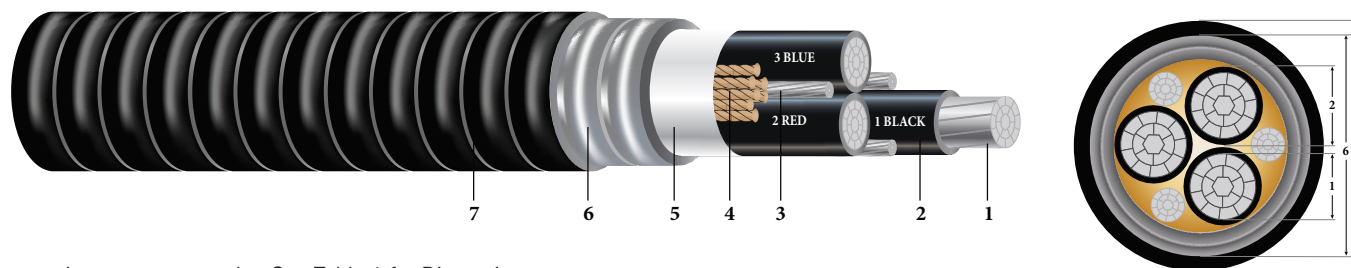


## 3/C AL 600V XLPE 50% Ground AIA PVC Power Cable Type MC

Type MC Power Cable 600Volt Three Conductor Aluminum, Cross Linked Polyethylene (XLPE) insulation XHHW-2 Three Bare AL 50% Ground Aluminum Interlocked Armor (AIA), Polyvinyl Chloride (PVC) Jacket with. Silicone Free.



Images 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:** Three separate ground wires with a combined circular mil of 50% of the phase conductor. Class B compact stranded 8000 Series aluminum per ASTM B800 and ASTM B836
4. **Filler:** Paper for 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. The ground is sized to 50% of the phase conductor with three separate bare grounds one in each interstecie between conductors. The cable is made Silicone Free.

### SPECIFICATIONS:

- ASTM B800 8000 Series Aluminum Alloy Wire
- ASTM B836 Compact Rounded Stranded Aluminum Conductors
- UL 44 Thermoset Insulated wires and cables
- UL 1569 Metal-Clad Cables
- UL 1685 - Flame Test
- IEEE 1202/FT4 - Flame Test (70,000 Btu/hr Vertical Tray Test)
- 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:

SOUTHWIRE EXXXXX #P# (UL) [#AWG Or #kcmil] AL XHHW-2 XLPE/PVC AIA 600V Type MC For CT USE SUN. RES. For DIRECT BURIAL FT4 YEAR (NECS) [SEQUENTIAL FEET MARKS]



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**Table 1 – Weights & Measurements**

Stock Code	Cond. Size	Dia Over Cond. (1)	Insul. Thickness	Dia Over Insul. (2)	Dia. Over Armor (6)	Ground No. x AWG	Jacket Thickness mils	Approx. OD (7) inches	Aluminum Weight lbs./MFT	Approx. Weight lbs./MFT
	AWG	inches	inches	inches	inches					
TBA	1/0	0.336	55	0.446	1.173	3 x 6	50	1.273	520	806
TBA	2/0	0.376	55	0.486	1.260	3 x 6	50	1.360	609	926
TBA	3/0	0.423	55	0.533	1.361	3 x 4	50	1.461	767	1120
TBA	4/0	0.475	55	0.585	1.474	3 x 4	50	1.574	905	1301
TBA	250	0.520	65	0.650	1.614	3 x 2	60	1.734	1103	1615
TBA	300	0.570	65	0.700	1.722	3 x 2	60	1.842	1259	1820
649332	350	0.616	65	0.746	1.921	3 x 2	60	2.041	1494	2112
646658	500	0.736	65	0.866	2.181	1 x 250	60	2.301	2016	2760
TBA	600	0.813	80	0.973	2.412	3 x 1/0	75	2.562	2401	3403
576220	750	0.908	80	1.068	2.617	3 x 2/0	75	2.767	2940	4066

All dimensions are nominal and subject to normal manufacturing tolerances

**Table 2 – Electrical and Engineering Data**

Stock Code	Cond. Size AWG	Min. Bending Radius Inches	Max. Pull Tension lbs.	Resistance		Reactance $X_L$ @ 60Hz $\Omega$ /MFT	$\emptyset$ Short Circuit Current 6 Cycles Amps	Allowable Ampacities <sup>†</sup>		
				DC @ 25°C $\Omega$ /MFT	AC @ 90°C $\Omega$ /MFT			60 °C Amps	75 °C Amps	90 °C Amps
TBA	1/0	8.9	1901	0.168	0.211	0.028	24209	101	120	135
TBA	2/0	9.5	2396	0.133	0.167	0.028	30513	112	134	150
TBA	3/0	10.2	3020	0.105	0.132	0.027	38468	131	156	175
TBA	4/0	11.0	3809	0.084	0.105	0.026	48509	153	183	205
TBA	250	12.1	4500	0.071	0.089	0.027	57313	172	205	230
TBA	300	12.9	5400	0.059	0.075	0.026	68775	195	232	260
649332	350	14.3	6300	0.051	0.064	0.026	80238	210	250	280
646658	500	16.1	9000	0.035	0.045	0.025	114625	262	313	350
TBA	600	17.9	10800	0.030	0.038	0.026	137550	288	344	385
576220	750	19.4	13500	0.024	0.031	0.025	171938	326	389	435

<sup>†</sup> Ampacities are based on Table 310.15 (B)(16) of the NEC, 2014 Edition. Ampacities of insulated conductors rated up to and including 2000 Volts, based on ambient temperature of 30°C (86°F)

