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 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 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 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 {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	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 At 60°C	Allowable Ampacity 75°C	Allowable Ampacity 90°C
	AWG	No.	mil	mil	inch	lb / 1000ft	lb / 1000ft	Ω /1000ft	Ω /1000ft	Ω/1000ft	inch	Amp	Amp	Amp
16 AWG														
606895	16	4	25	45	0.358	32	78	4.181	5.037	0.033	1.4	-	-	14
623533	16	7	25	45	0.420	56	119	4.181	5.037	0.033	1.6	-	-	12
14 AWG														
625291^	14	2	30	45	0.357	25	68	2.631	3.170	0.058	1.4	15	20	25
TBA	14	3	30	45	0.372	38	85	2.631	3.170	0.058	1.4	15	20	25
624097^	14	4	30	45	0.414	51	110	2.631	3.170	0.058	1.6	12	16	20
TBA	14	5	30	45	0.443	63	122	2.631	3.170	0.058	1.7	12	16	20
TBA	14	6	30	45	0.482	76	143	2.631	3.170	0.058	1.9	12	16	20
TBA	14	7	30	45	0.482	89	161	2.631	3.170	0.058	1.9	10	14	17
TBA	14	8	30	60	0.552	102	199	2.631	3.170	0.058	2.2	10	14	17
TBA	14	9	30	60	0.591	115	222	2.631	3.170	0.058	2.3	10	14	17
TBA	14	10	30	60	0.642	127	245	2.631	3.170	0.058	2.5	7	10	12
624096^	14	12	30	60	0.669	153	298	2.631	3.170	0.058	2.6	7	10	12
TBA	14	15	30	60	0.734	191	343	2.631	3.170	0.058	2.9	7	10	12
662633^	14	19	30	60	0.778	243	441	2.631	3.170	0.058	3.1	7	10	12
TBA	14	20	30	60	0.812	255	442	2.631	3.170	0.058	3.2	7	10	12
TBA	14	25	30	80	0.942	319	577	2.631	3.170	0.058	3.7	6	9	11
TBA	14	30	30	80	0.995	383	674	2.631	3.170	0.058	3.9	6	9	11
TBA	14	37	30	80	1.072	473	810	2.631	3.170	0.058	5.3	6	8	10
12 AWG														
TBA	12	2	30	45	0.388	40	87	1.662	2.002	0.054	1.5	20	25	30
620661	12	2	30	45	0.392	40	88	1.662	2.002	0.054	1.5	20	25	30
TBA	12	3	30	45	0.411	61	115	1.662	2.002	0.054	1.6	20	25	30
607613^	12	4	30	45	0.457	81	148	1.662	2.002	0.054	1.8	16	20	24
620722^	12	4	30	45	0.459	81	149	1.662	2.002	0.054	1.8	16	20	24
TBA	12	5	30	45	0.491	101	168	1.662	2.002	0.054	1.9	16	20	24
TBA	12	6	30	60	0.566	122	216	1.662	2.002	0.054	2.2	16	20	24
607615^	12	7	30	60	0.583	142	259	1.662	2.002	0.054	2.3	14	17	21
TBA	12	8	30	60	0.611	162	273	1.662	2.002	0.054	2.4	14	17	21
608133	12	9	30	60	0.657	183	312	1.662	2.002	0.054	2.6	14	17	21
TBA	12	10	30	60	0.714	203	337	1.662	2.002	0.054	2.8	10	12	15
620554^	12	12	30	60	0.742	244	410	1.662	2.002	0.054	2.9	10	12	15
607650^	12	4	30	60	0.746	244	412	1.662	2.002	0.054	2.9	16	20	24
622458	12	15	30	80	0.861	305	532	1.662	2.002	0.054	3.4	10	12	15
TBA	12	19	30	80	0.902	386	626	1.662	2.002	0.054	3.6	10	12	15
TBA	12	20	30	80	0.947	406	658	1.662	2.002	0.054	3.7	10	12	15
TBA	12	25	30	80	1.050	508	805	1.662	2.002	0.054	5.2	9	11	13
TBA	12	30	30	80	1.110	610	945	1.662	2.002	0.054	5.5	9	11	13
TBA	12	37	30	80	1.198	752	1142	1.662	2.002	0.054	5.9	8	10	12

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	AWG	No.	mil	mil	inch	lb / 1000ft	lb / 1000ft	Ω /1000ft	Ω /1000ft	Ω/1000ft	inch	Amp	Amp	Amp
10 AWG														
619086	10	2	30	45	0.444	64	122	1.040	1.253	0.050	1.7	30	35	40
618887^	10	2	30	45	0.448	64	136	1.040	1.253	0.050	1.7	30	35	40
620546^	10	3	30	45	0.467	97	169	1.040	1.253	0.050	1.8	30	35	40
607960	10	4	30	45	0.506	129	211	1.040	1.253	0.050	2.0	24	28	32
618888^	10	4	30	60	0.552	129	227	1.040	1.253	0.050	2.2	24	28	32
628424^	10	5	30	60	0.591	161	270	1.040	1.253	0.050	2.3	24	28	32
619089^	10	7	30	60	0.640	226	354	1.040	1.253	0.050	2.5	21	24	28
TBA	10	6	30	60	0.641	194	304	1.040	1.253	0.050	2.5	24	28	32
TBA	10	8	30	60	0.694	258	389	1.040	1.253	0.050	2.7	21	24	28
TBA	10	9	30	60	0.746	291	435	1.040	1.253	0.050	2.9	21	24	28
TBA	10	10	30	60	0.814	323	482	1.040	1.253	0.050	3.2	15	17	20
607647^	10	12	30	80	0.878	388	615	1.040	1.253	0.050	3.5	15	17	20
619091^	10	12	30	80	0.887	388	624	1.040	1.253	0.050	3.5	15	17	20
TBA	10	15	30	80	0.976	485	731	1.040	1.253	0.050	3.9	15	17	20
TBA	10	19	30	80	1.027	614	896	1.040	1.253	0.050	5.1	15	17	20
TBA	10	20	30	80	1.080	646	944	1.040	1.253	0.050	5.4	15	17	20
TBA	10	24	30	80	1.200	776	1121	1.040	1.253	0.050	6.0	13	15	18
TBA	10	25	30	80	1.200	808	1160	1.040	1.253	0.050	6.0	13	15	18
TBA	10	30	30	80	1.270	970	1368	1.040	1.253	0.050	6.3	13	15	18
TBA	10	37	30	80	1.373	1196	1659	1.040	1.253	0.050	6.8	12	14	16
8 AWG														
608026	8	2	45	60	0.584	102	196	0.653	0.786	0.052	2.3	40	50	55
620553	8	2	45	60	0.598	102	218	0.653	0.786	0.052	2.3	40	50	55
660713	8	3	45	60	0.635	154	286	0.653	0.786	0.052	2.5	40	50	55
608059	8	4	45	60	0.678	205	342	0.653	0.786	0.052	2.7	32	40	44
607652^	8	4	45	60	0.694	205	354	0.653	0.786	0.052	2.7	32	40	44
604092^	8	4	45	60	0.694	205	365	0.653	0.786	0.052	2.7	32	40	44
6 AWG														
624095	6	4	45	60	0.781	327	526	0.411	0.495	0.051	3.1	44	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

* 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.