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

Type TC-ER Power Cable 600 or 1000 Volt 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 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 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 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	Jacket Color
	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	0.668	83	206	BK
TBA	6	4	7	0.169	45	1 x 8	60	0.753	119	262	BK
TBA	4	4	7	0.213	45	1 x 6	80	0.899	184	384	BK
TBA	2	4	7	0.268	45	1 x 6	80	1.032	280	517	BK
TBA	1	4	19	0.299	55	1 x 4	80	1.156	358	651	BK
TBA	1/0	4	19	0.336	55	1 x 4	80	1.245	438	758	BK
TBA	2/0	4	19	0.376	55	1 x 4	80	1.342	542	892	BK
672251	3/0	4	16	0.423	55	1 x 4	80	1.476	678	1127	BK
583727	4/0	4	19	0.475	55	1 x 2	80	1.601	868	1357	BK
582123	250	4	22	0.52	65	1 x 1	110	1.813	1031	1694	BK
672252	300	4	21	0.57	65	1 x 2	110	1.934	1205	1921	BK
582124	350	4	35	0.616	65	1 x 1/0	110	2.045	1433	2216	BK
578537	400	4	35	0.659	65	1 x 1	110	2.149	1602	2434	BK
459461	400	4	35	0.659	65	1 x 1/0	115	2.161	1623	2479	BK
582121	400	4	35	0.659	65	1 x 3/0	110	2.263	1682	2531	BK
578536	500	4	34	0.736	65	1 x 1	110	2.335	1983	2890	BK
582125	500	4	34	0.736	65	1 x 2/0	110	2.35	2030	2960	BK
596549	500	4	34	0.736	65	1 x 3/0	110	2.46	2063	3043	BK
582126	500	4	34	0.736	65	1 x 250	110	2.467	2141	3137	BK
665038	500	4	34	0.736	65	1 x 4/0	115	2.47	2104	3112	BK
458383	600	4	37	0.813	80	1 x 1	110	2.66	2363	3756	BK
582250	600	4	37	0.813	80	1 x 4/0	110	2.695	2485	3668	BK
582127	600	4	37	0.813	80	1 x 350	140	2.799	2617	3981	BK
578538	750	4	58	0.908	80	1 x 1/0	140	2.887	2955	4262	BK
TBA	900	4	61	0.999	80	1 x 1/0	140	3.091	3489	4840	BK

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
TBA stock codes are estimations only and actual product may vary. Please wait until a stock code is assigned to purchase connectors and/or fittings.

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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 75°C	Allowable Ampacity At 90°C
	AWG/ Kcmil		inch	lb	Ω/1000ft	Ω/1000ft	Ω/1000ft	Amp	Amp
TBA	8	4	2.7	396	1.071	1.334	0.052	32	36
TBA	6	4	3	629	0.674	0.84	0.051	40	44
TBA	4	4	3.6	1001	0.424	0.528	0.048	52	60
TBA	2	4	5.2	1592	0.266	0.331	0.045	72	80
TBA	1	4	5.8	2008	0.211	0.263	0.046	80	92
TBA	1/0	4	6.2	2534	0.167	0.208	0.044	96	108
TBA	2/0	4	6.7	3194	0.133	0.166	0.043	108	120
672251	3/0	4	7.4	4027	0.105	0.131	0.042	124	140
583727	4/0	4	8	5078	0.084	0.105	0.041	144	164
582123	250	4	9.1	6000	0.07	0.087	0.041	164	184
672252	300	4	9.7	7200	0.059	0.071	0.041	184	208
582124	350	4	12.3	8400	0.051	0.064	0.04	200	224
578537	400	4	12.9	9600	0.044	0.055	0.04	216	244
459461	400	4	13	9600	0.044	0.055	0.04	216	244
582121	400	4	13.6	9600	0.044	0.055	0.04	216	244
578536	500	4	14	12000	0.036	0.045	0.039	248	280
582125	500	4	14.1	12000	0.036	0.045	0.039	248	280
596549	500	4	14.8	12000	0.036	0.045	0.039	248	280
582126	500	4	14.8	12000	0.036	0.045	0.039	248	280
665038	500	4	14.8	12000	0.036	0.045	0.039	248	280
458383	600	4	16	14400	0.03	0.038	0.039	272	308
582250	600	4	16.2	14400	0.03	0.038	0.039	272	308
582127	600	4	16.8	14400	0.03	0.038	0.039	272	308
578538	750	4	17.3	18000	0.023	0.03	0.038	308	348
TBA	900	4	18.5	21600	0.019	0.025	0.037	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.

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