# 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 3 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:** Three separate ground wires with a combined circular mil of 50% of the phase condutor. Class 4. B compact stranded 8000 Series aluminum per ASTM B800 and ASTM B836
- 4. Filler: Paper filler or 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 op- erating 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 condutors. 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 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-95-658 (NEMA WC70) Power Cables Rated 2000 Volts or Less for the Distribution of Electrical Energy





#### **SAMPLE PRINT LEGEND:**

{SQFTG} SOUTHWIRE {UL} 4/C 750 KCMIL COMPACT 8000 AL. --- TRIPLE E ALLOY AA8176 XHHW CDRS 600 VOLTS GW 3 X 2/0 AWG 3E AL TYPE MC EZ-JKT FOR CT USE SUN. RES. DIRECT BURIAL 90°C

#### **Table 1 – Weights and Measurements**

| Stock<br>Number | Cond.<br>Size | Cond.<br>Number | Strand<br>Count   | Diameter Over<br>Conductor | Insul.<br>Thickness | Ground       | Dia. Over<br>Armor | Jacket<br>Thickness | Approx.<br>OD | Aluminum<br>Weight | Approx.<br>Weight |
|-----------------|---------------|-----------------|-------------------|----------------------------|---------------------|--------------|--------------------|---------------------|---------------|--------------------|-------------------|
|                 | AWG/<br>Kcmil |                 | No. of<br>Strands | inch                       | mil                 | No. x<br>AWG | inch               | mil                 | inch          | lb/1000ft          | lb/1000ft         |
| 587658◊         | 750           | 4               | 58                | 0.908                      | 80                  | 3 x 2/0      | 2.896              | 80                  | 3.062         | 3688               | 4896              |

All dimensions are nominal and subject to normal manufacturing tolerances

 $\Diamond$  Cable marked with this symbol is a standard stock item

\* Strand count meets minimum number per ASTM

### **Table 2 – Electrical and Engineering Data**

| Stock<br>Number | Cond.<br>Size | Cond.<br>Number | Min<br>Bending<br>Radius | Max Pull<br>Tension | DC Resistance<br>@ 25°C | AC Resistance<br>@ 75°C | Capacitive<br>Reactance @<br>60Hz | Inductive<br>Reactance @<br>60Hz | Allowable<br>Ampacity At<br>75°C | Allowable<br>Ampacity At<br>90°C |
|-----------------|---------------|-----------------|--------------------------|---------------------|-------------------------|-------------------------|-----------------------------------|----------------------------------|----------------------------------|----------------------------------|
|                 | AWG/<br>Kcmil |                 | inch                     | lb                  | Ω/1000ft                | Ω/1000ft                | MΩ*1000ft                         | Ω/1000ft                         | Amp                              | Amp                              |
| 587658◊         | 750           | 4               | 21.4                     | 14400               | 0.024                   | 0.031                   | 0.011                             | 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.



