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 Three Conductor Copper, Cross Linked Polyethylene (XLPE) insulation XHHW-2 Polyvinyl Chloride (PVC) Jacket with 1 Copper Ground (Bare or Insulated). 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. (When present, 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) Jacket

APPLICATIONS AND FEATURES:

Southwire's 600 or 1000 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 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 383 Flame Test (70,000 btu)
- IEEE 1202 FT4 Flame Test (70,000) BTU/hr Vertical Tray Test

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SAMPLE PRINT LEGEND:

Bare Ground: {SQFTG} SOUTHWIRE® {UL} XX AWG (X.XX{mm2}) 3/C TYPE TC-ER XHHW-2 CDRS 90°C JACKET SUNLIGHT RESISTANT DIRECT BURIAL 600V or 1000V {NOM}-ANCE XHHW-2 CT FT4 SR 600V 90C

Green Ground: {SQFTG} SOUTHWIRE® {UL} XX AWG (X.XX{mm2}) CU 3/C TYPE TC-ER XHHW-2 CDRS GW 1 X X AWG CU GREEN INSULATED 90°C JACKET SUNLIGHT RESISTANT DIRECT BURIAL 600V or 1000V {NOM}-ANCE XHHW-2 CT FT4 SR 600V 90C

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
583697	500	3	37	0.789	65	1 x 2/0	115	2.274	5092	6099

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
583697	500	3	13.6	12000	0.022	0.029	0.039	320	380	430

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