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

Control Cable 600 Volt Copper Conductors, Flame Retardant Cross Linked Polyethylene (FR-XLPE) Insulation Shielded 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), 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. **Shield:** 5 mils copper Longitudinally-Applied Corrugated Tape (LCT) shield
6. **Rip Cord:** Rip cord for ease of jacket removal
7. **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*
- 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 FRXLP SHIELDED TYPE TC 600V PVC SUN. RES. DIRECT BURIAL YEAR{SEQUENTIAL FOOTAGE MARKS} SEQ FEET

Non UL Listed

SOUTHWIRE XX AWG X/C FRXLP SHIELDED TYPE TC 600V PVC 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	
14 AWG																
TBA	14	2	7	0.071	30	45	0.358	73	109	2.631	3.265	0.058	2.5	20	25	BK
TBA	14	3	7	0.071	30	45	0.379	89	131	2.631	3.265	0.058	2.7	20	25	BK
TBA	14	5	7	0.071	30	45	0.45	127	186	2.631	3.265	0.058	3.2	16	20	BK
TBA	14	6	7	0.071	30	45	0.489	146	213	2.631	3.265	0.058	3.4	16	20	BK
604059^	14	4	7	0.071	30		0.499	85	165	2.631	3.265	0.058	3.5	16	20	BK
TBA	14	8	7	0.071	30	60	0.56	178	274	2.631	3.265	0.058	3.9	14	18	BK
TBA	14	9	7	0.071	30	60	0.599	197	302	2.631	3.265	0.058	4.2	14	18	BK
604057^	14	7	7	0.071	30		0.605	129	249	2.631	3.265	0.058	4.2	14	18	BK
TBA	14	10	7	0.071	30	60	0.65	218	334	2.631	3.265	0.058	4.6	10	12	BK
TBA	14	15	7	0.071	30	60	0.743	297	450	2.631	3.265	0.058	5.2	10	12	BK
604056^	14	12	7	0.071	30		0.76	204	384	2.631	3.265	0.058	5.3	10	12	BK
TBA	14	19	7	0.071	30	60	0.781	355	533	2.631	3.265	0.058	5.5	10	12	BK
TBA	14	20	7	0.071	30	60	0.822	375	563	2.631	3.265	0.058	5.8	10	12	BK
TBA	14	25	7	0.071	30	80	0.952	454	711	2.631	3.265	0.058	6.7	9	11	BK
TBA	14	30	7	0.071	30	80	1.006	528	820	2.631	3.265	0.058	7	9	11	BK
TBA	14	37	7	0.071	30	80	1.083	631	972	2.631	3.265	0.058	7.6	8	10	BK
12 AWG																
TBA	12	2	7	0.089	30	45	0.394	93	134	1.662	2.063	0.054	2.8	25	30	BK
TBA	12	3	7	0.089	30	45	0.418	117	166	1.662	2.063	0.054	2.9	25	30	BK
TBA	12	4	7	0.089	30	45	0.457	143	201	1.662	2.063	0.054	3.2	20	24	BK
TBA	12	5	7	0.089	30	45	0.498	169	237	1.662	2.063	0.054	3.5	20	24	BK
TBA	12	6	7	0.089	30	60	0.573	196	288	1.662	2.063	0.054	4	20	24	BK
TBA	12	7	7	0.089	30	60	0.573	216	314	1.662	2.063	0.054	4	18	21	BK
TBA	12	8	7	0.089	30	60	0.619	244	354	1.662	2.063	0.054	4.3	18	21	BK
TBA	12	9	7	0.089	30	60	0.664	271	392	1.662	2.063	0.054	4.6	18	21	BK
TBA	12	10	7	0.089	30	60	0.722	299	432	1.662	2.063	0.054	5.1	12	15	BK
TBA	12	15	7	0.089	30	80	0.868	416	622	1.662	2.063	0.054	6.1	12	15	BK
624457^	12	12	7	0.089	30	80	0.9	300	556	1.662	2.063	0.054	6.3	12	15	BK
TBA	12	19	7	0.089	30	80	0.911	504	741	1.662	2.063	0.054	6.4	12	15	BK
TBA	12	20	7	0.089	30	80	0.957	531	782	1.662	2.063	0.054	6.7	12	15	BK
TBA	12	25	7	0.089	30	80	1.06	647	943	1.662	2.063	0.054	7.4	11	14	BK
TBA	12	30	7	0.089	30	80	1.121	757	1094	1.662	2.063	0.054	7.8	11	14	BK
TBA	12	37	7	0.089	30	80	1.209	911	1305	1.662	2.063	0.054	8.5	10	12	BK
10 AWG																
629383^	10	2	7	0.113	30	60	0.58	95	194	1.04	1.291	0.05	4.1	35	40	BK
620886	10	3	7	0.113	30	60	0.602	136	256	1.04	1.291	0.05	4.2	35	40	BK
TBA	10	6	7	0.113	30	60	0.645	280	388	1.04	1.291	0.05	4.5	28	32	BK
604091^	10	4	7	0.113	30	60	0.654	174	315	1.04	1.291	0.05	4.6	28	32	BK
619380!	10	4	7	0.113	30	60	0.658	174	310	1.04	1.291	0.05	4.6	28	32	BK

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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	
TBA	10	8	7	0.113	30	60	0.699	353	482	1.04	1.291	0.05	4.9	24	28	BK
629381^	10	5	7	0.113	30	60	0.704	201	345	1.04	1.291	0.05	4.9	28	32	BK
604096^	10	7	7	0.113	30	60	0.734	268	414	1.04	1.291	0.05	5.1	24	28	BK
TBA	10	10	7	0.113	30	60	0.818	435	591	1.04	1.291	0.05	5.7	18	20	BK
629379^	10	9	7	0.113	30	80	0.907	347	586	1.04	1.291	0.05	6.3	24	28	BK
TBA	10	15	7	0.113	30	80	0.981	615	856	1.04	1.291	0.05	6.9	18	20	BK
604093^	10	12	7	0.113	30	80	1.005	445	706	1.04	1.291	0.05	7	18	20	BK
TBA	10	19	7	0.113	30	80	1.031	752	1030	1.04	1.291	0.05	7.2	18	20	BK
TBA	10	20	7	0.113	30	80	1.085	792	1086	1.04	1.291	0.05	7.6	18	20	BK
TBA	10	25	7	0.113	30	80	1.204	972	1321	1.04	1.291	0.05	8.4	16	18	BK
TBA	10	30	7	0.113	30	80	1.275	1144	1541	1.04	1.291	0.05	8.9	16	18	BK
TBA	10	37	7	0.113	30	80	1.377	1386	1850	1.04	1.291	0.05	9.6	14	16	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
! Tinned copper conductor per ASTM B33
* 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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