



Multi-Conductor CU 600 V FR-XLPE Al Foil Shield Thermoset CPE-TS Jacket Power Cable Color Method 1 Table 1

600 Volt Copper, Fire Retardant Cross-Linked Polyethylene (FR-XLPE) insulation Aluminum Foil Shield Thermoset Chlorinated Polyethylene (CPE-TS) Jacket. Sunlight Resistant - For Direct Burial. Conductor Identification Method 1 Table 1



Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

1. **Conductor:** Class B compressed stranded bare or tinned copper per ASTM B3, ASTM B33, ASTM B8
2. **Insulation:** Fire Retardant Cross-Linked Polyethylene (FR-XLPE)
3. **Filler:** Paper or Polypropylene filler
4. **Drain Wire:** Tinned 22awg drain wire
5. **Shield:** Aluminum foil
6. **Rip Cord:** Rip cord for ease of jacket removal
7. **Overall Jacket:** Black Thermoset Chlorinated Polyethylene (CPE-TS) 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.

SPECIFICATIONS:

- ASTM B33 Standard Specification for Tin-Coated Soft or Annealed Copper Wire
- ICEA S-95-658 (NEMA WC70) Power Cables Rated 2000 Volts or Less for the Distribution of Electrical Energy

SAMPLE PRINT LEGEND:

{SQFTG} SOUTHWIRE{R} XX AWG CU X/C FR-XLPE CDRS E1 SHIELDED 90{D}C WET OR DRY CPE-TS JKT 600V SUN RES



Table 1 – Physical and Electrical Data

| Stock Number | Cond. Size | Cond. Number | Cond. Strands | Diameter Over Cond. | Color | Insul. Thickness | Jacket Thickness | Approx. OD | Copper Weight | Approx. Weight | DC Resistance @ 25°C | AC Resistance @ 75°C | Inductive Reactance | Min Bending Radius | Allowable Ampacity 75°C | Allowable Ampacity 90°C |
|--------------|------------|--------------|---------------|---------------------|----------------|------------------|------------------|------------|---------------|----------------|----------------------|----------------------|---------------------|--------------------|-------------------------|-------------------------|
| | AWG | No. | strands | inch | | mil | mil | inch | lb / 1000ft | lb / 1000ft | Ω /1000ft | Ω /1000ft | Ω/1000ft | inch | Amp | Amp |
| 12 AWG | | | | | | | | | | | | | | | | |
| 628738 | 12 | 4 | 7 | 0.088 | BK, WE, RD, BE | 30 | 45 | 0.478 | 83 | 160 | 1.662 | 2.002 | 0.054 | 1.9 | 20 | 24 |

All dimensions are nominal and subject to normal manufacturing tolerances

◊ Cable marked with this symbol is a standard stock item

* 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 more than Three Current-Carrying Conductors.