

2/C, 3/C, 4/C CU 600 V FR-XLPE Shielded PVC Jacket Power Cable Color Method 1 Table 2

Type TC-ER Power Cable 600 or 1000 Volt Three Conductor Copper, Fire Retardant Cross-Linked Polyethylene (FR-XLPE) insulation Shielded Polyvinyl Chloride (PVC) Jacket. Conductor Identification Method 1 Table 2



Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

1. **Conductor:** Class B compressed stranded bare copper per ASTM B3 and ASTM B8
2. **Insulation:** Fire Retardant Cross Linked Polyethylene (FR-XLPE)
3. **Filler:** Paper or Polypropylene filler
4. **Binder:** Polyester flat thread binder tape
5. **Shield:** 5 mils tape 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 Standard Specification for 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-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)

SAMPLE PRINT LEGEND:

SOUTHWIRE E75755 {UL} XX AWG X/C FR-XLPE TYPE TC-ER CDRS 90C SHIELDED PVC JKT 600V SUN RES DIRECT BURIAL
{YYYY} {SEQUENTIAL FOOTAGE MARKS} SEQ FEET



Table 1 – Physical and Electrical Data

Cond. Size	Cond. Number	Cond. Strands	Diameter Over Cond.	Insul. Thickness	Diameter Over Insulation	Jacket Thickness	Approx. OD	Approx. Weight	DC Resistance @ 25°C	AC Resistance @ 90°C	Min Bending Radius	Allowable Ampacity At 60°C *	Allowable Ampacity 75°C *	Allowable Ampacity 90°C *
AWG	No.	strands	inch	mil	inch	mil	inch	lb /1000ft	Ω /1000ft	Ω /1000ft	inch	Amp	Amp	Amp
8	3	7	0.139	45	0.229	60	0.615	275	0.652	0.815	2.5	40	50	55

All dimensions are nominal and subject to normal manufacturing tolerances

◊ Cable marked with this symbol is a standard stock item

