# 2/C, 3/C, 4/C CU 600 V XHHW-2 Shielded PVC Jacket Power Cable With Ground. Color Method 1 Table 1

Type TC-ER Power Cable 600 or 1000 Volt Three Conductor Copper, Fire Retardant Cross-Linked Polyethylene (FR-XLPE) insulation Shielded Polyvinyl Chloride (PVC) Jacket with 1 Bare CU Ground. Conductor Identification Method 1 Table 1




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:** Fire Retardant Cross Linked Polyethylene (FR-XLPE)
3. **Grounding Conductor:** Class B compressed stranded bare copper per ASTM B3 and ASTM B8 for cables with 3 or 4 conductors
4. **Filler:** Paper or Polypropylene filler
5. **Binder:** Polyester flat thread binder tape
6. **Shield:** 5 mil copper Helically-Applied Tape shield
7. **Rip Cord:** Rip cord for ease of jacket removal
8. **Overall Jacket:** Polyvinyl Chloride (PVC) Jacket

## APPLICATIONS AND FEATURES:

Southwire's 600 Volt control 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. UL rated constructions can be used in Class I, II, and III, Division 2 hazardous locations per NEC Article 501 and 502. UL rated constructions with 3 or more conductors are listed for exposed runs (TC-ER) per NEC 336.10.

## 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
- CSA *CSA marking is available upon request*
- ICEA S-58-679 Control Cable Conductor Identification Method 1 Table 1
- ICEA S-95-658 (NEMA WC70) Power Cables Rated 2000 Volts or Less for the Distribution of Electrical Energy


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**SAMPLE PRINT LEGEND:**

{SQFTG} SOUTHWIRE® {UL} TYPE TC-ER X AWG CU X/C XHHW-2 CDRS E1 X AWG CU GW SHIELDED 90{D}C WET OR DRY PVC JKT 600V SUN RES DIRECT BURIAL


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## Table 1 – Physical and Electrical Data

| Cond. Size | Cond. Number | Cond. Strands | Diameter Over Cond. | Insul. Thickness | Ground | Jacket Thickness | Approx. OD | Copper Weight | Approx. Weight | DC Resistance @ 25°C | AC Resistance @ 75°C | Inductive Rectance | Min Bending Radius | Allowable Ampacity 75°C | Allowable Ampacity 90°C | Jacket Color |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AWG | No. | strands | inch | mil | No. x AWG | mil | inch | lb / 1000ft | lb / 1000ft | Ω /1000ft | Ω /1000ft | Ω/1000ft | inch | Amp | Amp | |
| 8 AWG | | | | | | | | | | | | | | | | |
| 8 | 4 | 7 | 0.142 | 45 | 1 x 10 | 60 | 0.687 | 249 | 391 | 0.653 | 0.81 | 0.052 | 4.8 | 40 | 44 | BK |

All dimensions are nominal and subject to normal manufacturing tolerances
◊ Cable marked with this symbol is a standard stock item
† Ampacities based upon 2023 NEC Table 310.16 and do not take into account the overcurrent protection limitations in NEC 240.4(D) of 15 Amps for 14 AWG CU, 20 Amps for 12 AWG CU, and 30 Amps for 10 AWG CU (independent of the conductor temperature rating and stranding if size is present in table). Also, see NEC sections 310.15 and 110.14(C) for additional requirements.
† Ampacities have been adjusted for more than Three Current-Carrying Conductors.
* Inductive impedance is based on non-ferrous conduit with one diameter spacing.
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.


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