

## AL 600/1000V XLPE Insulation 50% Ground 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 Three Bare AL 50% Ground Aluminum Interlocked Armor (AIA), Polyvinyl Chloride (PVC) Jacket with. Silicone Free.

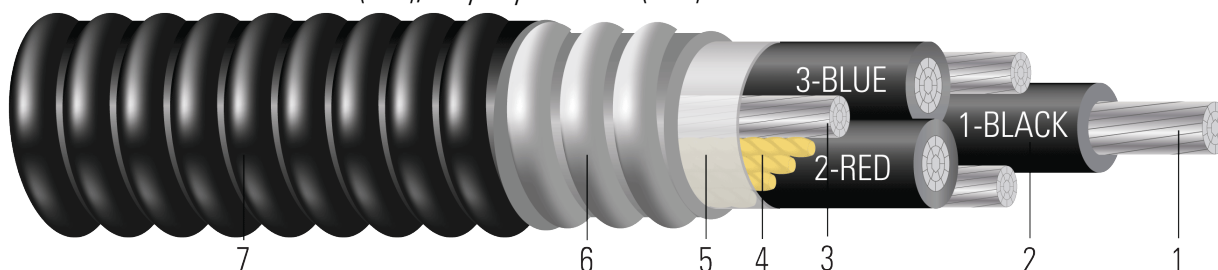


Image not to scale. See Table 1 for dimensions.

### 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:** 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 filler or Polypropylene filler
5. **Binder:** Polypropylene tape
6. **Aarmor:** 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. 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 3 X XX 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          | 1/0        | 3            | 19             | 0.336                   | 55               | 3 x 6     | 1.175           | 50               | 1.275      | 490             | 766            |
| TBA          | 2/0        | 3            | 19             | 0.376                   | 55               | 3 x 6     | 1.262           | 50               | 1.362      | 581             | 886            |
| TBA          | 3/0        | 3            | 19             | 0.422                   | 55               | 3 x 4     | 1.361           | 50               | 1.461      | 697             | 1036           |
| TBA          | 4/0        | 3            | 19             | 0.474                   | 55               | 3 x 4     | 1.573           | 60               | 1.693      | 861             | 1283           |
| TBA          | 250        | 3            | 35             | 0.52                    | 65               | 3 x 2     | 1.716           | 60               | 1.836      | 1025            | 1527           |
| TBA          | 300        | 3            | 35             | 0.569                   | 65               | 3 x 2     | 1.822           | 60               | 1.942      | 1277            | 1822           |
| 649332       | 350        | 3            | 35             | 0.615                   | 65               | 3 x 2     | 1.929           | 65               | 2.061      | 1483            | 2081           |
| 677353       | 600        | 3            | 41             | 0.812                   | 80               | 3 x 1/0   | 2.402           | 80               | 2.568      | 2386            | 3954           |
| 576220       | 750        | 3            | 58             | 0.908                   | 80               | 3 x 2/0   | 2.624           | 80               | 2.790      | 2930            | 4071           |

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          | 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                        |
| 649332       | 350        | 3            | 14.4               | 6300             | 0.050                | 0.062                | 0.012                       | 0.040                      | 250                        | 280                        |
| 677353       | 600        | 3            | 18.0               | 10800            | 0.029                | 0.037                | 0.012                       | 0.039                      | 340                        | 385                        |
| 576220       | 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.

