



## **Flexible CU 600/1000V XLPE Insulation PVC Jacket XHHW-2. CT Rated - Sunlight Resistant - For Direct Burial - Silicone Free**

Type TC-ER Power Cable 600 or 1000 Volt Flexible Four Conductor Copper, Cross Linked Polyethylene (XLPE) insulation XHHW-2 Polyvinyl Chloride (PVC) Jacket with 1 Bare CU Ground. Silicone Free. CT Rated - Sunlight Resistant - For Direct Burial - Silicone Free



Image not to scale. See Table 1 for dimensions.

### **CONSTRUCTION:**

1. **Conductor:** Sizes 8 - 4/0 AWG: Class K, flexible stranded bare copper per ASTM B3 and B172. Sizes 250 - 750 kcmil: Class I, flexible stranded bare copper per ASTM B3 and B172.
2. **Insulation:** Cross Linked Polyethylene (XLPE) Type XHHW-2
3. **Grounding Conductor:** Sizes 8 - 4/0 AWG: Class K, flexible stranded bare copper per ASTM B3 and B172. Sizes 250 - 750 kcmil: Class I, flexible stranded bare copper per ASTM B3 and B172. When present, phase cable conductor sizes 8 & 6 AWG have an 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:** Polyvinyl Chloride (PVC)

### **APPLICATIONS AND FEATURES:**

Southwire's 600 or 1000 Volt Type TC-ER flexible 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 B172 Standard Specification for Rope-Lay-Stranded Copper Conductors Having Bunch-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, 4-ORANGE)





**SAMPLE PRINT LEGEND:**

{SQFTG} SOUTHWIRE® {UL} XXX KCMIL (XXX{mm2}) CU 4/C TYPE TC-ER XHHW-2 CDRS GW 1 X X AWG CU 90°C  
JACKET SUNLIGHT RESISTANT DIRECT BURIAL 600V or 1000V {NOM}-ANCE {YYYY}

**Table 1 – Weights and Measurements**

| Cond. Size | Cond. Number | Strand Count   | Diameter Over Conductor | Insul. Thickness | Ground    | Jacket Thickness | Approx. OD | Copper Weight | Approx. Weight | Jacket Color |
|------------|--------------|----------------|-------------------------|------------------|-----------|------------------|------------|---------------|----------------|--------------|
| AWG/Kcmil  |              | No. of Strands | inch                    | mil              | No. x AWG | mil              | inch       | lb/1000ft     | lb/1000ft      |              |
| 2          | 4            | 651            | 0.302                   | 45               | 1 x 6     | 80               | 1.192      | 936           | 121            | Black        |

All dimensions are nominal and subject to normal manufacturing tolerances

◊ Cable marked with this symbol is a standard stock item

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.

**Table 2 – Electrical and Engineering Data**

| Cond. Size | Cond. Number | Min Bending Radius | Max Pull Tension | DC Resistance @ 25°C | AC Resistance @ 75°C | Inductive Reactance @ 60Hz | Allowable Ampacity At 75°C | Allowable Ampacity At 90°C |
|------------|--------------|--------------------|------------------|----------------------|----------------------|----------------------------|----------------------------|----------------------------|
| AWG/Kcmil  |              | inch               | lb               | Ω/1000ft             | Ω/1000ft             | Ω/1000ft                   | Amp                        | Amp                        |
| 2          | 4            | 5.9                | 2123             | 0.167                | 0.211                | 0.045                      | 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.

