Multi-Conductor CU 600 V FR-XLPE Drain Wire LCT Shielded Thermoplastic CPE-TP Jacket Power Cable Color Method 1 Table 1

Power or Control Cable 600 Volt Copper Conductors, Cross Linked Polyethylene (XLPE) Insulation and/or XHHW-2, Shielded with Drain Wire, Thermoplastic Chlorinated Polyethylene (CPE-TP) Jacket, Control Cable Conductor Identification Method 1 Table 1. Silicone Free

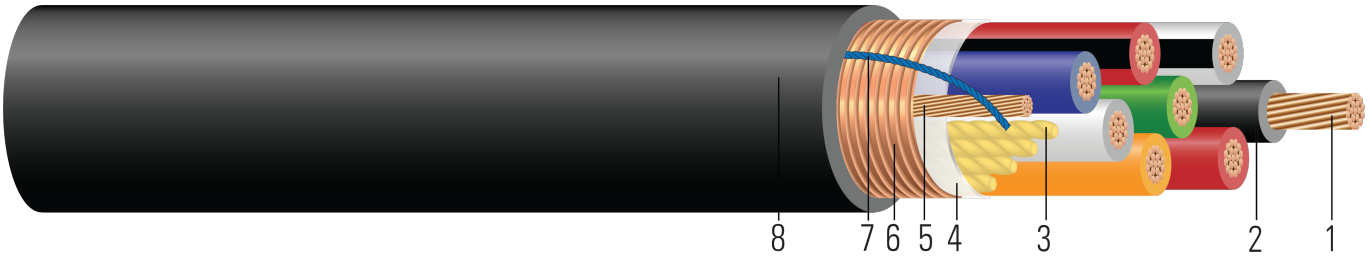


Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

1. **Conductor:** 7 strands class B compressed bare copper per ASTM B3 and B8. Tinned copper available upon request.
2. **Insulation:** Cross Linked Polyethylene (XLPE) Type XHHW-2 when UL listed
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. **Drain Wire:** Bare copper drain wire. Tinned copper drain wire available upon request.
6. **Shield:** 5 mils copper Longitudinally-Applied Corrugated Tape (LCT) shield
7. **Rip Cord:** Rip cord for ease of jacket removal
8. **Overall Jacket:** Thermoplastic Chlorinated Polyethylene (CPE-TP) Jacket

APPLICATIONS AND FEATURES:

Southwire's 600 Volt Type TC-ER[1] power or 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. For uses in Class I, II, and III, Division 2 hazardous locations per NEC Article 501 and 502. Constructions with 3 or more conductors are listed for exposed runs (TC-ER) per NEC 336.10.

1 Only TC or TC-ER rated when in UL listed Stock Numbers

SPECIFICATIONS:

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- 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-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

SAMPLE PRINT LEGEND:

SOUTHWIRE XX AWG XX/C FR-XLPE CDRS 90C CPE JKT SHIELDED 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	Cond. Strands	Diameter Over Cond.	Insul. Thickness	Diameter Over Insulation	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	Allowab Ampaci 90°C
	AWG	No.	strands	inch	mil	inch	mil	inch	lb / 1000ft	lb / 1000ft	Ω /1000ft	Ω /1000ft	Ω/1000ft	inch	Amp	Amp
14 AWG																
622094	14	7	7	0.071	30	0.131	60	0.627	137	268	2.631	3.265	0.058	4.4	14	18
12 AWG																
627829	12	7	7	0.089	30	0.149	60	0.685	194	343	1.662	2.063	0.054	4.8	18	21
627845	12	12	7	0.089	30	0.149	80	0.905	310	559	1.662	2.063	0.054	6.3	12	15
10 AWG																
622095!	10	2	7	0.113	30	0.173	60	0.58	124	230	1.04	1.291	0.05	4.1	35	40
622686	10	2	7	0.113	30	0.173	60	0.58	116	223	1.04	1.291	0.05	4.1	35	40
622685	10	4	7	0.113	30	0.173	60	0.654	187	316	1.04	1.291	0.05	4.6	28	32
622096	10	7	7	0.113	30	0.173	60	0.757	297	469	1.04	1.291	0.05	5.3	24	28
8 AWG																
668978	8	2	7	0.142	45	0.232	60	0.692	168	312	0.653	0.81	0.052	4.8	50	55
622682	8	4	7	0.142	45	0.232	80	0.79	276	458	0.653	0.81	0.052	5.5	40	44
6 AWG																
622679	6	2	7	0.178	45	0.268	80	0.764	234	390	0.411	0.51	0.051	5.3	65	75
622503	6	4	7	0.178	45	0.268	80	0.917	403	654	0.411	0.51	0.051	6.4	52	60
4 AWG																
668982!	4	2	7	0.225	45	0.315	80	0.898	333	554	0.258	0.32	0.048	6.3	85	95

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 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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