

CU 600/1000V EPR Insulation LSZH-TP Jacket XHHW-2. CT Rated - Sunlight Resistant - For Direct Burial - Silicone Free

Type TC-ER Power Cable 600Volt Four Conductor Copper, Ethylene Propylene Rubber (EPR) insulation XHHW-2 Thermoplastic SOLONON® Low Smoke Zero Halogen (LSZH-TP) Jacket with 1 Bare CU Ground. CT Rated - Sunlight Resistant - For Direct Burial - 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:** Ethylene Propylene Rubber (EPR) Type XHHW-2
- 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:** Thermoplastic SOLONON® Low Smoke Zero Halogen (LSZH-TP) 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 90°C for normal operation in wet and dry locations, 130°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 44 Thermoset-Insulated Wires and Cables
- UL 1277 Electrical Power and Control Tray Cables
- UL 1685 Vertical-Tray Fire Propagation and Smoke Release Test
- ICEA S-58-679 Control Cable Conductor Identification Method 3 (1-BLACK, 2-RED, 3-BLUE)
- ICEA S-95-658 (NEMA WC70) Power Cables Rated 2000 Volts or Less for the Distribution of Electrical Energy
- NFPA 130 Standard for Fixed Guideway Transit and Passenger Rail Systems (500kcmil & Larger)



SAMPLE PRINT LEGEND:

{SQFTG} SOUTHWIRE® {UL} XXX KCMIL CU 4 CDRS TYPE TC-ER XHHW-2 CDRS GW 1 X X AWG CU SOLONON® 90°C JACKET SUNLIGHT RESISTANT DIRECT BURIAL 600 VOLTS

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 |
| 673535 | 2 | 4 | 7 | 0.282 | 45 | 1 x 6 | 80 | 1.078 | 909 | 1234 |
| TBA | 1 | 4 | 19 | 0.322 | 55 | 1 x 6 | 80 | 1.207 | 1123 | 1437 |
| TBA | 1/0 | 4 | 19 | 0.361 | 55 | 1 x 6 | 80 | 1.302 | 1395 | 1738 |
| TBA | 4/0 | 4 | 19 | 0.512 | 55 | 1 x 4 | 110 | 1.727 | 2764 | 3320 |
| TBA | 250 | 4 | 37 | 0.558 | 65 | 1 x 4 | 110 | 1.887 | 3244 | 3896 |
| 673550 | 350 | 4 | 37 | 0.661 | 65 | 1 x 3 | 110 | 2.187 | 4530 | 5552 |
| TBA | 500 | 4 | 37 | 0.789 | 65 | 1 x 2 | 110 | 2.446 | 6436 | 7307 |

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 |
| 673535 | 2 | 4 | 5.4 | 1698 | 0.162 | 0.195 | 0.045 | 76 | 92 | 104 |
| TBA | 1 | 4 | 6.0 | 2142 | 0.128 | 0.154 | 0.046 | 88 | 104 | 116 |
| TBA | 1/0 | 4 | 6.5 | 2703 | 0.102 | 0.122 | 0.044 | 100 | 120 | 136 |
| TBA | 4/0 | 4 | 8.6 | 5416 | 0.051 | 0.062 | 0.041 | 156 | 184 | 208 |
| TBA | 250 | 4 | 9.4 | 6400 | 0.043 | 0.053 | 0.041 | 172 | 204 | 232 |
| 673550 | 350 | 4 | 13.1 | 8960 | 0.031 | 0.039 | 0.040 | 208 | 248 | 280 |
| TBA | 500 | 4 | 14.7 | 12800 | 0.022 | 0.029 | 0.039 | 256 | 304 | 344 |

* 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.

