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

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 2. 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 66 Fixture Wire
- 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*
- 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 {UL} XX AWG X/C FR-XLPE CDRS 90C PVC JKT 600V TYPE TC-ER SUN. RES. DIRECT BURIAL YEAR {SEQUENTIAL FOOTAGE MARKS} SEQ FEET

Non UL Listed:
SOUTHWIRE XX AWG X/C FR-XLPE CDRS 90C PVC 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	Diameter Over Insulation	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	Allowa Ampa 90°
	AWG	No.	strands	inch	mil	inch	mil	inch	lb / 1000ft	lb / 1000ft	Ω /1000ft	Ω /1000ft	Ω/1000ft	inch	Amp	Am
18 AWG																
620556	18	4	7	0.046	25	0.096	45	0.335	20	61	6.669	8.277	0.036	1.3	-	11
16 AWG																
606895	16	4	7	0.057	25	0.107	45	0.362	32	79	4.181	5.189	0.033	1.4	-	14
623533	16	7	7	0.057	25	0.107	45	0.425	56	120	4.181	5.189	0.033	1.7	-	13
623535	16	9	7	0.057	25	0.107	45	0.492	72	150	4.181	5.189	0.033	2	-	13
14 AWG																
625291^	14	2	7	0.071	30	0.131	45	0.368	26	71	2.631	3.265	0.058	1.5	20	25
TBA	14	3	7	0.071	30	0.131	45	0.379	39	81	2.631	3.265	0.058	1.5	20	25
624097^	14	4	7	0.071	30	0.131	45	0.424	51	113	2.631	3.265	0.058	1.7	16	20
TBA	14	5	7	0.071	30	0.131	45	0.45	66	125	2.631	3.265	0.058	1.8	16	20
TBA	14	6	7	0.071	30	0.131	45	0.489	79	146	2.631	3.265	0.058	2	16	20
TBA	14	7	7	0.071	30	0.131	45	0.489	92	165	2.631	3.265	0.058	2	14	18
TBA	14	8	7	0.071	30	0.131	60	0.56	105	201	2.631	3.265	0.058	2.2	14	18
TBA	14	9	7	0.071	30	0.131	60	0.599	118	223	2.631	3.265	0.058	2.4	14	18
TBA	14	10	7	0.071	30	0.131	60	0.65	131	247	2.631	3.265	0.058	2.6	10	12
624096^	14	12	7	0.071	30	0.131	60	0.692	154	307	2.631	3.265	0.058	2.8	10	12
TBA	14	15	7	0.071	30	0.131	60	0.743	197	350	2.631	3.265	0.058	3	10	12
662633^	14	19	7	0.071	30	0.131	60	0.805	243	455	2.631	3.265	0.058	3.2	10	12
TBA	14	20	7	0.071	30	0.131	60	0.822	263	451	2.631	3.265	0.058	3.3	10	12
TBA	14	25	7	0.071	30	0.131	80	0.952	328	585	2.631	3.265	0.058	3.8	9	11
TBA	14	30	7	0.071	30	0.131	80	1.006	394	686	2.631	3.265	0.058	5	9	11
TBA	14	37	7	0.071	30	0.131	80	1.083	486	827	2.631	3.265	0.058	5.4	8	10
12 AWG																
TBA	12	2	7	0.089	30	0.149	45	0.394	40	81	1.662	2.063	0.054	1.6	25	30
620661	12	2	7	0.089	30	0.149	45	0.404	41	91	1.662	2.063	0.054	1.6	25	30
TBA	12	3	7	0.089	30	0.149	45	0.418	61	110	1.662	2.063	0.054	1.7	25	30
607613^	12	4	7	0.089	30	0.149	45	0.468	81	153	1.662	2.063	0.054	1.9	20	24
620722^	12	4	7	0.089	30	0.149	45	0.474	81	154	1.662	2.063	0.054	1.9	20	24
TBA	12	5	7	0.089	30	0.149	45	0.498	101	169	1.662	2.063	0.054	2	20	24
TBA	12	6	7	0.089	30	0.149	60	0.573	121	213	1.662	2.063	0.054	2.3	20	24
607615^	12	7	7	0.089	30	0.149	60	0.589	143	262	1.662	2.063	0.054	2.4	18	21
TBA	12	8	7	0.089	30	0.149	60	0.619	162	272	1.662	2.063	0.054	2.5	18	21
621363	12	7	7	0.089	30	0.149	60	0.637	163	293	1.662	2.063	0.054	2.5	18	21
TBA	12	9	7	0.089	30	0.149	60	0.664	182	303	1.662	2.063	0.054	2.7	18	21
TBA	12	10	7	0.089	30	0.149	60	0.722	202	335	1.662	2.063	0.054	2.9	12	15
607650^†	12	4	7	0.089	30	0.149	60	0.762	244	424	1.662	2.063	0.054	3	20	24
620554^	12	12	7	0.089	30	0.149	60	0.767	244	420	1.662	2.063	0.054	3.1	12	15
622458	12	15	7	0.089	30	0.149	80	0.861	305	532	1.662	2.063	0.054	3.4	12	15
TBA	12	19	7	0.089	30	0.149	80	0.911	384	621	1.662	2.063	0.054	3.6	12	15

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	AWG	No.	strands	inch	mil	inch	mil	inch	lb / 1000ft	lb / 1000ft	Ω /1000ft	Ω /1000ft	Ω/1000ft	inch	Amp	Am
TBA	12	20	7	0.089	30	0.149	80	0.957	404	655	1.662	2.063	0.054	3.8	12	15
TBA	12	25	7	0.089	30	0.149	80	1.06	505	801	1.662	2.063	0.054	5.3	11	14
TBA	12	30	7	0.089	30	0.149	80	1.121	606	943	1.662	2.063	0.054	5.6	11	14
TBA	12	37	7	0.089	30	0.149	80	1.209	747	1141	1.662	2.063	0.054	6	10	12
10 AWG																
618887^	10	2	7	0.113	30	0.173	45	0.452	65	137	1.04	1.291	0.05	1.8	35	40
619086	10	2	7	0.113	30	0.173	45	0.452	65	125	1.04	1.291	0.05	1.8	35	40
620546^	10	3	7	0.113	30	0.173	45	0.481	97	173	1.04	1.291	0.05	1.9	35	40
607960	10	4	7	0.113	30	0.173	60	0.553	129	231	1.04	1.291	0.05	2.2	28	32
618888^	10	4	7	0.113	30	0.173	60	0.558	129	229	1.04	1.291	0.05	2.2	28	32
628424^	10	5	7	0.113	30	0.173	60	0.608	162	277	1.04	1.291	0.05	2.4	28	32
TBA	10	6	7	0.113	30	0.173	60	0.645	194	302	1.04	1.291	0.05	2.6	28	32
619089^†	10	7	7	0.113	30	0.173	60	0.657	227	365	1.04	1.291	0.05	2.6	24	28
TBA	10	8	7	0.113	30	0.173	60	0.699	259	388	1.04	1.291	0.05	2.8	24	28
TBA	10	9	7	0.113	30	0.173	60	0.751	291	432	1.04	1.291	0.05	3	24	28
TBA	10	10	7	0.113	30	0.173	60	0.818	323	479	1.04	1.291	0.05	3.3	18	20
607647^†	10	12	7	0.113	30	0.173	80	0.886	388	633	1.04	1.291	0.05	3.5	18	20
619091^†	10	12	7	0.113	30	0.173	80	0.909	388	634	1.04	1.291	0.05	3.6	18	20
TBA	10	15	7	0.113	30	0.173	80	0.981	485	726	1.04	1.291	0.05	3.9	18	20
TBA	10	19	7	0.113	30	0.173	80	1.031	614	892	1.04	1.291	0.05	5.2	18	20
TBA	10	20	7	0.113	30	0.173	80	1.085	646	940	1.04	1.291	0.05	5.4	18	20
TBA	10	24	7	0.113	30	0.173	80	1.204	776	1117	1.04	1.291	0.05	6	16	18
TBA	10	25	7	0.113	30	0.173	80	1.204	808	1157	1.04	1.291	0.05	6	16	18
TBA	10	30	7	0.113	30	0.173	80	1.275	970	1367	1.04	1.291	0.05	6.4	16	18
TBA	10	37	7	0.113	30	0.173	80	1.377	1196	1660	1.04	1.291	0.05	6.9	14	16
8 AWG																
608026	8	2	7	0.142	45	0.232	60	0.592	103	198	0.653	0.81	0.052	2.4	50	55
620553	8	2	7	0.142	45	0.232	60	0.602	103	219	0.653	0.81	0.052	2.4	50	55
660713	8	3	7	0.142	45	0.232	60	0.64	154	291	0.653	0.81	0.052	2.6	50	55
608059	8	4	7	0.142	45	0.232	60	0.688	206	345	0.653	0.81	0.052	2.8	40	44
604092^	8	4	7	0.142	45	0.232	60	0.7	206	368	0.653	0.81	0.052	2.8	40	44
607652^	8	4	7	0.142	45	0.232	60	0.7	206	360	0.653	0.81	0.052	2.8	40	44
6 AWG																
624095	6	4	7	0.178	45	0.268	60	0.787	327	532	0.411	0.51	0.051	3.1	52	60

All dimensions are nominal and subject to normal manufacturing tolerances
◊ Cable marked with this symbol is a standard stock item
^ UL listed part number
† 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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