



# 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:

- 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}® 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
	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
TBA	6	3	7	0.169	45	1 x 8	0.771	50	0.871	177	322
TBA	4	3	7	0.212	45	1 x 6	0.864	50	0.964	245	414
TBA	2	3	7	0.268	45	1 x 6	0.985	50	1.085	335	538
TBA	1	3	19	0.298	55	1 x 4	1.093	50	1.193	415	664
TBA	1/0	3	19	0.336	55	1 x 4	1.175	50	1.275	490	766
TBA	2/0	3	19	0.376	55	1 x 4	1.262	50	1.362	581	886
TBA	3/0	3	19	0.422	55	1 x 4	1.361	50	1.461	697	1036
TBA	4/0	3	19	0.474	55	1 x 2	1.573	60	1.693	861	1283
TBA	250	3	37	0.52	65	1 x 2	1.716	60	1.836	1025	1527
TBA	300	3	37	0.569	65	1 x 2	1.822	60	1.942	1277	1822
671658	350	3	35	0.615	65	1 x 2	1.929	65	2.061	1356	1976
561053	500	3	35	0.735	65	1 x 1	2.188	65	2.320	1844	2603
646658	500	3	35	0.735	65	1 x 250	2.188	65	2.320	2002	2720
TBA	600	3	61	0.812	80	1 x 1	2.412	75	2.562	2291	3243
641478	750	3	58	0.908	80	1 x 1/0	2.624	80	2.790	2650	3630

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	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.

