

## CU 600/1000V XLPE Insulation PVC Jacket. XHHW-2

Type TC-ER Power Cable 600 or 1000 Volt Four Conductor Copper, Cross Linked Polyethylene (XLPE) insulation XHHW-2 Polyvinyl Chloride (PVC) Jacket with 1 Bare CU Ground. Silicone Free.

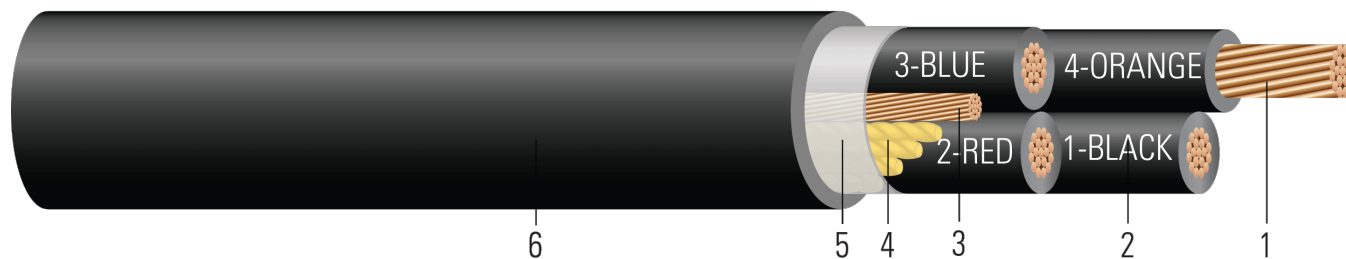


Image not to scale. See Table 1 for dimensions.

### CONSTRUCTION:

- Conductor:** Class B compressed stranded bare copper per ASTM B3 and ASTM B8
- Insulation:** Cross Linked Polyethylene (XLPE) Type XHHW-2
- Grounding Conductor:** Class B compressed stranded bare copper per ASTM B3 and ASTM B8 (cable size 8 & 6 has insulated green ground)
- Filler:** Paper filler (cable size 8 & 6 uses Polypropylene filler)
- Binder:** Polyester flat thread binder tape for cable sizes larger than 2 AWG
- 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. Silicone Free.

### SPECIFICATIONS:

- ASTM B3 Standard Specification for 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 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

### SAMPLE PRINT LEGEND:

{SQFTG} SOUTHWIRE{R} MASTER-DESIGN {UL} XXX KCMIL (XXX{mm<sup>2</sup>}) CU 4/C TYPE TC-ER XHHW-2 CDRS GW 1 X X AWG CU 90{D}C JACKET SUNLIGHT RESISTANT DIRECT BURIAL 600V or 1000V {NOM}-ANCE {YYYY}



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**Table 1 – Weights and Measurements**

Stock Number	Cond. Size	Diameter Over Conductor	Insul. Thickness	Ground	Jacket Thickness	Approx. OD	Copper Weight	Approx. Weight
	AWG/Kcmil	inch	mil	No. x AWG	mil	inch	lb/1000ft	lb/1000ft
557009	8	0.141	45	1 x 10	60	0.755	238	403
560102	6	0.177	45	1 x 8	80	0.902	378	613
556993	4	0.225	45	1 x 8	80	0.918	572	804
554303	2	0.282	45	1 x 6	80	1.046	909	1185
602011	1	0.322	55	1 x 6	80	1.202	1125	1496
554436	1/0	0.361	55	1 x 6	80	1.299	1399	1754
556985	2/0	0.405	55	1 x 6	80	1.420	1742	2144
602037	3/0	0.456	55	1 x 4	80	1.521	2223	2693
554444	4/0	0.512	55	1 x 4	110	1.721	2769	3425
602052	250	0.558	65	1 x 4	110	1.842	3248	4003
675713	350	0.661	65	1 x 1	110	2.081	4627	5524
644547	350	0.661	65	1 x 3	110	2.093	4530	5437
602078	350	0.661	65	1 x 3	110	2.095	4530	5351
TBA	350	0.661	65	1 x 3	110	2.146	4526	5276
672237	500	0.789	65	1 x 1/0	110	2.382	6566	7656
675711	500	0.789	65	1 x 2/0	110	2.382	6652	7742
672235	500	0.789	65	1 x 1	110	2.382	6498	7588
554469	500	0.789	65	1 x 2	110	2.382	6443	7427
672240	500	0.789	65	1 x 4/0	110	2.511	6896	8014
675706	600	0.865	80	1 x 1/0	140	2.756	7813	9251
649649	600	0.865	80	1 x 4/0	140	2.903	8144	9621
675708	600	0.865	80	1 x 250	140	2.903	8263	9741
570961	750	0.968	80	1 x 1	140	3.003	9616	11307

All dimensions are nominal and subject to normal manufacturing tolerances

◊ Cable marked with this symbol is a standard stock item

† 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) and adjusted to 80% per Table 310.15(B)(3)(a) for More Than Three Current-Carrying Conductors.



**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	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
557009	8	3.0	528	0.653	0.786	0.052	32	40	44
560102	6	3.6	839	0.411	0.495	0.051	44	52	60
556993	4	3.6	1335	0.258	0.310	0.048	56	68	76
554303	2	5.2	2123	0.162	0.195	0.045	76	92	104
602011	1	6.0	2678	0.128	0.154	0.046	88	104	116
554436	1/0	6.4	3379	0.102	0.122	0.044	100	120	136
556985	2/0	7.1	4259	0.081	0.097	0.043	116	140	156
602037	3/0	7.6	5369	0.064	0.078	0.042	132	160	180
554444	4/0	8.6	6771	0.051	0.062	0.041	156	184	208
602052	250	9.2	8000	0.043	0.053	0.041	172	204	232
675713	350	12.4	11200	0.031	0.039	0.040	208	248	280
644547	350	12.5	11200	0.031	0.039	0.040	208	248	280
602078	350	12.5	11200	0.031	0.039	0.040	208	248	280
TBA	350	12.8	11200	0.031	0.039	0.040	208	248	280
672237	500	14.2	16000	0.022	0.029	0.039	256	304	344
675711	500	14.2	16000	0.022	0.029	0.039	256	304	344
672235	500	14.2	16000	0.022	0.029	0.039	256	304	344
554469	500	14.2	16000	0.022	0.029	0.039	256	304	344
672240	500	15.0	16000	0.022	0.029	0.039	256	304	344
675706	600	16.5	19200	0.018	0.025	0.039	280	336	380
649649	600	17.4	19200	0.018	0.025	0.039	280	336	380
675708	600	17.4	19200	0.018	0.025	0.039	280	336	380
570961	750	18.0	24000	0.014	0.022	0.038	320	380	428

† 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) and adjusted to 80% per Table 310.15(B)(3)(a) for More Than Three Current-Carrying Conductors.

