

AL 600/1000V XLPE Insulation AIA PVC Jacket. XHHW-2

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.

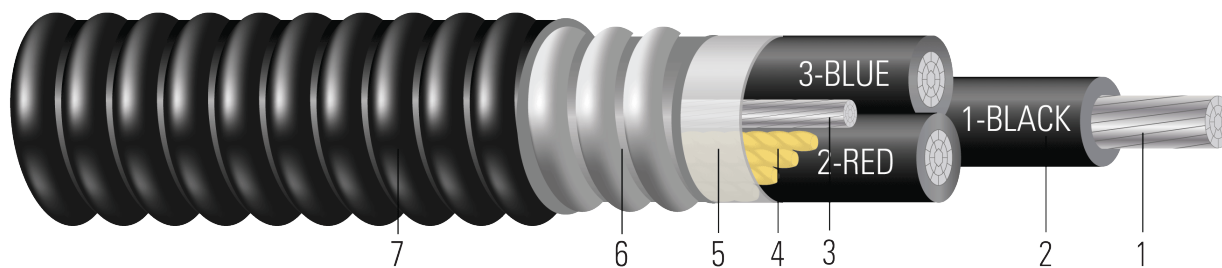


Image not to scale. See Table 1 for dimensions.

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 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 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	Cond. Number	Strand Count	Diameter Over Conductor	Insul. Thickness	Dia. Over Insulation	Ground	Dia. Over Armor	Jacket Thickness	Approx. OD	Aluminum Weight	Approx. Weight
	AWG/ Kcmil		No. of Strands	inch	mil	inch	No. x AWG	inch	mil	inch	lb/1000ft	lb/1000ft
TBA	8	3	7	0.134	45	0.224	1 x 8	0.705	50	0.805	138	268
TBA	6	3	7	0.169	45	0.259	1 x 8	0.781	50	0.881	178	328
TBA	4	3	7	0.212	45	0.302	1 x 6	0.874	50	0.974	246	422
TBA	2	3	7	0.268	45	0.358	1 x 6	0.995	50	1.095	336	546
TBA	1	3	19	0.298	55	0.408	1 x 4	1.103	50	1.203	416	676
TBA	1/0	3	19	0.336	55	0.446	1 x 4	1.185	50	1.285	491	777
TBA	2/0	3	19	0.376	55	0.486	1 x 4	1.271	50	1.371	582	897
TBA	3/0	3	19	0.422	55	0.532	1 x 4	1.371	50	1.471	698	1047
TBA	4/0	3	19	0.474	55	0.584	1 x 2	1.583	60	1.703	862	1298
TBA	250	3	37	0.520	65	0.650	1 x 2	1.726	60	1.846	1026	1543
TBA	300	3	37	0.569	65	0.699	1 x 2	1.831	60	1.951	1187	1750
671658	350	3	35	0.615	65	0.745	1 x 2	1.929	65	2.061	1356	1965
561053	500	3	35	0.735	65	0.865	1 x 1	2.188	65	2.320	1844	2592
TBA	600	3	61	0.812	80	0.972	1 x 1	2.421	75	2.571	2166	3140
641478	750	3	58	0.908	80	1.068	1 x 1/0	2.624	80	2.790	2650	3613

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	3	5.6	297	1.072	1.290	0.052	35	40	45
TBA	6	3	6.1	472	0.674	0.812	0.051	40	50	55
TBA	4	3	6.8	751	0.424	0.510	0.048	55	65	75
TBA	2	3	7.6	1194	0.267	0.321	0.045	75	90	100
TBA	1	3	8.4	1506	0.211	0.254	0.046	85	100	115
TBA	1/0	3	8.9	1900	0.168	0.201	0.044	100	120	135
TBA	2/0	3	9.5	2395	0.133	0.160	0.043	115	135	150
TBA	3/0	3	10.2	3020	0.105	0.126	0.042	130	155	175
TBA	4/0	3	11.9	3808	0.084	0.100	0.041	150	180	205
TBA	250	3	12.9	4500	0.071	0.086	0.041	170	205	230
TBA	300	3	13.6	5400	0.059	0.071	0.041	195	230	260
671658	350	3	14.4	6300	0.050	0.062	0.040	210	250	280
561053	500	3	16.2	9000	0.035	0.044	0.039	260	310	350
TBA	600	3	17.9	10000	0.029	0.037	0.039	285	340	385
641478	750	3	19.5	10000	0.024	0.031	0.038	320	385	435

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

