

3/C CU 600V EPR XHHW-2 CPE Power Cable With Ground

Type TC-ER Power Cable 600Volt Three Conductor Copper, Ethylene Propylene Rubber (EPR) insulation XHHW-2 Chlorinated Polyethylene (CPE) Jacket with 1 Tinned CU Ground. VW-1 Rated



Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

- Conductor:** Class B compressed stranded tinned copper per ASTM B33 and ASTM B8
- Insulation:** Ethylene Propylene Rubber (EPR) Type XHHW-2. VW-1 Rated
- Grounding Conductor:** Class B compressed stranded tinned copper per ASTM B33 and ASTM B8
- Overall Jacket:** Chlorinated Polyethylene (CPE) 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. VW-1 Rated.

SPECIFICATIONS:

- ASTM B8 Concentric-Lay-Stranded Copper Conductors
- ASTM B33 Standard Specification for Tin-Coated Soft or Annealed Copper Wire
- UL 44 Thermoset-Insulated Wires and Cables
- UL 44 VW-1 Vertical flame test on individual conductors
- UL 1277 Electrical Power and Control Tray Cables
- UL 1685 FT4 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{R} XX AWG (XX.X{mm²}) 3/C EPR/CPE TYPE TC-ER XHHW-2 CDRS GW 1 X X AWG TINNED E75755 MASTER-DESIGN {UL} 600V 90{D}C DRY/90{D}C WET OIL RES I SUNLIGHT RESISTANT DIRECT BURIAL FT4/IEEE 1202 -- {NOM}-ANCE EPR/CPE Tipo XHHW-2 SR FT4 600V 90{D}C USA

Table 1 – Weights and Measurements

| | | | | | | | | | |
|---------|-----|-------|----|-------|-------|----|-------|------|------|
| 591991◇ | 1/0 | 0.360 | 55 | 0.470 | 1 x 6 | 80 | 1.175 | 1069 | 1428 |
|---------|-----|-------|----|-------|-------|----|-------|------|------|



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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 | Min Bending Radius | Max Pull Tension | DC Resistance @ 25°C | AC Resistance @ 90°C | Inductive Reactance @ 60Hz | Shield Short Circuit Current 6 Cycles | 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 | Amp |
| 591991◇ | 1/0 | 5.9 | 2534 | 0.102 | 0.128 | 0.028 | 24011 | 125 | 150 | 170 |

† Ampacities are based on Table 310.15 (B)(16) of the NEC, 2017 Edition. Ampacities of insulated conductors rated up to and including 2000 Volts, based on ambient temperature of 30°C (86°F)

