# CU 600/1000V XLPE Insulation Thermoplastic CPE-TP Jacket XHHW-2. CT Rated - Sunlight Resistant - For Direct Burial - Silicone Free

Type TC-ER Power Cable 600 or 1000 Volt Three Conductor Copper, Cross Linked Polyethylene (XLPE) insulation XHHW-2 Thermoplastic Chlorinated Polyethylene (CPE-TP) Jacket with 1 Bare CU Ground. CT Rated - Sunlight Resistant - For Direct Burial - Silicone Free

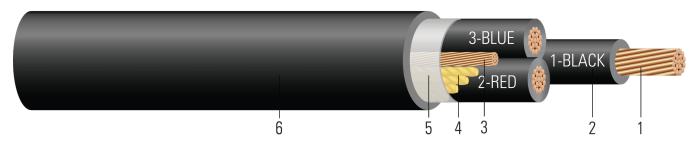


Image not to scale. See Table 1 for dimensions.

## **CONSTRUCTION:**

- 1. **Conductor:** Class B compressed stranded bare copper per ASTM B3 and ASTM B8
- 2. **Insulation:** Cross Linked Polyethylene (XLPE) Type XHHW-2
- 3. **Grounding Conductor:** Class B compressed stranded bare copper per ASTM B3 and ASTM B8 (cable size 8 & 6 has insulated green ground)
- 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: Thermoplastic Chlorinated Polyethylene (CPE-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
- IEEE 1202 FT4 Flame Test (70,000) BTU/hr Vertical Tray Test







### **SAMPLE PRINT LEGEND:**

{SQFTG} SOUTHWIRE® {UL} XXX AWG/KCMIL 3/C TYPE TC-ER XHHW-2 CDRS GW 1 X X AWG CU 90°C CPE JACKET SUN RES OIL RES II FT4/IEEE1202 600 VOLTS

## **Table 1 – Weights and Measurements**

| Cond.<br>Size | Cond.<br>Number | Strand<br>Count   | Diameter Over<br>Conductor | Insul.<br>Thickness | Ground       | Jacket<br>Thickness | Approx.<br>OD | Copper<br>Weight | Approx.<br>Weight | Jacket<br>Color |
|---------------|-----------------|-------------------|----------------------------|---------------------|--------------|---------------------|---------------|------------------|-------------------|-----------------|
| AWG/<br>Kcmil |                 | No. of<br>Strands | inch                       | mil                 | No. x<br>AWG | mil                 | inch          | lb/1000ft        | lb/1000ft         |                 |
| 4/0           | 3               | 19                | 0.512                      | 55                  | 1 x 4        | 110                 | 1.553         | 2109             | 2677              | Black           |

All dimensions are nominal and subject to normal manufacturing tolerances

## Table 2 – Electrical and Engineering Data

| Cond.<br>Size | Cond.<br>Number | Min Bending<br>Radius | Max Pull<br>Tension | DC Resistance @<br>25°C | AC Resistance @<br>75°C | Inductive Reactance<br>@ 60Hz | Allowable Ampacity<br>At 75°C | Allowable Ampacity<br>At 90°C |
|---------------|-----------------|-----------------------|---------------------|-------------------------|-------------------------|-------------------------------|-------------------------------|-------------------------------|
| AWG/<br>Kcmil |                 | inch                  | lb                  | Ω/1000ft                | Ω/1000ft                | Ω/1000ft                      | Amp                           | Amp                           |
| 4/0           | 3               | 7.8                   | 5078                | 0.051                   | 0.062                   | 0.041                         | 230                           | 260                           |

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





<sup>♦</sup> Cable marked with this symbol is a standard stock item

GG: Green Insulated Ground

TBA stock codes are estimations only and actual product may vary. Please wait until a stock code is assigned to purchase connectors and/or fittings.