^	6	3	7	0.178	45	60	0.718	246	411	0.411	0.51	0.051	2.9	65	75	BK
619514^	6	4	7	0.178	45	60	0.787	327	527	0.411	0.51	0.051	3.1	52	60	BK
4 AWG																
619517^	4	3	7	0.225	45	60	0.811	390	578	0.258	0.32	0.048	3.2	85	95	BK
619518^	4	4	7	0.225	45	80	0.933	521	765	0.258	0.32	0.048	3.7	68	76	BK
2 AWG																
619524	2	3	7	0.283	45	80	0.987	621	886	0.162	0.201	0.045	3.9	115	130	BK
661676	2	4	7	0.283	45	80	1.082	828	1138	0.162	0.201	0.045	5.4	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
! UL listed TC rated (not TC-ER)
@ Combination unilay stranded per ASTM B787
† Polyester flat thread binder
• 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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