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

Control Cable 600 Volt Copper Conductors, Flame Retardant Cross Linked Polyethylene (FR-XLPE) Insulation Shielded With Drain Wire 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. **DrainWire:** Bare copper drain wire
4. **Filler:** Polypropylene filler on cables with 5 or less conductors
5. **Binder:** Polyester flat thread binder tape applied for cables with more than 5 conductors
6. **Shielding:** 5 mil copper Helically-Applied Tape shield
7. **Rip Cord:** Rip cord for ease of jacket removal
8. **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
- VW-1 (Vertical-Wire) Flame Test

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SAMPLE PRINT LEGEND:

UL Listed

{SQFTG} SOUTHWIRE E75755 {UL} XX AWG X/C XHHW-2 CDRS 90°C PVC JKT TYPE TC-ER SHIELDED 600V SUN. RES. DIRECT BURIAL {YYYY}

Non UL Listed

{SQFTG} SOUTHWIRE XX AWG X/C FR-XLPE CDRS 90°C PVC JKT SHIELDED 600V SUN. RES. DIRECT BURIAL {YYYY}

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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	
12 AWG																
668743^	12	2	7	0.089	30	45	0.424	85	137	1.662	2.063	0.054	3	25	30	BK
668737^	12	4	7	0.089	30	45	0.488	129	201	1.662	2.063	0.054	3.4	20	24	BK
668739^	12	12	7	0.089	30	60	0.787	306	484	1.662	2.063	0.054	5.5	12	15	BK
10 AWG																
662657	10	4	7	0.113	30	60	0.578	169	270	1.04	1.291	0.05	4	28	32	BK
606611^	10	4	7	0.113	30	60	0.578	174	280	1.04	1.291	0.05	4	28	32	BK
616767^	10	4	7	0.113	30	60	0.578	170	275	1.04	1.291	0.05	4	28	32	BK
662655^	10	9	7	0.113	30	60	0.789	353	524	1.04	1.291	0.05	5.5	24	28	BK
662652^	10	19	7	0.113	30	80	1.077	692	1026	1.04	1.291	0.05	7.5	18	20	BK
8 AWG																
662622^	8	2	7	0.142	45	60	0.622	155	276	0.653	0.81	0.052	4.4	50	55	BK
668741^	8	4	7	0.142	45	60	0.72	264	428	0.653	0.81	0.052	5	40	44	BK
662185!	8	4	7	0.142	45	60	0.72	267	426	0.653	0.81	0.052	5	40	44	BK
6 AWG																
662629^	6	3	7	0.178	45	60	0.789	307	446	0.411	0.51	0.051	5.5	65	75	BK
662624	6	4	7	0.178	45	60	0.789	389	553	0.411	0.51	0.051	5.5	52	60	BK
4 AWG																
662638^	4	4	7	0.225	45	80	0.953	582	823	0.258	0.32	0.048	6.7	68	76	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 drain wire
* 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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