# CU 600/1000V XLPE Insulation 50% Ground AIA PVC Jacket. XHHW-2

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

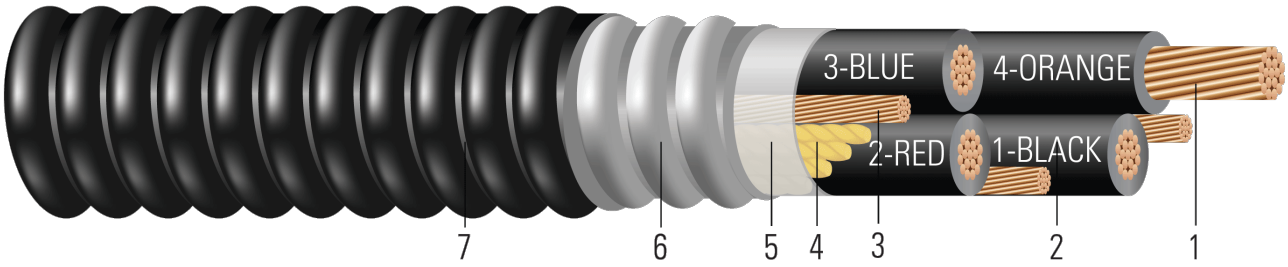


Image not to scale. See Table 1 for dimensions.

## CONSTRUCTION:

1. **Conductor:** Class B compressed stranded bare copper per ASTM B3 and ASTM B8
2. **Insulation:** Cross Linked Polyethylene (XLPE) Type XHHW-2
3. **Grounding Conductor:** Class B compressed stranded bare copper per ASTM B3 and ASTM B8
4. **Filler:** Paper 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 B3 Soft or Annealed Copper Wire
- ASTM B8 Concentric-Lay-Stranded Copper 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} 4/C (XXX KCMIL) XXXmm2 CU 65 MILS XLP 600 VOLTS GW 3 X 1 AWG CU TYPE MC FOR CT USE SUN. RES. DIRECT BURIAL 90{D}C USA -- {NOM}-ANCE Tipo MC XHHW-2 CT

## Table 1 – Weights and Measurements

| Stock Number | Cond. Size | Strand Count | Diameter Over Conductor | Insul. Thickness | Dia. Over Insulation | Ground | Dia. Over Armor | Jacket Thickness | Approx. OD | Copper Weight | Approx. Weight |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | AWG/ Kcmil | No. of Strands | inch | mil | inch | No. x AWG | inch | mil | inch | lb/1000ft | lb/1000ft |
| 665399 | 1/0 | 19 | 0.360 | 55 | 0.482 | 3 x 6 | 1.382 | 50 | 1.488 | 1563 | 2053 |
| TBA | 2/0 | 19 | 0.405 | 55 | 0.515 | 3 x 6 | 1.568 | 60 | 1.688 | 1755 | 2310 |
| TBA | 3/0 | 19 | 0.456 | 55 | 0.566 | 3 x 4 | 1.691 | 60 | 1.811 | 2245 | 2884 |
| 665402 | 4/0 | 19 | 0.498 | 55 | 0.620 | 3 x 4 | 1.815 | 60 | 1.941 | 3030 | 3764 |
| 665410 | 250 | 37 | 0.542 | 65 | 0.682 | 3 x 4 | 1.964 | 60 | 2.090 | 3509 | 4333 |
| TBA | 350 | 37 | 0.661 | 65 | 0.791 | 3 x 2 | 2.236 | 60 | 2.356 | 4556 | 5482 |
| 952374 | 500 | 37 | 0.789 | 65 | 0.919 | 3 x 1 | 2.504 | 75 | 2.654 | 7020 | 8269 |
| TBA | 600 | 61 | 0.865 | 80 | 1.025 | 3 x 1/0 | 2.802 | 75 | 2.952 | 7723 | 9091 |
| TBA | 750 | 61 | 0.968 | 80 | 1.128 | 3 x 2/0 | 3.051 | 85 | 3.221 | 9656 | 11224 |

All dimensions are nominal and subject to normal manufacturing tolerances
◊ Cable marked with this symbol is a standard stock item

## Table 2 – Electrical and Engineering Data

| Stock Number | Cond. Size | Min Bending Radius | Max Pull Tension | DC Resistance @ 25°C | AC Resistance @ 75°C | Inductive Reactance @ 60Hz | Allowable Ampacity At 60° C | Allowable Ampacity At 75° C | Allowable Ampacity At 90° C |
|---|---|---|---|---|---|---|---|---|---|
| | AWG/ Kcmil | inch | lb | Ω/1000ft | Ω/1000ft | Ω/1000ft | Amp | Amp | Amp |
| 665399 | 1/0 | 10.4 | 2703 | 0.102 | 0.133 | 0.044 | 100 | 120 | 136 |
| TBA | 2/0 | 11.8 | 3407 | 0.081 | 0.097 | 0.043 | 116 | 140 | 156 |
| TBA | 3/0 | 12.6 | 4296 | 0.064 | 0.078 | 0.042 | 132 | 160 | 180 |
| 665402 | 4/0 | 13.6 | 5417 | 0.051 | 0.066 | 0.041 | 156 | 184 | 208 |
| 665410 | 250 | 14.6 | 6400 | 0.043 | 0.056 | 0.041 | 172 | 204 | 232 |
| TBA | 350 | 16.4 | 8960 | 0.031 | 0.039 | 0.040 | 208 | 248 | 280 |
| 952374 | 500 | 18.5 | 10000 | 0.022 | 0.029 | 0.039 | 256 | 304 | 344 |
| TBA | 600 | 20.6 | 10000 | 0.018 | 0.025 | 0.039 | 280 | 336 | 380 |
| TBA | 750 | 22.5 | 10000 | 0.014 | 0.022 | 0.038 | 320 | 380 | 428 |

***** 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.