

## 3/C CU 600V PVC THHN PVC Jacket Power Cable With Ground. Silicone Free

Type TC-ER Power Cable 600Volt Three Conductor Copper, Polyvinyl Chloride (PVC) with nylon layer insulation THHN Polyvinyl Chloride (PVC) Jacket with 1 Bare CU Ground. Silicone Free

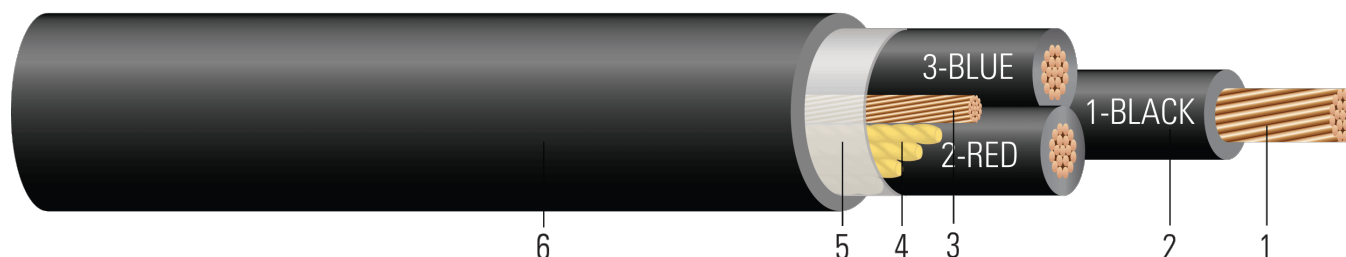


Image not to scale. See Table 1 for dimensions.

### CONSTRUCTION:

- Conductor:** Class B compressed stranded bare copper per ASTM B3 and ASTM B8
- Insulation:** Polyvinyl Chloride (PVC) with nylon layer Type THHN/THWN
- Grounding Conductor:** Class B compressed stranded bare copper per ASTM B3 and ASTM B8 (cable size 8 & 6 has insulated green ground)
- Filler:** Paper filler (cable size 8 & 6 uses Polypropylene filler)
- Binder:** Polyester flat thread binder tape for cable sizes larger than 2 AWG
- Overall Jacket:** Polyvinyl Chloride (PVC) Jacket

### APPLICATIONS AND FEATURES:

Southwire's 600 Volt Type TC-ER power 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 75°C in wet locations and 90°C in dry locations, 105°C for emergency overload, and 150°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. Silicone Free

### SPECIFICATIONS:

- ASTM B3 Standard Specification for 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 Vertical-Tray Fire Propagation and Smoke Release Test
- 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} MASTER-DESIGN {UL} XX AWG (XX.X{mm<sup>2</sup>}) CU 3 CDRS TYPE TC-ER THHN OR THWN CDRS GW 1 X X AWG 90{D}C JACKET SUNLIGHT RESISTANT DIRECT BURIAL 600 VOLTS {NOM}-ANCE {YYYY}

Table 1 – Weights and Measurements

443390	8	0.139	35	0.199	1 x 10	45	0.542	187	283
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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 310.16 of the NEC 2020 Edition. Ampacities of insulated conductors rated up to and including 2000 Volts with not more than three current-carrying conductors in raceway, cable or direct buried based on ambient temperature of 30°C (86°F). Ampacities have been adjusted for more than three current-carrying conductors based on Table 310.15(C) 1.

**Table 2 – Electrical and Engineering Data**

Stock Number	Cond. Size	Min Bending Radius	Max Pull Tension	DC Resistance @ 25°C	AC Resistance @ 90°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
443390◊	8	2.2	396	0.652	0.815	0.030	40	50	55

† Ampacities are based on Table 310.16 of the NEC 2020 Edition. Ampacities of insulated conductors rated up to and including 2000 Volts with not more than three current-carrying conductors in raceway, cable or direct buried based on ambient temperature of 30°C (86°F). Ampacities have been adjusted for more than three current-carrying conductors based on Table 310.15(C) 1.

