

3/C AL 600V XLPE XHHW-2 LSZH-TP Power Cable With Ground

Type TC-ER Power Cable 600Volt Three Conductor Aluminum, Cross Linked Polyethylene (XLPE) insulation XHHW-2 Thermoplastic SOLONON® Low Smoke Zero Halogen (LSZH-TP) Jacket with 1 Bare AL Ground

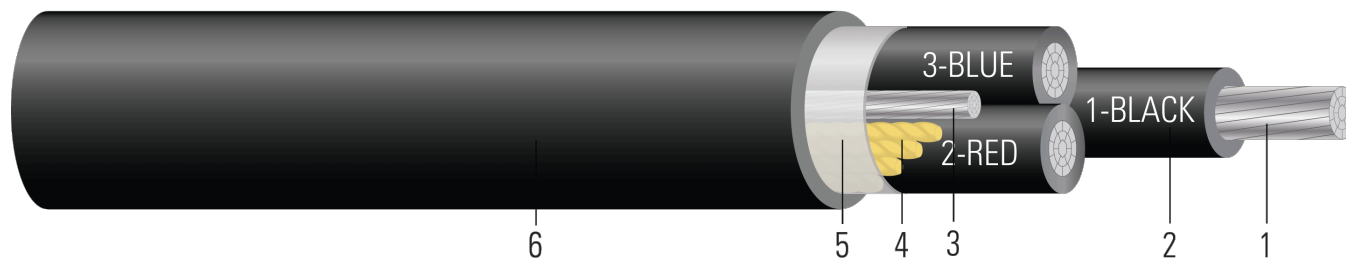


Image not to scale. See Table 1 for dimensions.

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:** Thermoplastic SOLONON® Low Smoke Zero Halogen (LSZH-TP) 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.

SPECIFICATIONS:

- ASTM B800 8000 Series Aluminum Alloy Wire
- ASTM B836 Compact Rounded Stranded Aluminum 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 Flame Test (70,000) BTU/hr Vertical Tray Test

SAMPLE PRINT LEGEND:

SOUTHWIRE EXXXXX #P# (UL) [#AWG Or #kcmil] AL XHHW-2 XLPE/LSZH 600V Type TC-ER For CT USE SUN. RES. For DIRECT BURIAL FT4 [-25°C] YEAR (NESC) [SEQUENTIAL FEET MARKS]



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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	0.604	63	177
TBA	6	0.169	45	0.259	1 x 8	60	0.679	90	225
TBA	4	0.213	45	0.303	1 x 6	60	0.774	144	305
TBA	2	0.268	45	0.358	1 x 6	80	0.933	214	448
TBA	1	0.299	55	0.409	1 x 4	80	1.043	278	563
TBA	1/0	0.336	55	0.446	1 x 4	80	1.123	341	656
TBA	2/0	0.376	55	0.486	1 x 4	80	1.210	418	768
TBA	3/0	0.423	55	0.533	1 x 4	80	1.311	518	909
TBA	4/0	0.475	55	0.585	1 x 2	80	1.424	666	1103
TBA	250	0.520	65	0.650	1 x 2	80	1.564	775	1295
TBA	300	0.570	65	0.700	1 x 2	80	1.672	918	1488
TBA	350	0.616	65	0.746	1 x 2	110	1.831	1060	1787
TBA	500	0.736	65	0.866	1 x 1	110	2.091	1507	2379
TBA	600	0.813	80	0.973	1 x 1	110	2.322	1792	2853
TBA	750	0.908	80	1.068	1 x 1/0	110	2.527	2240	3434

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	2.4	297	1.070	1.345	0.034	35	40	45
TBA	6	2.7	472	0.675	0.848	0.032	40	50	55
TBA	4	3.1	751	0.424	0.533	0.030	55	65	75
TBA	2	3.7	1194	0.266	0.334	0.028	75	90	100
TBA	1	5.2	1506	0.211	0.265	0.029	85	100	115
TBA	1/0	5.6	1901	0.168	0.211	0.028	100	120	135
TBA	2/0	6.0	2396	0.133	0.167	0.028	115	135	150
TBA	3/0	6.6	3020	0.105	0.132	0.027	130	155	175
TBA	4/0	7.1	3809	0.084	0.105	0.026	150	180	205
TBA	250	7.8	4500	0.071	0.089	0.027	170	205	230
TBA	300	8.4	5400	0.059	0.075	0.026	195	230	260
TBA	350	9.2	6300	0.051	0.064	0.026	210	250	280
TBA	500	12.5	9000	0.035	0.045	0.025	260	310	350
TBA	600	13.9	10800	0.030	0.038	0.026	285	340	385
TBA	750	15.2	13500	0.024	0.031	0.025	320	385	435



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† 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.

