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

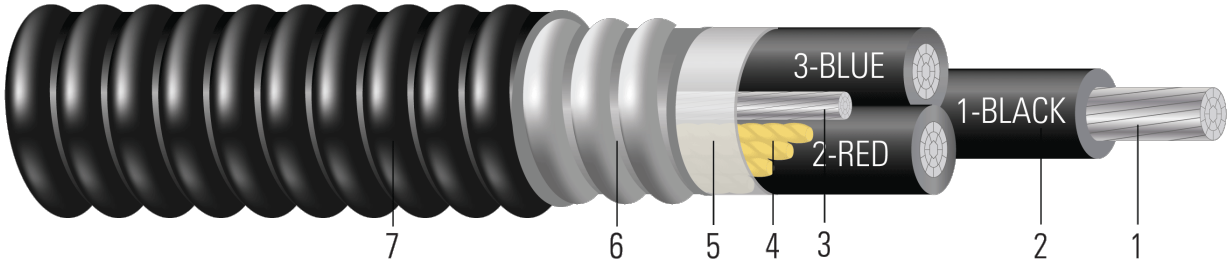

Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

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:** Polypropylene tape
6. **Armor:** Aluminum Interlocked Armor (AIA)
7. **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 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}® AA8176 XX MILS XLP 600 VOLTS GW 1 X X AWG 3E AL TYPE MC FOR CT USE SUN. RES. DIRECT BURIAL 90°C USA

Table 1 – Weights and Measurements

Stock Number	Cond. Size	Cond. Number	Strand Count	Diameter Over Conductor	Insul. Thickness	Ground	Dia. Over Armor	Jacket Thickness	Approx. OD	Aluminum Weight	Approx. Weight	Jacket Color
	AWG/ Kcmil		No. of Strands	inch	mil	No. x AWG	inch	mil	inch	lb/1000ft	lb/1000ft	
TBA	8	3	7	0.134	45	1 x 8	0.696	50	0.796	137	264	Black
TBA	6	3	7	0.169	45	1 x 8	0.771	50	0.871	177	322	Black
TBA	4	3	7	0.212	45	1 x 6	0.864	50	0.964	245	414	Black
TBA	2	3	7	0.268	45	1 x 6	0.985	50	1.085	335	538	Black
TBA	1	3	19	0.298	55	1 x 4	1.093	50	1.193	415	664	Black
TBA	1/0	3	19	0.336	55	1 x 4	1.175	50	1.275	490	766	Black
TBA	2/0	3	19	0.376	55	1 x 4	1.262	50	1.362	581	886	Black
TBA	3/0	3	19	0.422	55	1 x 4	1.361	50	1.461	697	1036	Black
TBA	4/0	3	19	0.474	55	1 x 2	1.573	60	1.693	861	1283	Black
TBA	250	3	37	0.52	65	1 x 2	1.716	60	1.836	1025	1527	Black
TBA	300	3	37	0.569	65	1 x 2	1.822	60	1.942	1277	1822	Black
671658	350	3	35	0.615	65	1 x 2	1.929	65	2.061	1356	1976	Black
561053	500	3	35	0.735	65	1 x 1	2.188	65	2.320	1844	2603	Black
646658	500	3	35	0.735	65	1 x 250	2.188	65	2.320	2002	2720	Black
TBA	600	3	61	0.812	80	1 x 1	2.412	75	2.562	2291	3243	Black
641478	750	3	58	0.908	80	1 x 1/0	2.624	80	2.790	2650	3630	Black

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.

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	Capacitive Reactance @ 60Hz	Inductive Reactance @ 60Hz	Allowable Ampacity At 75°C	Allowable Ampacity At 90°C
	AWG/ Kcmil		inch	lb	Ω/1000ft	Ω/1000ft	MΩ*1000ft	Ω/1000ft	Amp	Amp
TBA	8	3	5.6	297	1.072	1.290	0.034	0.052	40	45
TBA	6	3	6.1	472	0.674	0.812	0.029	0.051	50	55
TBA	4	3	6.7	751	0.424	0.510	0.023	0.048	65	75
TBA	2	3	7.6	1194	0.267	0.321	0.019	0.045	90	100
TBA	1	3	8.4	1506	0.211	0.254	0.021	0.046	100	115
TBA	1/0	3	8.9	1900	0.168	0.201	0.019	0.044	120	135
TBA	2/0	3	9.5	2395	0.133	0.160	0.017	0.043	135	150
TBA	3/0	3	10.2	3020	0.105	0.126	0.015	0.042	155	175
TBA	4/0	3	11.9	3808	0.084	0.100	0.014	0.041	180	205
TBA	250	3	12.9	4500	0.071	0.086	0.015	0.041	205	230
TBA	300	3	13.6	5400	0.059	0.071	0.013	0.041	230	260
671658	350	3	14.4	6300	0.050	0.062	0.012	0.040	250	280
561053	500	3	16.2	9000	0.035	0.044	0.010	0.039	310	350
646658	500	3	16.2	9000	0.035	0.044	0.010	0.039	310	350
TBA	600	3	17.9	10800	0.029	0.037	0.012	0.039	340	385
641478	750	3	19.5	13500	0.024	0.031	0.011	0.038	385	435

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