

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

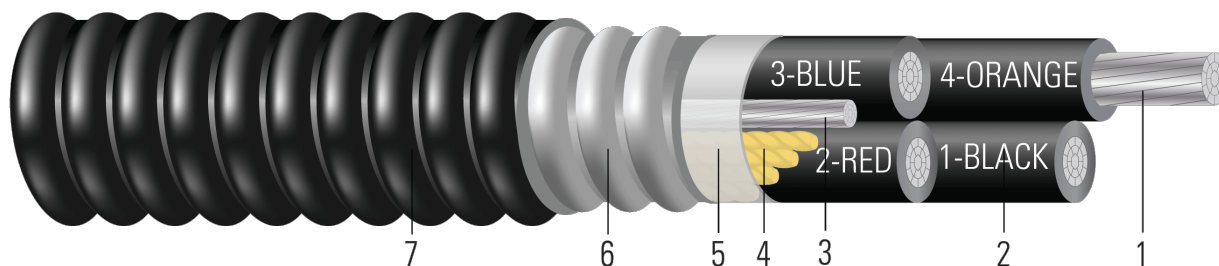


Image not to scale. See Table 1 for dimensions.

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 Control 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

SAMPLE PRINT LEGEND:

{SQFTG_DUAL} SOUTHWIRE MASTER-DESIGN {UL} E96627 4/C XXX KCMIL COMPACT AL.--- {ALUMAFLEX}{R} AA8176 XX MILS XLP 600 VOLTS GW 1 X X/0 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	0.764	50	0.864	163	295
TBA	6	0.169	45	0.259	1 x 8	0.848	50	0.948	214	365
TBA	1/0	0.336	55	0.446	1 x 4	1.301	50	1.401	610	883
TBA	2/0	0.376	55	0.486	1 x 4	1.398	50	1.498	728	1026
TBA	3/0	0.422	55	0.532	1 x 4	1.609	60	1.729	878	1247
TBA	4/0	0.474	55	0.584	1 x 2	1.735	60	1.855	1120	1523
644656	250	0.520	65	0.650	1 x 2	1.887	65	2.019	1318	1859
644652	350	0.615	65	0.745	1 x 2	2.118	65	2.250	1784	2421
644649	500	0.735	65	0.865	1 x 2/0	2.408	80	2.574	2403	3216
TBA	600	0.812	80	0.972	1 x 1	2.674	75	2.824	2782	3656
640988	750	0.908	80	1.068	1 x 1/0	2.896	80	3.062	3409	4356

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	6.0	396	1.072	1.290	0.052	28	32	36
TBA	6	6.6	629	0.674	0.812	0.051	32	40	44
TBA	1/0	9.8	2534	0.168	0.201	0.044	80	96	108
TBA	2/0	10.4	3194	0.133	0.160	0.043	92	108	120
TBA	3/0	12.1	4027	0.105	0.126	0.042	104	124	140
TBA	4/0	12.9	5078	0.084	0.100	0.041	120	144	164
644656	250	14.1	6000	0.071	0.086	0.041	136	164	184
644652	350	15.7	8400	0.050	0.062	0.040	168	200	224
644649	500	18.0	12000	0.035	0.044	0.039	208	248	280
TBA	600	19.7	14400	0.029	0.037	0.039	228	272	308
640988	750	21.4	18000	0.024	0.031	0.038	256	308	348

† 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.

