

4/C AL 600V XLPE XHHW-2 PVC Power Cable With Ground. Silicone Free

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



Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

- Conductor:** Class B compact stranded 8000 Series aluminum per ASTM B800 and ASTM B836
- Insulation:** Cross Linked Polyethylene (XLPE) Type XHHW-2
- Grounding Conductor:** Class B compact stranded 8000 Series aluminum per ASTM B800 and ASTM B836
- 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 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 B801 Concentric-Lay-Stranded Conductors of 8000 Series Aluminum Alloy
- ASTM B836 Compact Rounded Stranded Aluminum 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 AWG (XX{mm²}) 3E AL 4/C TYPE TC-ER XHHW-2 CDRS GW 1 X X AWG 3E AL 90{D}C JACKET SUNLIGHT RESISTANT DIRECT BURIAL 600V or 1000V {NOM}-ANCE



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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	Aluminum Weight	Approx. Weight
	AWG/ Kcmil	inch	mil	inch	No. x AWG	mil	inch	lb/1000ft	lb/1000ft
TBA	8	0.134	45	0.224	1 x 8	60	0.661	78	218
TBA	6	0.169	45	0.259	1 x 8	60	0.745	115	281
TBA	4	0.213	45	0.303	1 x 6	80	0.891	184	415
TBA	2	0.268	45	0.358	1 x 6	80	1.024	277	557
TBA	1	0.299	55	0.409	1 x 4	80	1.147	358	706
TBA	1/0	0.336	55	0.446	1 x 4	80	1.237	441	827
TBA	2/0	0.376	55	0.486	1 x 4	80	1.333	545	972
672251	3/0	0.423	55	0.533	1 x 4	80	1.447	678	1156
583727	4/0	0.475	55	0.585	1 x 2	80	1.572	867	1402
582123	250	0.520	65	0.650	1 x 1	110	1.789	1029	1772
672252	300	0.570	65	0.700	1 x 2	110	1.909	1408	1952
582124	350	0.616	65	0.746	1 x 1/0	110	2.021	1428	2305
578537	400	0.659	65	0.792	1 x 1	110	2.131	1601	2505
582121	400	0.659	65	0.792	1 x 3/0	110	2.237	1601	2584
582125	500	0.736	65	0.866	1 x 2/0	110	2.311	2027	3080
578536	500	0.736	65	0.866	1 x 1	110	2.311	1982	3035
596549	500	0.736	65	0.866	1 x 3/0	110	2.434	2062	3209
582126	500	0.736	65	0.866	1 x 250	110	2.470	2141	3281
582127	600	0.813	80	0.973	1 x 350	110	2.72	2616	3981
582250	600	0.813	80	0.973	1 x 4/0	110	2.720	2485	3812
578538	750	0.908	80	1.068	1 x 1/0	140	2.858	2953	4575
580014	750	0.908	80	1.068	1 x 3/0	140	2.858	3010	4625
TBA	900	0.999	80	1.159	1 x 1/0	140	3.09	3487	4625

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
TBA	8	2.6	396	1.070	1.345	0.037	28	32	36
TBA	6	3.0	630	0.675	0.848	0.035	32	40	44
TBA	4	3.6	1002	0.424	0.533	0.033	44	52	60
TBA	2	5.1	1593	0.266	0.334	0.032	60	72	80
TBA	1	5.7	2009	0.211	0.265	0.032	68	80	92
TBA	1/0	6.2	2534	0.168	0.211	0.031	80	96	108
TBA	2/0	6.7	3194	0.133	0.167	0.031	92	108	120
672251	3/0	7.2	4027	0.105	0.132	0.030	104	124	140
583727	4/0	7.9	5078	0.084	0.105	0.030	120	144	164
582123	250	8.9	6000	0.071	0.089	0.030	136	164	184
672252	300	12	7200	0.0578	0.0725	0.029	195	230	260
582124	350	12.1	8400	0.051	0.064	0.029	168	200	224
578537	400	13.9	9600	0.044	0.47	0.029	180	216	244
582121	400	13.9	9600	0.044	0.47	0.029	180	216	244
582125	500	13.9	12000	0.035	0.045	0.029	208	248	280
578536	500	13.9	12000	0.035	0.045	0.029	208	248	280
596549	500	14.6	12000	0.035	0.045	0.029	208	248	280
582126	500	14.9	12000	0.035	0.045	0.029	208	248	280
582127	600	16.3	14400	0.030	0.037	0.029	228	272	308
582250	600	16.2	14400	0.030	0.037	0.029	228	272	308
578538	750	17.1	18000	0.024	0.030	0.029	256	308	348
580014	750	17.1	18000	0.024	0.030	0.029	256	308	348
TBA	900	18.5	21600	0.020	0.021	0.025	284	340	384

† 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.

