

FLEXTOR™ CU 600V PVC-Nylon Insulation PVC Jacket THHN/THWN-2. CT Rated - Sunlight Resistant - For Direct Burial - Silicone Free

Type TC-ER Power Cable Flexible 600Volt Four Conductor Copper, Polyvinyl Chloride (PVC) with nylon layer insulation THHN Polyvinyl Chloride (PVC) Jacket with 1 Green Insulated CU Ground. CT Rated - Sunlight Resistant - For Direct Burial - Silicone Free

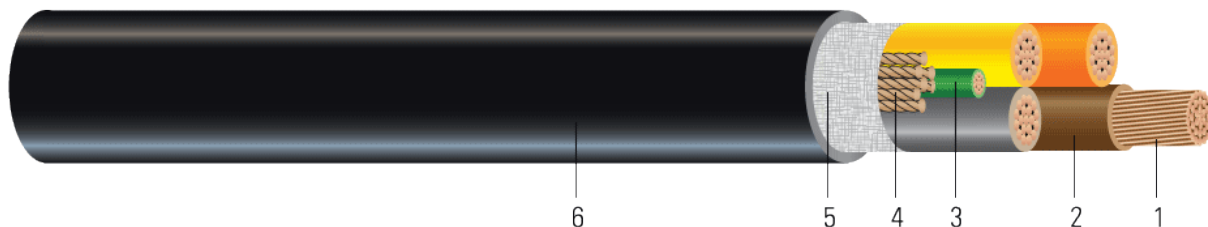


Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

1. **Conductor:** Class C compressed stranded bare copper per ASTM B3 and ASTM B8
2. **Insulation:** Polyvinyl Chloride (PVC) with nylon layer Type THHN/THWN. Colors: Gray, Brown, Orange, Yellow.
3. **Grounding Conductor:** Green insulated THHN Class C compressed stranded bare copper per ASTM B3 and ASTM B8
4. **Filler:** Paper filler (cable size 8 & 6 uses Polypropylene filler)
5. **Binder:** Polyester flat thread binder tape for cable sizes larger than 2 AWG
6. **Overall Jacket:** Polyvinyl Chloride (PVC) Jacket

APPLICATIONS AND FEATURES:

Southwire's 600 Volt Type TC-ER flexible power cables are made with class C copper stranding for extra flexibility 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 75°C in wet locations and 90°C in dry locations, 105°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. Sunlight Resistant - For Direct Burial - Silicone Free

SPECIFICATIONS:

- ASTM B3 Soft or Annealed Copper Wire
- ASTM B8 Concentric-Lay-Stranded Copper Conductors
- UL 83 Thermoplastic 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-93-639 (NEMA WC 74) 5-46 KV Shielded Power Cable
- 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)



Table 1 – Weights and Measurements

| Stock Number | Cond. Size | Cond. Number | Strand Count | Diameter Over Conductor | Insul. Thickness | Ground | Jacket Thickness | Approx. OD | Copper Weight | Approx. Weight |
|--------------|---------------|--------------|----------------|-------------------------|------------------|-----------|------------------|------------|---------------|----------------|
| | AWG/ Kcmil | | No. of Strands | inch | mil | No. x AWG | mil | inch | lb/1000ft | lb/1000ft |
| 643697 | 2 | 4 | 19 | 0.286 | 40 | 1 x 6 | 80 | 1.158 | 909 | 1243 |

All dimensions are nominal and subject to normal manufacturing tolerances

◊ Cable marked with this symbol is a standard stock item

Table 2 – Electrical and Engineering Data

| Stock Number | Cond. Size | Cond. Number | Min Bending Radius | Max Pull Tension | DC Resistance @ 25°C | AC Resistance @ 75°C | Inductive Reactance @ 60Hz | Allowable Ampacity At 60°C | Allowable Ampacity At 75°C | Allowable Ampacity At 90°C |
|--------------|---------------|--------------|--------------------|------------------|----------------------|----------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| | AWG/ Kcmil | | inch | lb | Ω/1000ft | Ω/1000ft | Ω/1000ft | Amp | Amp | Amp |
| 643697 | 2 | 4 | 5.8 | 1698 | 0.162 | 0.195 | 0.045 | 76 | 92 | 104 |

* Ampacities based upon 2023 NEC Table 310.16. See NEC sections 310.15 and 110.14(C) for additional requirements.

* Ampacities have been adjusted for more than Three Current-Carrying Conductors.

