# 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.

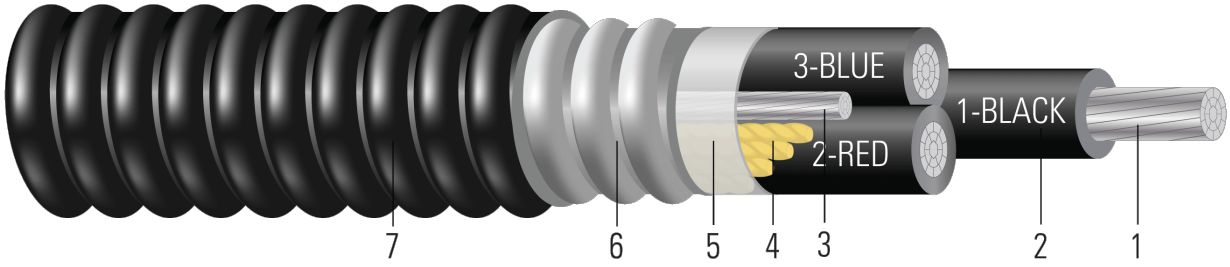



Image not to scale. See Table 1 for dimensions.

## CONSTRUCTION:

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 1569 Metal-Clad Cables
- 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-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


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## 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 | 3 | 7 | 0.134 | 45 | 0.224 | 1 x 8 | 0.697 | 50 | 0.797 | BK |
| TBA | 6 | 3 | 7 | 0.169 | 45 | 0.259 | 1 x 8 | 0.772 | 50 | 0.872 | BK |
| TBA | 4 | 3 | 7 | 0.213 | 45 | 0.303 | 1 x 6 | 0.867 | 50 | 0.967 | BK |
| TBA | 2 | 3 | 7 | 0.268 | 45 | 0.358 | 1 x 6 | 0.986 | 50 | 1.086 | BK |
| TBA | 1 | 3 | 19 | 0.299 | 55 | 0.409 | 1 x 4 | 1.096 | 50 | 1.196 | BK |
| TBA | 1/0 | 3 | 19 | 0.336 | 55 | 0.446 | 1 x 4 | 1.176 | 50 | 1.276 | BK |
| TBA | 2/0 | 3 | 19 | 0.376 | 55 | 0.486 | 1 x 4 | 1.263 | 50 | 1.363 | BK |
| TBA | 3/0 | 3 | 19 | 0.423 | 55 | 0.533 | 1 x 4 | 1.364 | 50 | 1.464 | BK |
| TBA | 4/0 | 3 | 19 | 0.475 | 55 | 0.585 | 1 x 2 | 1.577 | 50 | 1.677 | BK |
| TBA | 250 | 3 | 37 | 0.52 | 65 | 0.65 | 1 x 2 | 1.717 | 50 | 1.817 | BK |
| TBA | 300 | 3 | 37 | 0.57 | 65 | 0.7 | 1 x 2 | 1.825 | 60 | 1.945 | BK |
| 671658 | 350 | 3 | 35 | 0.616 | 65 | 0.746 | 1 x 2 | 1.951 | 60 | 2.077 | BK |
| 561053 | 500 | 3 | 34 | 0.736 | 65 | 0.866 | 1 x 1 | 2.21 | 60 | 2.336 | BK |
| 646658 | 500 | 3 | 34 | 0.736 | 65 | 0.866 | 1 x 250 | 2.21 | 60 | 2.336 | BK |
| TBA | 600 | 3 | 61 | 0.813 | 80 | 0.973 | 1 x 1 | 2.415 | 60 | 2.535 | BK |
| 641478 | 750 | 3 | 58 | 0.908 | 80 | 1.068 | 1 x 1/0 | 2.651 | 75 | 2.808 | 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.


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## 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 | 3 | 5.6 | 297 | 1.071 | 1.334 | 0.052 | 40 | 45 |
| TBA | 6 | 3 | 6.1 | 472 | 0.674 | 0.84 | 0.051 | 50 | 55 |
| TBA | 4 | 3 | 6.8 | 751 | 0.424 | 0.528 | 0.048 | 65 | 75 |
| TBA | 2 | 3 | 7.6 | 1194 | 0.266 | 0.331 | 0.045 | 90 | 100 |
| TBA | 1 | 3 | 8.4 | 1506 | 0.211 | 0.263 | 0.046 | 100 | 115 |
| TBA | 1/0 | 3 | 8.9 | 1900 | 0.167 | 0.208 | 0.044 | 120 | 135 |
| TBA | 2/0 | 3 | 9.5 | 2395 | 0.133 | 0.166 | 0.043 | 135 | 150 |
| TBA | 3/0 | 3 | 10.2 | 3020 | 0.105 | 0.131 | 0.042 | 155 | 175 |
| TBA | 4/0 | 3 | 11.7 | 3808 | 0.084 | 0.105 | 0.041 | 180 | 205 |
| TBA | 250 | 3 | 12.7 | 4500 | 0.07 | 0.087 | 0.041 | 205 | 230 |
| TBA | 300 | 3 | 13.6 | 5400 | 0.059 | 0.074 | 0.041 | 230 | 260 |
| 671658 | 350 | 3 | 14.5 | 6300 | 0.051 | 0.064 | 0.04 | 250 | 280 |
| 561053 | 500 | 3 | 16.4 | 9000 | 0.036 | 0.045 | 0.039 | 310 | 350 |
| 646658 | 500 | 3 | 16.4 | 9000 | 0.036 | 0.045 | 0.039 | 310 | 350 |
| TBA | 600 | 3 | 17.7 | 10800 | 0.03 | 0.038 | 0.039 | 340 | 385 |
| 641478 | 750 | 3 | 19.7 | 13500 | 0.023 | 0.03 | 0.038 | 385 | 435 |

***** Ampacities based upon 2023 NEC Table 310.16. See NEC sections 310.15 and 110.14(C) for additional requirements.


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