

AL 600/1000V XLPE Insulation PVC Jacket XHHW-2. CT Rated -Sunlight Resistant - For Direct Burial - 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:

1. **Conductor:** Class B compact stranded 8000 Series aluminum per ASTM B800 and ASTM B836
2. **Insulation:** Cross Linked Polyethylene (XLPE) Type XHHW-2
3. **Grounding Conductor:** Class B compact stranded 8000 Series aluminum per ASTM B800 and ASTM B836
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:** 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® {UL} XXX AWG (XX{mm²}) 3E AL 4/C TYPE TC-ER XHHW-2 CDRS GW 1 X X AWG 3E AL 90°C JACKET SUNLIGHT RESISTANT DIRECT BURIAL 600V or 1000V {NOM}-ANCE



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Table 1 – Weights and Measurements

Stock Number	Cond. Size	Cond. Number	Strand Count	Diameter Over Conductor	Insul. Thickness	Ground	Jacket Thickness	Approx. OD	Aluminum Weight	Approx. Weight
	AWG/Kcmil		No. of Strands	inch	mil	No. x AWG	mil	inch	lb/1000ft	lb/1000ft
TBA	8	4	7	0.134	45	1 x 8	60	0.664	77	202
TBA	6	4	7	0.169	45	1 x 8	60	0.749	114	259
TBA	4	4	7	0.212	45	1 x 6	80	0.893	182	387
TBA	2	4	7	0.268	45	1 x 6	80	1.028	276	518
TBA	1	4	19	0.298	55	1 x 4	80	1.149	356	652
TBA	1/0	4	19	0.336	55	1 x 4	80	1.241	439	764
TBA	2/0	4	19	0.376	55	1 x 4	80	1.338	542	896
672251	3/0	4	16	0.422	55	1 x 4	80	1.446	678	1177
583727	4/0	4	19	0.474	55	1 x 2	80	1.572	868	1406
582123	250	4	22	0.520	65	1 x 1	110	1.789	1031	1745
672252	300	4	21	0.569	65	1 x 2	110	1.933	1204	1995
582124	350	4	35	0.615	65	1 x 1/0	110	2.045	1432	2327
578537	400	4	35	0.659	65	1 x 1	110	2.124	1601	2520
582121	400	4	35	0.659	65	1 x 3/0	110	2.237	1681	2615
578536	500	4	35	0.735	65	1 x 1	110	2.310	1982	2972
582125	500	4	35	0.735	65	1 x 2/0	110	2.350	2029	3096
596549	500	4	35	0.735	65	1 x 3/0	110	2.434	2062	3210
582126	500	4	35	0.735	65	1 x 250	110	2.467	2140	3327
582127	600	4	58	0.812	80	1 x 350	110	2.687	2616	3998
582250	600	4	58	0.812	80	1 x 4/0	110	2.695	2484	3837
578538	750	4	58	0.908	80	1 x 1/0	140	2.858	2954	4296
TBA	900	4	61	0.999	80	1 x 1/0	140	3.087	3515	4896

All dimensions are nominal and subject to normal manufacturing tolerances

◊ Cable marked with this symbol is a standard stock item

* Strand count meets minimum number per ASTM



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 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	4	2.7	316	1.072	1.290	0.052	28	32	36
TBA	6	4	3.0	503	0.674	0.812	0.051	32	40	44
TBA	4	4	3.6	801	0.424	0.510	0.048	44	52	60
TBA	2	4	5.1	1274	0.267	0.321	0.045	60	72	80
TBA	1	4	5.7	1606	0.211	0.254	0.046	68	80	92
TBA	1/0	4	6.2	2027	0.168	0.201	0.044	80	96	108
TBA	2/0	4	6.7	2555	0.133	0.160	0.043	92	108	120
672251	3/0	4	7.2	3221	0.105	0.126	0.042	104	124	140
583727	4/0	4	7.9	4062	0.084	0.100	0.041	120	144	164
582123	250	4	8.9	4800	0.071	0.086	0.041	136	164	184
672252	300	4	9.7	5760	0.059	0.071	0.041	156	184	208
582124	350	4	12.3	6720	0.050	0.062	0.040	168	200	224
578537	400	4	12.7	7680	0.044	0.054	0.040	180	216	244
582121	400	4	13.4	7680	0.044	0.054	0.040	180	216	244
578536	500	4	13.9	9600	0.035	0.044	0.039	208	248	280
582125	500	4	14.1	9600	0.035	0.044	0.039	208	248	280
596549	500	4	14.6	9600	0.035	0.044	0.039	208	248	280
582126	500	4	14.8	9600	0.035	0.044	0.039	208	248	280
582127	600	4	16.1	11520	0.029	0.037	0.039	228	272	308
582250	600	4	16.2	11520	0.029	0.037	0.039	228	272	308
578538	750	4	17.1	14400	0.024	0.031	0.038	256	308	348
TBA	900	4	18.5	17280	0.020	0.027	0.037	284	340	384

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

* Ampacities have been adjusted for more than Three Current-Carrying Conductors.

