

# Armorlite® Type MC XHHW-2 PVC Jacketed Aluminum Conductor Feeder Cable 277/480V Colors

Aluminum XHHW-2 Insulated Singles with 8000 series Triple E™ Aluminum Alloy. Bare AlumaFlex™ Aluminum Alloy Grounding Conductor. UL Listed. 600 Volts. Rated VW-1. Lightweight Aluminum Interlocked Armor. Overall PVC Jacket. Sunlight Resistant.

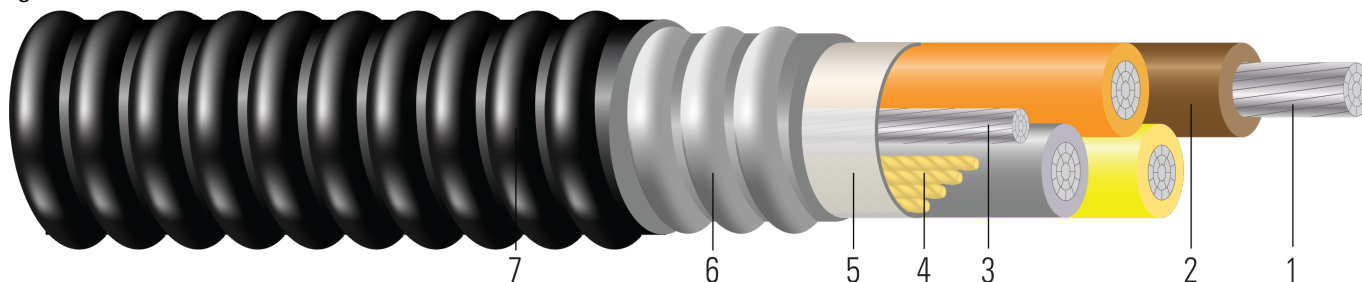


Image not to scale. See Table 1 for dimensions.

## CONSTRUCTION:

1. **Conductor:** Class B compact stranded 8000 Series aluminum per ASTM B800 and ASTM B801
2. **Insulation:** All phases are insulated with Cross Linked Polyethylene XLPE Type XHHW-2
3. **Ground:** Bare aluminum ground
4. **Filler:** Fillers as needed
5. **Binder:** Mylar tape
6. **Armor:** Aluminum Interlocked Armor
7. **Jacket:** Polyvinyl Chloride (PVC) sunlight resistant, and corrosion resistant

## APPLICATIONS AND FEATURES:

Southwire Armorlite® Type MC Feeder cable is suitable for use as follows:

- Feeder and service power distribution in commercial, industrial, institutional, and multi- residential buildings.
- Where exposed to cinder fills, strong chlorides, caustic alkalis, or vapors of chlorine or of hydrochloric acids.
- Fished or embedded in plaster.
- Concealed or exposed installations.
- Suitable for Wet Location per NEC 330.10(A)(11)
- Places of Assembly per NEC 518.4 and theaters per NEC 520.5.
- Installation in cable tray and approved raceways, or as aerial cable on a messenger.
- Under raised floors for information technology equipment conductors and cables per NEC 645.5(D) & 645.5(E)
- Class I Div. 2, Class II Div 2, & Class III Div. 1 Hazardous Locations.
- Type XHHW-2 rated 90°C Dry/Wet

Southwire Armorlite® Type MC Feeder Cable - meets or exceeds the following requirements:

- UL Online Product Guide Info - Metal-Clad Cable (PJAZ) ( [www.ul.com](http://www.ul.com) )
- Federal Specification A-A59544 (formerly J-C-30B)
- NFPA 70 (National Electrical Code), Article 330
- Listed for use in UL 1, 2 and 3 Hour Through Penetration Firestop Systems

Color Code

- 3/C: Brown, Orange, Yellow



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- 4/C: Brown, Orange, Yellow, Gray

### SPECIFICATIONS:

- ASTM B800 8000 Series Aluminum Alloy Wire
- ASTM B801 Concentric-Lay-Stranded Conductors of 8000 Series Aluminum Alloy
- UL 44 Thermoset-Insulated Wires and Cables
- UL 1569 Metal-Clad Cables
- UL 1479 Standard for Safety Fire Tests of Penetration Firestops
- UL 1685 FT4 Vertical-Tray Fire Propagation and Smoke Release Test
- IEEE 1202 FT4 Flame Test (70,000) BTU/hr Vertical Tray Test
- Buy American: Compliant with Buy American Requirements, found in 49 U.S.C. § 5323(j); specify "Made in the USA Only!" when ordering to ensure your project receives American made products.

### SAMPLE PRINT LEGEND:

{SQFTG} SOUTHWIRE {UL} 4/C XX AWG COMPACT AL. --- {ALUMAFLEX}® AA8176 XHHW-2 CDRS GW 1 X X AWG AL TYPE MC FOR USE IN CABLE TRAYS 600V/1000V

**Table 1 – Weights and Measurements**

| Stock Number | Cond. Size    | Conductor Number | Color           | Diameter Over Conductor | Conductor Stranding | Insulation Thickness | Ground Size   | Diameter Over Armor | Jacket Thickness | Approx. OD | Overall Weight |
|--------------|---------------|------------------|-----------------|-------------------------|---------------------|----------------------|---------------|---------------------|------------------|------------|----------------|
|              | AWG/<br>Kcmil |                  |                 | inch                    |                     | mils                 | No. x<br>AWG  | inch                | mil              | inch       | lbs/1000ft     |
| 678188◇      | 1             | 4                | BN/OE/<br>YW/GY | 0.298                   | 8                   | 55                   | 1x4           | 1.338               | 50               | 1.438      | 785            |
| 678191◇      | 1/0           | 4                | BN/OE/<br>YW/GY | 0.336                   | 10                  | 55                   | 1x4           | 1.309               | 50               | 1.409      | 871            |
| 678178◇      | 3/0           | 4                | BN/OE/<br>YW/GY | 0.422                   | 16                  | 55                   | 1x4           | 1.619               | 65               | 1.751      | 1310           |
| 678195◇      | 250           | 4                | BN/OE/<br>YW/GY | 0.520                   | 22                  | 65                   | 1x1           | 1.887               | 65               | 2.019      | 1791           |
| 678198◇      | 300           | 4                | BN/OE/<br>YW/GY | 0.569                   | 35                  | 65                   | 1x1           | 2.007               | 65               | 2.139      | 2048           |
| 674654◇      | 350           | 3                | BN/OE/<br>YW    | 0.615                   | 35                  | 65                   | 1x2/0         | 1.938               | 65               | 2.070      | 1884           |
| 678202◇      | 350           | 4                | BN/OE/<br>YW/GY | 0.615                   | 35                  | 65                   | 1x1/0         | 2.118               | 65               | 2.250      | 2312           |
| 677672◇      | 500           | 3                | BN/OE/<br>YW    | 0.735                   | 35                  | 65                   | 1x3/0<br>GG C | 2.480               | 80               | 2.646      | 3078           |
| 665704◇      | 600           | 3                | BN/OE/<br>YW    | 0.812                   | 41                  | 80                   | 1x350<br>GG   | 2.616               | 75               | 2.773      | 3359           |
| 677676◇      | 600           | 4                | BN/OE/<br>YW/GY | 0.812                   | 41                  | 80                   | 1x600<br>GG C | 3.088               | 85               | 3.266      | 5717           |
| 677483◇      | 750           | 4                | BN/OE/<br>YW/GY | 0.908                   | 58                  | 80                   | 1x300         | 2.978               | 80               | 3.144      | 4730           |

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

\* Note: GG = Green insulated ground

\* Note: GG Cu = Green insulated ground copper



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Table 2 – Electrical and Engineering Data

| Cond. Size | Conductor Number | Min. Bend Radius | Max Pull Tension | DC Resistance at 25°C | AC Resistance at 75°C | Inductive Reactance @ 60Hz | Allowable Ampacity Raceway 60°C | Allowable Ampacity Raceway 75°C | Allowable Ampacity Raceway 90°C |
|------------|------------------|------------------|------------------|-----------------------|-----------------------|----------------------------|---------------------------------|---------------------------------|---------------------------------|
| AWG/Kcmil  |                  | Inches           | Lbs              | Ω/1000ft              | Ω/1000ft              | Ω/1000ft                   | Amp                             | Amp                             | Amp                             |
| 1          | 4                | 10.1             | 1606             | 0.211                 | 0.254                 | 0.046                      | 68                              | 80                              | 92                              |
| 1/0        | 4                | 9.9              | 2027             | 0.168                 | 0.201                 | 0.044                      | 80                              | 96                              | 108                             |
| 3/0        | 4                | 12.3             | 3221             | 0.105                 | 0.126                 | 0.042                      | 104                             | 124                             | 140                             |
| 250        | 4                | 14.1             | 4800             | 0.071                 | 0.086                 | 0.041                      | 136                             | 164                             | 184                             |
| 300        | 4                | 15.0             | 5760             | 0.059                 | 0.071                 | 0.041                      | 156                             | 184                             | 208                             |
| 350        | 3                | 14.5             | 6300             | 0.050                 | 0.062                 | 0.040                      | 210                             | 250                             | 280                             |
| 350        | 4                | 15.8             | 6720             | 0.050                 | 0.062                 | 0.040                      | 168                             | 200                             | 224                             |
| 500        | 3                | 18.5             | 9000             | 0.035                 | 0.044                 | 0.039                      | 260                             | 310                             | 350                             |
| 600        | 3                | 19.4             | 10800            | 0.029                 | 0.037                 | 0.039                      | 285                             | 340                             | 385                             |
| 600        | 4                | 22.9             | 11520            | 0.029                 | 0.037                 | 0.039                      | 228                             | 272                             | 308                             |
| 750        | 4                | 22.0             | 14400            | 0.024                 | 0.031                 | 0.038                      | 256                             | 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.

