

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

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 with 1 Bare CU Ground. Conductor Identification Method 1 Table 1



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. **Grounding Conductor:** Class B compressed stranded bare copper per ASTM B3 and ASTM B8
4. **Filler:** Paper or Polypropylene filler
5. **Binder:** Polyester flat thread binder tape
6. **Shield:** 5 mils 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 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 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)



**SAMPLE PRINT LEGEND:**

SOUTHWIRE E75755 {UL} X AWG X/C FR-XLPE CDRS WG 90C PVC JKT TYPE TC-ER SHIELDED 600V SUN. RES. DIRECT BURIAL YEAR {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                       |
| 1/0        | 3            | 19            | 0.360               | 55               | 0.470                    | 80               | 1.175      | 1317           | 0.102                | 0.128                | 5.9                | 125                          | 150                       | 170                       |

All dimensions are nominal and subject to normal manufacturing tolerances

∅ Cable marked with this symbol is a standard stock item

† Ampacities are based on Table 310.15 (B)(16) of the NEC, 2017 Edition. Ampacities of insulated conductors rated up to and including 2000 Volts, based on ambient temperature of 30°C (86°F)

^ UL Listed part number

