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

Type MC Power Cable 600Volt Four Conductor Copper, Cross Linked Polyethylene (XLPE) insulation XHHW-2 Aluminum Interlocked Armor (AIA), Polyvinyl Chloride (PVC) Jacket with 1 Bare CU Ground. Silicone Free.

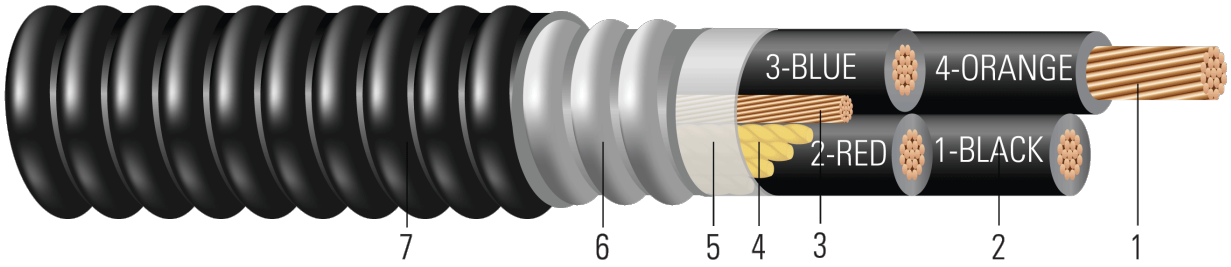


Image not to scale. See Table 1 for dimensions.

## 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 (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 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, 4-ORANGE)
- 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 MASTER-DESIGN {UL} 4/C (XX AWG) XX.Xmm2 CU XX MILS XLP 600 VOLTS GW 1 X X 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 | Cond. Number | 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 |
| TBA | 8 | 4 | 7 | 0.141 | 45 | 0.231 | 1 x 10 | 0.781 | 50 | 0.881 | 237 | 462 |
| 574460 | 6 | 4 | 7 | 0.177 | 45 | 0.267 | 1 x 8 | 0.865 | 50 | 0.965 | 378 | 647 |
| TBA | 4 | 4 | 7 | 0.225 | 45 | 0.315 | 1 x 8 | 0.984 | 50 | 1.084 | 571 | 873 |
| 580730 | 2 | 4 | 7 | 0.282 | 45 | 0.372 | 1 x 6 | 1.113 | 50 | 1.213 | 909 | 1274 |
| TBA | 1 | 4 | 19 | 0.322 | 55 | 0.432 | 1 x 6 | 1.267 | 50 | 1.367 | 1123 | 1553 |
| 890229 | 1/0 | 4 | 19 | 0.361 | 55 | 0.471 | 1 x 6 | 1.352 | 50 | 1.452 | 1399 | 1902 |
| TBA | 2/0 | 4 | 19 | 0.405 | 55 | 0.515 | 1 x 6 | 1.568 | 60 | 1.688 | 1739 | 2294 |
| TBA | 3/0 | 4 | 19 | 0.456 | 55 | 0.566 | 1 x 4 | 1.691 | 60 | 1.811 | 2221 | 2860 |
| 562605 | 4/0 | 4 | 19 | 0.512 | 55 | 0.622 | 1 x 4 | 1.785 | 60 | 1.905 | 2769 | 3525 |
| 557959 | 250 | 4 | 37 | 0.558 | 65 | 0.688 | 1 x 4 | 1.940 | 60 | 2.060 | 3248 | 4144 |
| 551452 | 350 | 4 | 37 | 0.661 | 65 | 0.791 | 1 x 3 | 2.179 | 60 | 2.299 | 4530 | 5699 |
| TBA | 350 | 4 | 37 | 0.661 | 65 | 0.791 | 1 x 2/0 | 2.236 | 60 | 2.356 | 4526 | 5452 |
| 605410 | 500 | 4 | 37 | 0.789 | 65 | 0.919 | 1 x 2 | 2.484 | 75 | 2.634 | 6443 | 7839 |
| 563407 | 600 | 4 | 61 | 0.865 | 80 | 1.025 | 1 x 2 | 2.798 | 75 | 2.948 | 7691 | 9279 |
| 672989 | 600 | 4 | 61 | 0.865 | 80 | 1.025 | 1 x 4/0 | 2.798 | 80 | 2.964 | 8145 | 9680 |
| TBA | 750 | 4 | 61 | 0.968 | 80 | 1.128 | 1 x 1 | 3.051 | 85 | 3.221 | 9607 | 11175 |

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 | Cond. Number | 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 |
| TBA | 8 | 4 | 6.1 | 423 | 0.653 | 0.786 | 0.052 | 32 | 40 | 44 |
| 574460 | 6 | 4 | 6.7 | 672 | 0.411 | 0.495 | 0.051 | 44 | 52 | 60 |
| TBA | 4 | 4 | 7.5 | 1069 | 0.258 | 0.310 | 0.048 | 56 | 68 | 76 |
| 580730 | 2 | 4 | 8.4 | 1699 | 0.162 | 0.195 | 0.045 | 76 | 92 | 104 |
| TBA | 1 | 4 | 9.5 | 2142 | 0.128 | 0.154 | 0.046 | 88 | 104 | 116 |
| 890229 | 1/0 | 4 | 10.1 | 2703 | 0.102 | 0.122 | 0.044 | 100 | 120 | 136 |
| TBA | 2/0 | 4 | 11.8 | 3407 | 0.081 | 0.097 | 0.043 | 116 | 140 | 156 |
| TBA | 3/0 | 4 | 12.6 | 4296 | 0.064 | 0.078 | 0.042 | 132 | 160 | 180 |
| 562605 | 4/0 | 4 | 13.3 | 5417 | 0.051 | 0.062 | 0.041 | 156 | 184 | 208 |
| 557959 | 250 | 4 | 14.4 | 6400 | 0.043 | 0.053 | 0.041 | 172 | 204 | 232 |
| 551452 | 350 | 4 | 16.0 | 8960 | 0.031 | 0.039 | 0.040 | 208 | 248 | 280 |
| TBA | 350 | 4 | 16.4 | 8960 | 0.031 | 0.039 | 0.040 | 208 | 248 | 280 |
| 605410 | 500 | 4 | 18.4 | 10000 | 0.022 | 0.029 | 0.039 | 256 | 304 | 344 |
| 563407 | 600 | 4 | 20.6 | 10000 | 0.018 | 0.025 | 0.039 | 280 | 336 | 380 |
| 672989 | 600 | 4 | 20.7 | 10000 | 0.018 | 0.025 | 0.039 | 280 | 336 | 380 |
| TBA | 750 | 4 | 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.