

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

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). Silicone Free.

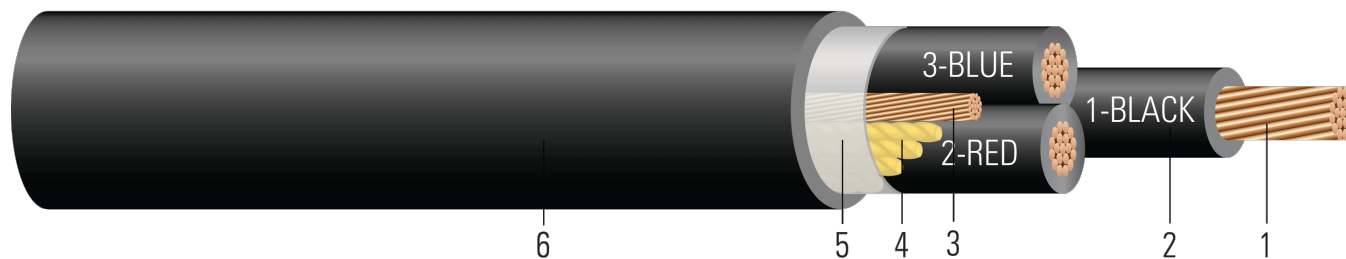


Image not to scale. See Table 1 for dimensions.

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. (When present, cable conductor sizes 8 & 6 AWG have an 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 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{R} {UL} XX AWG (X.XX{mm2}) 3/C TYPE TC-ER XHHW-2 CDRS 90{D}C JACKET SUNLIGHT RESISTANT DIRECT BURIAL 600V or 1000V {NOM}-ANCE XHHW-2 CT FT4 SR 600V 90C

Green Ground: {SQFTG} SOUTHWIRE{R} {UL} XX AWG (X.XX{mm2}) CU 3/C TYPE TC-ER XHHW-2 CDRS GW 1 X X AWG CU GREEN INSULATED 90{D}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 AWG/Kcmil	Diameter Over Conductor inch	Insul. Thickness mil	Ground No. x AWG	Jacket Thickness mil	Approx. OD inch	Copper Weight lb/1000ft	Approx. Weight lb/1000ft
555196◇	8	0.141	45	1 x None	60	0.627	154	283
480590◇	8	0.141	45	1 x 10 GG	60	0.682	186	322
555195	6	0.177	45	1 x None	60	0.704	245	386
480608◇	6	0.177	45	1 x 8 GG	60	0.782	297	466
480616◇	4	0.225	45	1 x 8	60	0.806	441	612
480624◇	2	0.282	45	1 x 6	80	0.974	702	920
480632◇	1	0.322	55	1 x 6	80	1.106	864	1142
480640◇	1/0	0.361	55	1 x 6	80	1.192	1069	1408
480657◇	2/0	0.405	55	1 x 6	80	1.287	1326	1713
480665◇	3/0	0.456	55	1 x 4	80	1.391	1699	2054
480673◇	4/0	0.512	55	1 x 4	80	1.494	2109	2502
480681◇	250	0.558	65	1 x 4	80	1.611	2469	2928
672206	350	0.661	65	1 x 1	110	1.885	3535	4300
480707◇	350	0.661	65	1 x 3	110	1.898	3438	4105
588013	350	0.661	65	1 x 3/0	110	2.081	3797	4578
480715	400	0.705	65	1 x 3	110	2.025	3906	4726
480723◇	500	0.789	65	1 x 2	110	2.155	4884	5676
890148	500	0.789	65	1 x 1/0	110	2.155	5007	5904
583697	500	0.789	65	1 x 2/0	110	2.262	5092	6073
593173	600	0.865	80	1 x 3/0	110	2.436	6136	7248
TBA	600	0.865	80	1 x 2	110	2.446	5815	6970
890388◇	600	0.865	80	1 x 2	110	2.453	5820	6795
672210	600	0.865	80	1 x 250	110	2.566	6392	7564
589359	750	0.968	80	1 x 4/0	110	2.656	7676	8955
554410	750	0.968	80	1 x 1	110	2.656	7277	8557
TBA	1000	1.117	80	1 x 1/0	140	3.038	9684	11368

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 310.16 of the NEC 2020 Edition. Ampacities of insulated conductors rated up to and including 2000 Volts with not more than three current-carrying conductors in raceway, cable or direct buried based on ambient temperature of 30°C (86°F). Ampacities have been adjusted for more than three current-carrying conductors based on Table 310.15(C) 1.



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
555196◇	8	2.5	396	0.653	0.786	0.052	40	50	55
480590◇	8	2.7	396	0.653	0.786	0.052	40	50	55
555195	6	2.8	629	0.411	0.495	0.051	55	65	75
480608◇	6	3.1	629	0.411	0.495	0.051	55	65	75
480616◇	4	3.2	1001	0.258	0.310	0.048	70	85	95
480624◇	2	3.8	1592	0.162	0.195	0.045	95	115	130
480632◇	1	5.5	2008	0.128	0.154	0.046	110	130	145
480640◇	1/0	5.9	2534	0.102	0.122	0.044	125	150	170
480657◇	2/0	6.4	3194	0.081	0.097	0.043	145	175	195
480665◇	3/0	6.9	4027	0.064	0.078	0.042	165	200	225
480673◇	4/0	7.4	5078	0.051	0.062	0.041	195	230	260
480681◇	250	8.0	6000	0.043	0.053	0.041	215	255	290
672206	350	9.4	8400	0.031	0.039	0.040	260	310	350
480707◇	350	9.4	8400	0.031	0.039	0.040	260	310	350
588013	350	12.4	8400	0.031	0.039	0.040	260	310	350
480715	400	12.1	9600	0.027	0.035	0.040	280	335	380
480723◇	500	12.9	12000	0.022	0.029	0.039	320	380	430
890148	500	12.9	12000	0.022	0.029	0.039	320	380	430
583697	500	13.5	12000	0.022	0.029	0.039	320	380	430
593173	600	14.6	14400	0.018	0.025	0.039	350	420	475
TBA	600	14.6	14400	0.018	0.025	0.039	350	420	475
890388◇	600	14.7	14400	0.018	0.025	0.039	350	420	475
672210	600	15.3	14400	0.018	0.025	0.039	350	420	475
589359	750	15.9	18000	0.014	0.022	0.038	400	475	535
554410	750	15.9	18000	0.014	0.022	0.038	400	475	535
TBA	1000	18.2	24000	0.011	0.018	0.037	455	545	615

† Ampacities are based on Table 310.16 of the NEC 2020 Edition. Ampacities of insulated conductors rated up to and including 2000 Volts with not more than three current-carrying conductors in raceway, cable or direct buried based on ambient temperature of 30°C (86°F). Ampacities have been adjusted for more than three current-carrying conductors based on Table 310.15(C) 1.

