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

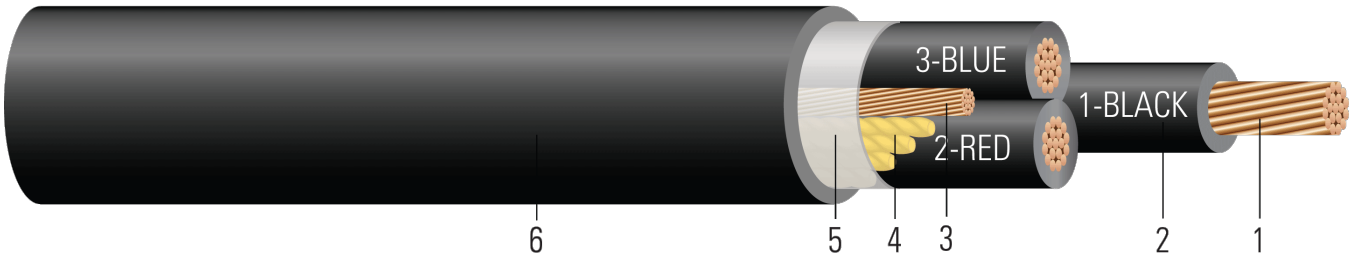

Image not to scale. See Table 1 for dimensions.

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 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

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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

Stock Number	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	
890670	8	3	7	0.142	45	1 x 10	110	0.784	187	404	BK
890671	6	3	7	0.178	45	1 x 8	110	0.87	297	547	BK
890672	4	3	7	0.225	45	1 x 8	110	0.917	442	703	BK
890673	2	3	7	0.283	45	1 x 6	110	1.054	703	1033	BK
890701	1	3	19	0.322	55	1 x 6	80	1.177	865	1272	BK
890702	1/0	3	19	0.362	55	1 x 6	110	1.262	1070	1487	BK
TBA	2/0	3	19	0.405	55	1 x 6	80	1.278	1326	1629	BK
890704	3/0	3	19	0.456	55	1 x 4	110	1.484	1700	2221	BK
890705	4/0	3	19	0.512	55	1 x 4	110	1.579	2110	2652	BK
890706	250	3	37	0.558	65	1 x 4	110	1.713	2469	3091	BK
890708	350	3	37	0.661	65	1 x 3	110	1.927	3439	4175	BK
598118	600	3	61	0.866	80	1 x 3/0	110	2.426	6136	7069	BK
671840	600	3	61	0.866	80	1 x 1/0	110	2.426	5942	6943	BK
890712	750	3	61	0.968	80	1 x 1	110	2.64	7277	8399	BK

All dimensions are nominal and subject to normal manufacturing tolerances
◊ 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.

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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 75°C	Allowable Ampacity At 90°C
	AWG/ Kcmil		inch	lb	Ω/1000ft	Ω/1000ft	Ω/1000ft	Amp	Amp
890670	8	3	3.1	396	0.653	0.81	0.052	50	55
890671	6	3	3.5	629	0.411	0.51	0.051	65	75
890672	4	3	3.7	1001	0.258	0.32	0.048	85	95
890673	2	3	5.3	1592	0.162	0.201	0.045	115	130
890701	1	3	5.9	2008	0.128	0.159	0.046	130	145
890702	1/0	3	6.3	2534	0.102	0.127	0.044	150	170
TBA	2/0	3	6.4	3194	0.082	0.102	0.043	175	195
890704	3/0	3	7.4	4027	0.064	0.079	0.042	200	225
890705	4/0	3	7.9	5078	0.051	0.063	0.041	230	260
890706	250	3	8.6	6000	0.043	0.053	0.041	255	290
890708	350	3	9.6	8400	0.031	0.039	0.04	310	350
598118	600	3	14.6	14400	0.018	0.024	0.039	420	475
671840	600	3	14.6	14400	0.018	0.024	0.039	420	475
890712	750	3	15.8	18000	0.014	0.019	0.038	475	535

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

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