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

Control Cable 600 Volt Copper Conductors, Flame Retardant Cross Linked Polyethylene (FR-XLPE) Insulation Thermoplastic SOLONON® Low Smoke Zero Halogen (LSZH-TP) 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. **Rip Cord:** Rip cord for ease of jacket removal
6. **Overall Jacket:** Thermoplastic SOLONON® Low Smoke Zero Halogen (LSZH-TP) 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
- 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 XHHW-2 CDRS 90°C LSZH JKT TYPE TC SUNLIGHT RESISTANT DIRECT BURIAL 600 VOLTS {MM/DD/YYYY} {SEQUENTIAL FOOTAGE MARKS} SEQ FEET

Non UL Listed

SOUTHWIRE XX AWG X/C FR-XLPE CDRS 90C LSZH JKT 600V SUNLIGHT RESISTANT SUITABLE FOR 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																
619990	14	2	7	0.071	30	45	0.368	26	72	2.631	3.265	0.058	1.5	20	25	BK
TBA	14	3	7	0.071	30	45	0.379	39	81	2.631	3.265	0.058	1.5	20	25	BK
TBA	14	4	7	0.071	30	45	0.413	53	103	2.631	3.265	0.058	1.7	16	20	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
660991^	14	7	7	0.071	30	45	0.508	90	180	2.631	3.265	0.058	2	14	18	BK
TBA	14	8	7	0.071	30	60	0.56	105	201	2.631	3.265	0.058	2.2	14	18	BK
TBA	14	9	7	0.071	30	60	0.599	118	223	2.631	3.265	0.058	2.4	14	18	BK
TBA	14	10	7	0.071	30	60	0.65	131	247	2.631	3.265	0.058	2.6	10	12	BK
TBA	14	12	7	0.071	30	60	0.671	158	287	2.631	3.265	0.058	2.7	10	12	BK
TBA	14	15	7	0.071	30	60	0.743	197	350	2.631	3.265	0.058	3	10	12	BK
TBA	14	19	7	0.071	30	60	0.781	249	427	2.631	3.265	0.058	3.1	10	12	BK
TBA	14	20	7	0.071	30	60	0.822	263	451	2.631	3.265	0.058	3.3	10	12	BK
TBA	14	25	7	0.071	30	80	0.952	328	585	2.631	3.265	0.058	3.8	9	11	BK
TBA	14	30	7	0.071	30	80	1.006	394	686	2.631	3.265	0.058	5	9	11	BK
TBA	14	37	7	0.071	30	80	1.083	486	827	2.631	3.265	0.058	5.4	8	10	BK
12 AWG																
457262^	12	2	7	0.089	30	45	0.404	41	93	1.662	2.063	0.054	1.6	25	30	BK
TBA	12	3	7	0.089	30	45	0.418	61	110	1.662	2.063	0.054	1.7	25	30	BK
TBA	12	4	7	0.089	30	45	0.457	81	139	1.662	2.063	0.054	1.8	20	24	BK
TBA	12	5	7	0.089	30	45	0.498	101	169	1.662	2.063	0.054	2	20	24	BK
TBA	12	6	7	0.089	30	60	0.573	121	213	1.662	2.063	0.054	2.3	20	24	BK
TBA	12	7	7	0.089	30	60	0.573	141	239	1.662	2.063	0.054	2.3	18	21	BK
TBA	12	8	7	0.089	30	60	0.619	162	272	1.662	2.063	0.054	2.5	18	21	BK
TBA	12	9	7	0.089	30	60	0.664	182	303	1.662	2.063	0.054	2.7	18	21	BK
TBA	12	10	7	0.089	30	60	0.722	202	335	1.662	2.063	0.054	2.9	12	15	BK
457264^	12	12	7	0.089	30	60	0.762	244	424	1.662	2.063	0.054	3	12	15	BK
TBA	12	15	7	0.089	30	80	0.868	303	509	1.662	2.063	0.054	3.5	12	15	BK
TBA	12	19	7	0.089	30	80	0.911	384	621	1.662	2.063	0.054	3.6	12	15	BK
TBA	12	20	7	0.089	30	80	0.957	404	655	1.662	2.063	0.054	3.8	12	15	BK
TBA	12	25	7	0.089	30	80	1.06	505	801	1.662	2.063	0.054	5.3	11	14	BK
TBA	12	30	7	0.089	30	80	1.121	606	943	1.662	2.063	0.054	5.6	11	14	BK
TBA	12	37	7	0.089	30	80	1.209	747	1141	1.662	2.063	0.054	6	10	12	BK
10 AWG																
TBA	10	2	7	0.113	30	45	0.442	65	111	1.04	1.291	0.05	1.8	35	40	BK
603616	10	3	7	0.113	30	45	0.477	97	174	1.04	1.291	0.05	1.9	35	40	BK
660988^	10	4	7	0.113	30	60	0.562	129	234	1.04	1.291	0.05	2.2	28	32	BK
TBA	10	5	7	0.113	30	60	0.593	162	256	1.04	1.291	0.05	2.4	28	32	BK
TBA	10	6	7	0.113	30	60	0.645	194	302	1.04	1.291	0.05	2.6	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	7	7	0.113	30	60	0.645	226	341	1.04	1.291	0.05	2.6	24	28	BK
TBA	10	8	7	0.113	30	60	0.699	259	388	1.04	1.291	0.05	2.8	24	28	BK
TBA	10	9	7	0.113	30	60	0.751	291	432	1.04	1.291	0.05	3	24	28	BK
TBA	10	10	7	0.113	30	60	0.818	323	479	1.04	1.291	0.05	3.3	18	20	BK
603612	10	12	7	0.113	30	80	0.909	388	642	1.04	1.291	0.05	3.6	18	20	BK
TBA	10	15	7	0.113	30	80	0.981	485	726	1.04	1.291	0.05	3.9	18	20	BK
TBA	10	19	7	0.113	30	80	1.031	614	892	1.04	1.291	0.05	5.2	18	20	BK
TBA	10	20	7	0.113	30	80	1.085	646	940	1.04	1.291	0.05	5.4	18	20	BK
TBA	10	25	7	0.113	30	80	1.204	808	1157	1.04	1.291	0.05	6	16	18	BK
TBA	10	30	7	0.113	30	80	1.275	970	1367	1.04	1.291	0.05	6.4	16	18	BK
TBA	10	37	7	0.113	30	80	1.377	1196	1660	1.04	1.291	0.05	6.9	14	16	BK
8 AWG																
457261^	8	2	7	0.142	45	60	0.602	103	205	0.653	0.81	0.052	2.4	50	55	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
* 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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