

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

Type MC Power Cable 600Volt Three Conductor Aluminum, Cross Linked Polyethylene (XLPE) insulation XHHW-2 Aluminum Interlocked Armor (AIA), Polyvinyl Chloride (PVC) Jacket with 1 Bare AL Ground. Silicone Free.

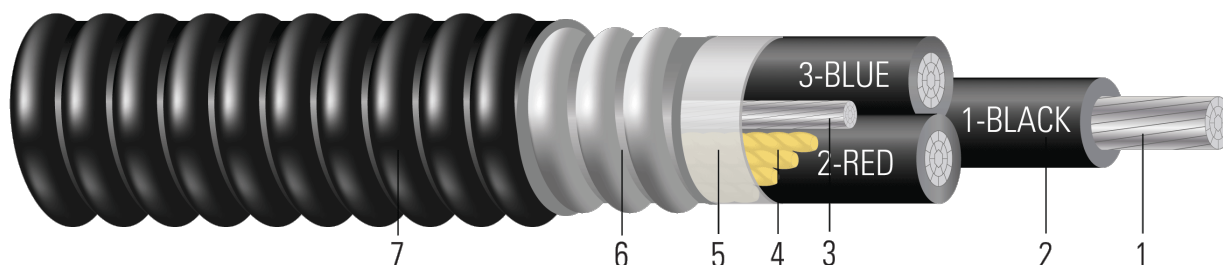


Image not to scale. See Table 1 for dimensions.

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:** Polypropylene tape
- Armor:** Aluminum Interlocked Armor (AIA)
- Overall Jacket:** Polyvinyl Chloride (PVC) Jacket

APPLICATIONS AND FEATURES:

Southwire's 600 Volt Type MC 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. Silicone Free.

SPECIFICATIONS:

- ASTM B800 8000 Series Aluminum Alloy Wire
- ASTM B836 Compact Rounded Stranded Aluminum Conductors
- UL 44 Thermoset-Insulated Wires and Cables
- UL 1569 Metal-Clad 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_DUAL} SOUTHWIRE {UL} E96627 3/C XXX KCMIL COMPACT AL.--- {ALUMAFLEX}{R} AA8176 XX MILS XLP 600 VOLTS GW 1 X X AWG 3E AL TYPE MC FOR CT USE SUN. RES. DIRECT BURIAL 90{D}C USA



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Table 1 – Weights and Measurements

Stock Number	Cond. Size	Diameter Over Conductor	Insul. Thickness	Diameter Over Insulation	Ground	Diameter Over Armor	Jacket Thickness	Approx. OD	Aluminum Weight	Approx. Weight
	AWG/ Kcmil	inch	mil	inch	No. x AWG	inch	mil	inch	lb/1000ft	lb/1000ft
TBA	8	0.134	45	0.224	1 x 8	0.694	50	0.794	145	272
TBA	6	0.169	45	0.259	1 x 8	0.769	50	0.869	183	330
TBA	4	0.213	45	0.303	1 x 6	0.864	50	0.964	248	422
TBA	2	0.268	45	0.358	1 x 6	0.983	50	1.083	334	543
TBA	1	0.299	55	0.409	1 x 4	1.093	50	1.193	412	671
TBA	1/0	0.336	55	0.446	1 x 4	1.173	50	1.273	485	771
TBA	2/0	0.376	55	0.486	1 x 4	1.260	50	1.360	574	891
TBA	3/0	0.423	55	0.533	1 x 4	1.361	50	1.461	687	1041
TBA	4/0	0.475	55	0.585	1 x 2	1.474	50	1.574	849	1245
TBA	250	0.520	65	0.650	1 x 2	1.614	60	1.734	977	1488
TBA	300	0.570	65	0.700	1 x 2	1.722	60	1.842	1133	1694
671658	350	0.616	65	0.746	1 x 2	1.929	65	2.061	1357	1966
561053	500	0.736	65	0.866	1 x 1	2.189	65	2.321	1844	2592
TBA	600	0.813	80	0.973	1 x 1	2.412	75	2.562	2180	3181
641478	750	0.908	80	1.068	1 x 1/0	2.625	80	2.791	2641	3430

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	5.6	297	1.070	1.345	0.034	35	40	45
TBA	6	6.1	472	0.675	0.848	0.032	40	50	55
TBA	4	6.8	751	0.424	0.533	0.030	55	65	75
TBA	2	7.6	1194	0.266	0.334	0.028	75	90	100
TBA	1	8.4	1506	0.211	0.265	0.029	85	100	115
TBA	1/0	8.9	1901	0.168	0.211	0.028	100	120	135
TBA	2/0	9.5	2396	0.133	0.167	0.028	115	135	150
TBA	3/0	10.2	3020	0.105	0.132	0.027	130	155	175
TBA	4/0	11.0	3809	0.084	0.105	0.026	150	180	205
TBA	250	12.1	4500	0.071	0.089	0.027	170	205	230
TBA	300	12.9	5400	0.059	0.075	0.026	195	230	260
671658	350	14.3	6300	0.051	0.064	0.026	210	250	280
561053	500	16.1	9000	0.035	0.045	0.025	260	310	350
TBA	600	17.9	10800	0.030	0.038	0.026	285	340	385
641478	750	19.4	13500	0.024	0.031	0.025	320	385	435



† 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.

