

## 4/C CU 600 or 1000 V XLPE XHHW-2 PVC Jacket Power Cable With Ground. 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 Bare CU Ground. Silicone Free. VW-1 Rated.

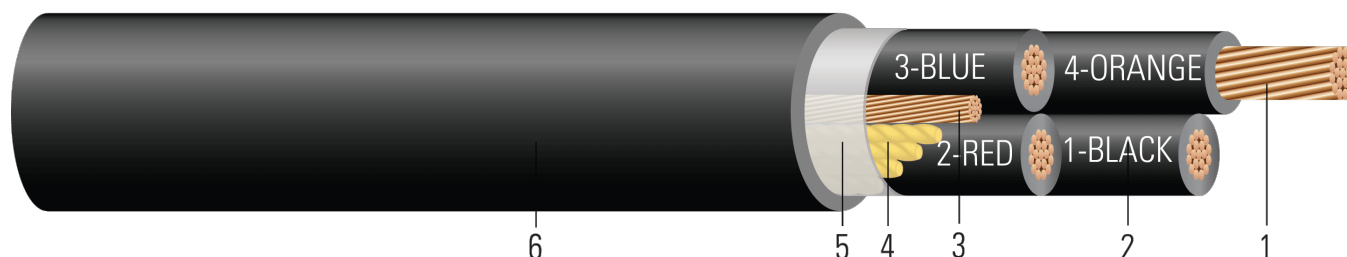


Image not to scale. See Table 1 for dimensions.

### 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. VW-1 Rated

### 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 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 Vertical Tray Flame Test (70,000 Btu/hr) and ICEA T-29-520 - (210,000 Btu/hr)

### SAMPLE PRINT LEGEND:

SOUTHWIRE{R} {UL} SIZE AWG (XXX{mm<sup>2</sup>}) CU 4/C TYPE TC-ER XHHW-2 CDRS GW 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	Diameter Over Insulation	Ground	Jacket Thickness	Approx. OD	Copper Weight	Approx. Weight
	AWG/ Kcmil	inch	mil	inch	No. x AWG	mil	inch	lb/1000ft	lb/1000ft
557009	8	0.139	45	0.229	1 x 10	60	0.673	238	379
560102	6	0.174	45	0.264	1 x 8	60	0.758	379	551
556993	4	0.221	45	0.311	1 x 8	80	0.910	572	800
554303	2	0.277	45	0.367	1 x 6	80	1.047	910	1189
602011	1	0.321	55	0.431	1 x 6	80	1.200	1126	1472
554436	1/0	0.360	55	0.470	1 x 6	80	1.295	1398	1784
556985	2/0	0.404	55	0.514	1 x 6	80	1.401	1742	2173
602037	3/0	0.454	55	0.564	1 x 4	80	1.521	2223	2708
554444	4/0	0.510	55	0.620	1 x 4	80	1.657	2770	3317
602052	250	0.558	65	0.688	1 x 4	110	1.881	3249	3992
602078	350	0.661	65	0.791	1 x 3	110	2.081	4531	5416
644547^	350	0.661	65	0.791	1 x 3	110	2.081	4531	5416
675713	350	0.661	65	0.791	1 x 1	110	2.081	4627	5508
672237	500	0.789	65	0.919	1 x 1/0	110	2.438	6445	7640
672235	500	0.789	65	0.919	1 x 1	110	2.438	6498	7570
554469	500	0.789	65	0.919	1 x 2	110	2.438	6445	7512
672240	500	0.789	65	0.869	1 x 4/0	110	2.510	6445	7955
675706	600	0.866	80	1.026	1 x 1/0	140	2.756	7693	9224
649649	600	0.866	80	1.026	1 x 4/0	140	2.903	7693	9565
675708	600	0.866	80	1.026	1 x 250	140	2.903	7693	9718
570961	750	0.968	80	1.128	1 x 1	140	3.003	9618	11224

All dimensions are nominal and subject to normal manufacturing tolerances

◊ Cable marked with this symbol is a standard stock item

^ Method 4 color code (black with numbers printed)



**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
557009	8	2.7	528	0.652	0.815	0.036	3754	32	40	44
560102	6	3.0	840	0.411	0.514	0.034	5966	44	52	60
556993	4	3.6	1336	0.258	0.323	0.033	9491	56	68	76
554303	2	5.2	2124	0.162	0.203	0.031	15089	76	92	104
602011	1	6.0	2678	0.129	0.161	0.032	19029	88	104	116
554436	1/0	6.5	3379	0.102	0.128	0.031	24011	100	120	136
556985	2/0	7.0	4259	0.081	0.101	0.030	30264	116	140	156
602037	3/0	7.6	5370	0.064	0.080	0.030	38154	132	160	180
554444	4/0	8.3	6771	0.051	0.064	0.029	48114	156	184	208
602052	250	9.4	8000	0.043	0.054	0.030	56845	172	204	232
602078	350	12.8	11200	0.031	0.039	0.029	79583	208	248	280
644547 <sup>^</sup>	350	12.8	11200	0.031	0.039	0.029	79583	208	248	280
675713	350	12.8	11200	0.031	0.039	0.029	79583	208	248	280
672237	500	14.6	16000	0.022	0.027	0.028	113690	256	304	344
672235	500	14.6	16000	0.022	0.027	0.028	113690	256	304	344
554469	500	14.6	16000	0.022	0.027	0.028	113690	256	304	344
672240	500	14.6	16000	0.022	0.027	0.028	113690	256	304	344
675706	600	16.5	19200	0.018	0.023	0.029	136428	282	336	380
649649	600	17.4	19200	0.018	0.023	0.029	136428	282	336	380
675708	600	17.4	19200	0.018	0.023	0.029	136428	282	336	380
570961	750	18.0	24000	0.014	0.019	0.028	170535	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.

