

3/C CU 600V XLPE XHHW-2 AIA PVC Power Cable With Ground. Silicone Free.

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

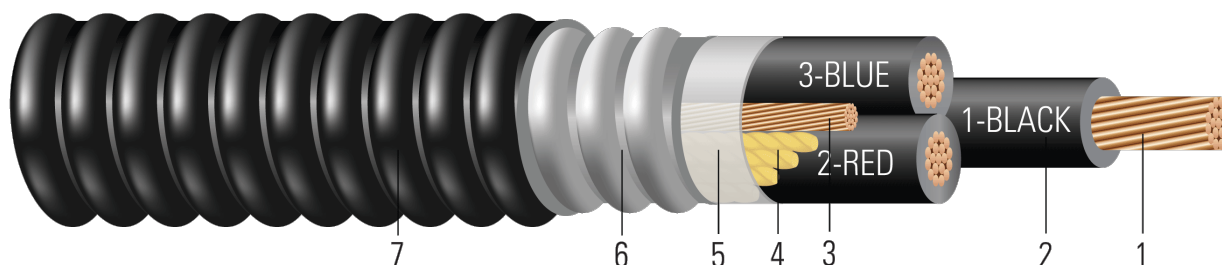


Image not to scale. See Table 1 for dimensions.

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 Standard Specification for Soft or Annealed Copper Wire
- ASTM B8 Concentric-Lay-Stranded Copper Conductors
- UL 44 Thermoset-Insulated Wires and Cables
- UL 1309 Marine Shipboard Cable
- UL 1569 Metal-Clad Cables
- UL 1685 FT4 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-58-679 Control Cable Conductor Identification Method 4
- ICEA S-95-658 (NEMA WC70) Power Cables Rated 2000 Volts or Less for the Distribution of Electrical Energy
- IEEE 1202 FT4 Vertical Tray Flame Test (70,000 Btu/hr) and ICEA T-29-520 - (210,000 Btu/hr)
- ABS Listed as CWC MC



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SAMPLE PRINT LEGEND:

{SQFTG_DUAL} SOUTHWIRE MASTER-DESIGN {UL} 3/C (1 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 FT4

Table 1 – Weights and Measurements

| Stock Number | Cond. Size | Diameter Over Conductor | Insul. Thickness | Diameter Over Insulation | Ground | Diameter Over Armor | Jacket Thickness | Approx. OD | Copper Weight | Approx. Weight |
|--------------|------------|-------------------------|------------------|--------------------------|-----------|---------------------|------------------|------------|---------------|----------------|
| | AWG/ Kcmil | inch | mil | inch | No. x AWG | inch | mil | inch | lb/1000ft | lb/1000ft |
| 606939 | 8 | 0.139 | 45 | 0.229 | 1 x 10 | 0.705 | 50 | 0.805 | 187 | 404 |
| 606947 | 6 | 0.174 | 45 | 0.264 | 1 x 8 | 0.781 | 50 | 0.881 | 297 | 547 |
| 606954◊ | 4 | 0.221 | 45 | 0.311 | 1 x 8 | 0.881 | 50 | 0.981 | 442 | 736 |
| 671892 | 3 | 0.247 | 45 | 0.337 | 1 x 6 | 0.946 | 50 | 1.046 | 574 | 888 |
| 560466◊ | 2 | 0.277 | 45 | 0.367 | 1 x 6 | 1.003 | 50 | 1.103 | 703 | 1054 |
| 550801 | 1 | 0.321 | 55 | 0.431 | 1 x 6 | 1.141 | 50 | 1.251 | 865 | 1260 |
| 560474◊ | 1/0 | 0.360 | 55 | 0.470 | 1 x 6 | 1.225 | 50 | 1.325 | 1069 | 1534 |
| 560482◊ | 2/0 | 0.404 | 55 | 0.514 | 1 x 6 | 1.320 | 50 | 1.420 | 1327 | 1841 |
| 890339◊ | 3/0 | 0.454 | 55 | 0.564 | 1 x 4 | 1.428 | 50 | 1.528 | 1700 | 2272 |
| 383679◊ | 4/0 | 0.510 | 55 | 0.620 | 1 x 4 | 1.549 | 60 | 1.669 | 2110 | 2779 |
| 601377 | 250 | 0.558 | 65 | 0.688 | 1 x 4 | 1.696 | 60 | 1.816 | 2469 | 3240 |
| 383646◊ | 350 | 0.661 | 65 | 0.791 | 1 x 3 | 2.019 | 60 | 2.139 | 3440 | 4442 |
| 380618◊ | 500 | 0.789 | 65 | 0.919 | 1 x 2 | 2.295 | 75 | 2.445 | 4885 | 6144 |
| 582274 | 500 | 0.789 | 65 | 0.919 | 1 x 4/0 | 2.295 | 75 | 2.527 | 5338 | 6634 |
| 890391 | 600 | 0.866 | 80 | 1.026 | 1 x 4/0 | 2.526 | 75 | 2.676 | 6222 | 7573 |
| 890405 | 750 | 0.968 | 80 | 1.128 | 1 x 1 | 2.746 | 75 | 2.896 | 7278 | 8933 |

All dimensions are nominal and subject to normal manufacturing tolerances

◊ Cable marked with this symbol is a standard stock item

† Ampacities are based on Table 310.16 of the NEC 2020 Edition. Ampacities of insulated conductors rated up to and including 2000 Volts with not more than three current-carrying conductors in raceway, cable or direct buried based on ambient temperature of 30°C (86°F). Ampacities have been adjusted for more than three current-carrying conductors based on Table 310.15(C) 1.



Table 2 – Electrical and Engineering Data

| Stock Number | Cond. Size | Min Bending Radius | Max Pull Tension | DC Resistance @ 25°C | AC Resistance @ 90°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 |
| 606939 | 8 | 5.6 | 396 | 0.652 | 0.815 | 0.033 | 40 | 50 | 55 |
| 606947 | 6 | 6.2 | 630 | 0.411 | 0.514 | 0.031 | 55 | 65 | 75 |
| 606954◇ | 4 | 6.9 | 1002 | 0.258 | 0.323 | 0.030 | 70 | 85 | 95 |
| 671892 | 3 | 8.1 | 1002 | 0.205 | 0.256 | 0.029 | 85 | 100 | 115 |
| 560466◇ | 2 | 7.7 | 1593 | 0.162 | 0.203 | 0.028 | 95 | 115 | 130 |
| 550801 | 1 | 8.7 | 2009 | 0.129 | 0.162 | 0.028 | 110 | 130 | 145 |
| 560474◇ | 1/0 | 9.3 | 2534 | 0.102 | 0.128 | 0.028 | 125 | 150 | 170 |
| 560482◇ | 2/0 | 9.9 | 3194 | 0.081 | 0.102 | 0.027 | 145 | 175 | 195 |
| 890339◇ | 3/0 | 10.7 | 4027 | 0.064 | 0.081 | 0.027 | 165 | 200 | 225 |
| 383679◇ | 4/0 | 11.7 | 5078 | 0.051 | 0.064 | 0.026 | 195 | 230 | 260 |
| 601377 | 250 | 12.7 | 6000 | 0.043 | 0.055 | 0.027 | 215 | 255 | 290 |
| 383646◇ | 350 | 15.0 | 8400 | 0.031 | 0.040 | 0.026 | 260 | 310 | 350 |
| 380618◇ | 500 | 17.1 | 12000 | 0.022 | 0.029 | 0.025 | 320 | 380 | 430 |
| 582274 | 500 | 17.1 | 12000 | 0.022 | 0.029 | 0.025 | 320 | 380 | 430 |
| 890391 | 600 | 18.7 | 14400 | 0.018 | 0.024 | 0.026 | 350 | 420 | 475 |
| 890405 | 750 | 20.3 | 18000 | 0.014 | 0.020 | 0.025 | 400 | 475 | 535 |

† Ampacities are based on Table 310.16 of the NEC 2020 Edition. Ampacities of insulated conductors rated up to and including 2000 Volts with not more than three current-carrying conductors in raceway, cable or direct buried based on ambient temperature of 30°C (86°F). Ampacities have been adjusted for more than three current-carrying conductors based on Table 310.15(C) 1.

