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

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

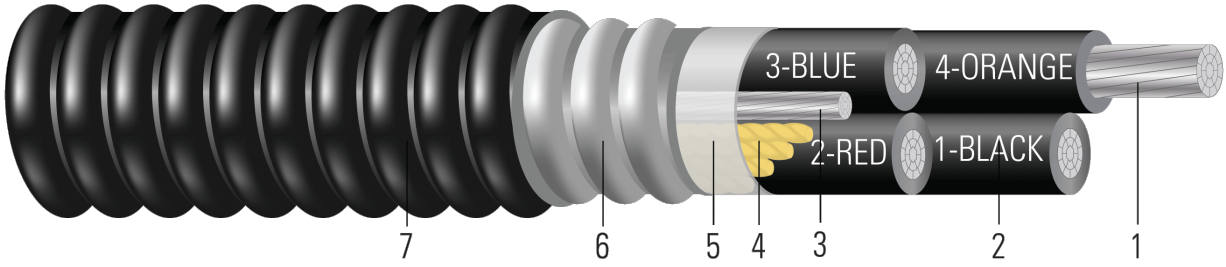

Image not to scale. See Table 1 for dimensions.

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 1309 Marine Shipboard Cable
- UL 1569 Metal-Clad Cables
- UL 1685 FT4 Vertical-Tray Fire Propagation and Smoke Release Test
- 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-58-679 Control Cable Conductor Identification Method 4
- ICEA S-95-658 (NEMA WC70) Power Cables Rated 2000 Volts or Less for the Distribution of Electrical Energy

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SAMPLE PRINT LEGEND:

{SQFTG_DUAL} SOUTHWIRE {UL} E96627 4/C XXX KCMIL COMPACT AL.--- {ALUMAFLEX}® AA8176 XX MILS XLP 600 VOLTS GW 1 X X/0 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	Dia. Over Insulation	Ground	Dia. Over Armor	Jacket Thickness	Approx. OD	Jacket Color
	AWG/ Kcmil		No. of Strands	inch	mil	inch	No. x AWG	inch	mil	inch	
TBA	8	4	7	0.134	45	0.224	1 x 8	0.755	50	0.855	BK
TBA	6	4	7	0.169	45	0.259	1 x 8	0.84	50	0.94	BK
TBA	1/0	4	19	0.336	55	0.446	1 x 4	1.292	50	1.392	BK
TBA	2/0	4	19	0.376	55	0.486	1 x 4	1.389	50	1.489	BK
TBA	3/0	4	19	0.423	55	0.533	1 x 4	1.603	50	1.703	BK
TBA	4/0	4	19	0.475	55	0.585	1 x 2	1.729	50	1.829	BK
644656	250	4	22	0.52	65	0.65	1 x 1	1.911	60	2.037	BK
644652	350	4	35	0.616	65	0.746	1 x 2/0	2.143	60	2.269	BK
644649	500	4	34	0.736	65	0.866	1 x 2/0	2.433	75	2.59	BK
TBA	600	4	61	0.813	80	0.973	1 x 1	2.668	75	2.818	BK
640988	750	4	58	0.908	80	1.068	1 x 1/0	2.899	75	3.057	BK

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	Inductive Reactance @ 60Hz	Allowable Ampacity At 75°C	Allowable Ampacity At 90°C
	AWG/ Kcmil		inch	lb	Ω/1000ft	Ω/1000ft	Ω/1000ft	Amp	Amp
TBA	8	4	6	396	1.071	1.334	0.052	32	36
TBA	6	4	6.6	629	0.674	0.84	0.051	40	44
TBA	1/0	4	9.7	2534	0.167	0.208	0.044	96	108
TBA	2/0	4	10.4	3194	0.133	0.166	0.043	108	120
TBA	3/0	4	11.9	4027	0.105	0.131	0.042	124	140
TBA	4/0	4	12.8	5078	0.084	0.105	0.041	144	164
644656	250	4	14.3	6000	0.07	0.087	0.041	164	184
644652	350	4	15.9	8400	0.051	0.064	0.04	200	224
644649	500	4	18.1	12000	0.036	0.045	0.039	248	280
TBA	600	4	19.7	14400	0.03	0.038	0.039	272	308
640988	750	4	21.4	18000	0.023	0.03	0.038	308	348

* Ampacities based upon 2023 NEC Table 310.16. See NEC sections 310.15 and 110.14(C) for additional requirements.
* Ampacities have been adjusted for more than Three Current-Carrying Conductors.

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