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

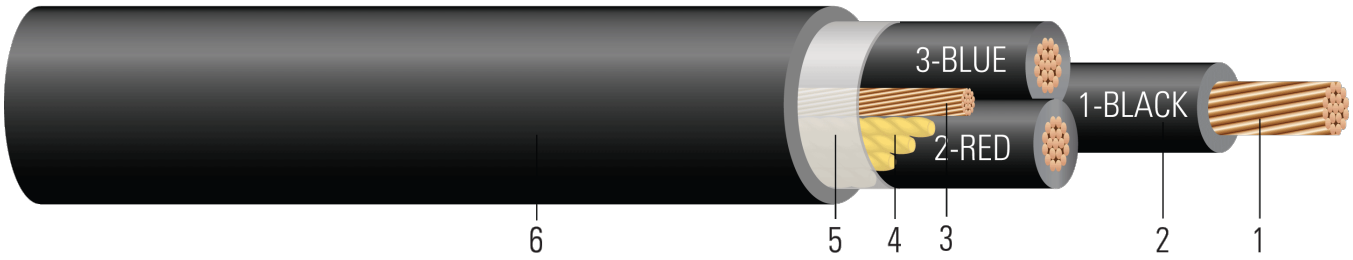

Image not to scale. See Table 1 for dimensions.

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

UPDATED: April 14, 2025, 10:02 p.m.UTC REVISION: 1.000.008

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	0.141	45	1 x 10 GG	110	0.784	186	403	Black
890671	6	3	7	0.177	45	1 x 8 GG	110	0.869	297	546	Black
890672	4	3	7	0.225	45	1 x 8	110	0.917	441	703	Black
890673	2	3	7	0.282	45	1 x 6	110	1.045	702	1043	Black
890701	1	3	19	0.322	55	1 x 6	110	1.177	864	1271	Black
890702	1/0	3	19	0.361	55	1 x 6	110	1.261	1069	1529	Black
TBA	2/0	3	19	0.405	55	1 x 6	110	1.344	1243	1703	Black
890704	3/0	3	19	0.456	55	1 x 4	110	1.471	1699	2262	Black
890705	4/0	3	19	0.512	55	1 x 4	110	1.553	2109	2677	Black
890706	250	3	37	0.558	65	1 x 4	110	1.726	2469	3179	Black
890708	350	3	37	0.661	65	1 x 3	110	1.905	3438	4236	Black
598118	600	3	61	0.865	80	1 x 3/0	110	2.425	6136	7141	Black
671840	600	3	61	0.865	80	1 x 1/0	110	2.425	5942	7105	Black
890712	750	3	61	0.968	80	1 x 1	110	2.639	7277	8606	Black

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.

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	0.786	0.052	50	55
890671	6	3	3.5	629	0.411	0.495	0.051	65	75
890672	4	3	3.7	1001	0.258	0.310	0.048	85	95
890673	2	3	5.2	1592	0.162	0.195	0.045	115	130
890701	1	3	5.9	2008	0.128	0.154	0.046	130	145
890702	1/0	3	6.3	2534	0.102	0.122	0.044	150	170
TBA	2/0	3	6.7	3194	0.081	0.097	0.043	175	195
890704	3/0	3	7.4	4027	0.064	0.078	0.042	200	225
890705	4/0	3	7.8	5078	0.051	0.062	0.041	230	260
890706	250	3	8.6	6000	0.043	0.053	0.041	255	290
890708	350	3	9.5	8400	0.031	0.039	0.040	310	350
598118	600	3	14.6	14400	0.018	0.025	0.039	420	475
671840	600	3	14.6	14400	0.018	0.025	0.039	420	475
890712	750	3	15.8	18000	0.014	0.022	0.038	475	535

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