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

Control Cable 600 Volt Copper Conductors, Flame Retardant Cross Linked Polyethylene (FR-XLPE) Insulation XHHW-2 Shielded 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 strands 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:** Polyester flat thread binder tape or polypropylene binder tape applied for cables with more than 5 conductors
5. **Shielding:** 5 mil copper Longitudinally-Applied Corrugated Tape (LCT) shield
6. **Rip Cord:** Rip cord for ease of jacket removal
7. **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
- 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 FRXLP SHIELDED TYPE TC-ER 600V PVC SUN. RES. YEAR {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	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	inch	lb / 1000ft	lb / 1000ft	Ω /1000ft	Ω /1000ft	Ω/1000ft	inch	Amp	Amp	
14 AWG															
618807^	14	2	7	0.071	30	0.445	56	120	2.631	3.265	0.058	3.1	20	25	BK
618808^	14	4	7	0.071	30	0.499	85	169	2.631	3.265	0.058	3.5	16	20	BK
618809^	14	7	7	0.071	30	0.605	123	249	2.631	3.265	0.058	4.2	14	18	BK
618810^	14	12	7	0.071	30	0.755	187	366	2.631	3.265	0.058	5.3	10	12	BK
618811^	14	19	7	0.071	30	0.91	277	550	2.631	3.265	0.058	6.4	10	12	BK
12 AWG															
619096^	12	2	7	0.089	30	0.496	74	147	1.662	2.063	0.054	3.5	25	30	BK
664170	12	3	7	0.089	30	0.557	92	180	1.662	2.063	0.054	3.9	25	30	BK
618813^	12	4	7	0.089	30	0.571	81	193	1.662	2.063	0.054	4	20	24	BK
618814^	12	7	7	0.089	30	0.658	176	318	1.662	2.063	0.054	4.6	18	21	BK
619611^	12	12	7	0.089	30	0.905	300	557	1.662	2.063	0.054	6.3	12	15	BK
10 AWG															
618815^	10	2	7	0.113	30	0.576	98	202	1.04	1.291	0.05	4	35	40	BK
618816^	10	4	7	0.113	30	0.649	169	286	1.04	1.291	0.05	4.5	28	32	BK
661705!	10	4	7	0.113	30	0.654	187	320	1.04	1.291	0.05	4.6	28	32	BK
619613^	10	5	7	0.113	30	0.704	201	329	1.04	1.291	0.05	4.9	28	32	BK
618817^	10	7	7	0.113	30	0.728	268	410	1.04	1.291	0.05	5.1	24	28	BK
661717!	10	7	7	0.113	30	0.757	289	466	1.04	1.291	0.05	5.3	24	28	BK
619616^	10	9	7	0.113	30	0.907	347	597	1.04	1.291	0.05	6.3	24	28	BK
619618^	10	12	7	0.113	30	0.982	444	701	1.04	1.291	0.05	6.9	18	20	BK
4 AWG															
662547^![a]	4	4	7	0.225	45	1.054	592	885	0.258	0.32	0.048	7.4	68	76	BK
2 AWG															
619631^	2	3	7	0.283	45	1.083	692	1019	0.162	0.201	0.045	7.6	115	130	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
! Drain wire under LCT shield
[a] M4 color code instead of M1T1/E1
* 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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