



CU 600V XLPE Insulation AIA PVC Jacket XHHW-2 CT Rated - Sunlight Resistant - For Direct Burial - Silicone Free

Type MC Control Cable 600Volt Copper Conductors, Cross Linked Polyethylene (XLPE) Insulation XHHW-2 Aluminum Interlocked Armor (AIA), Polyvinyl Chloride (PVC) Jacket.



Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

1. **Conductor:** 7 strands class B compressed tinned copper per ASTM B33 and ASTM B8
2. **Insulation:** Cross Linked Polyethylene (XLPE) XHHW-2, 30 Mil's thick for all cable sizes
3. **Grounding Conductor:** Class B compressed stranded bare copper
4. **Filler:** Polypropylene filler on cables with 5 or less conductors
5. **Binder:** Polyester flat thread binder tape applied for cables with more than 5 conductors
6. **Armor:** Aluminum Interlocked Armor (AIA)
7. **Overall Jacket:** Polyvinyl Chloride (PVC) Jacket

APPLICATIONS AND FEATURES:

Southwire's 600 Volt Type MC control 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.

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 1 Table 2
- ICEA S-73-532 Standard for Control, Thermocouple Extension and Instrumentation Cables
- 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} X/C (XX AWG) X.XXmm² CU XX MILS XLP 600 VOLTS GW 1 X XX AWG CU TYPE MC FOR CT USE SUN. RES. DIRECT BURIAL 90C USA -- {NOM}-ANCE Tipo MC XHHW-2 CT





Table 1 – Physical and Electrical Data

| Stock Number | Cond. Size | Cond. Number | Cond. Strands | Insul. Thickness | Ground | Diameter Over Armor | Jacket Thickness | Approx. OD | Copper Weight | Approx. Weight | DC Resistance @ 25°C | AC Resistance @ 75°C | Inductive Reactance | Min Bending Radius | Allowable Ampacity 75°C | Allowable Ampacity 90°C |
|--------------|------------|--------------|---------------|------------------|-----------|---------------------|------------------|------------|---------------|----------------|----------------------|----------------------|---------------------|--------------------|-------------------------|-------------------------|
| | AWG | No. | strands | mil | No. x AWG | inch | mil | inch | lb / 1000ft | lb / 1000ft | Ω /1000ft | Ω /1000ft | Ω/1000ft | inch | Amp | Amp |
| 12 AWG | | | | | | | | | | | | | | | | |
| 555149 | 12 | 3 | 7 | 30 | 1 x 12 | 0.553 | 50 | 0.653 | 81 | 227 | 1.662 | 2.002 | 0.054 | 4.6 | 25 | 30 |

All dimensions are nominal and subject to normal manufacturing tolerances

◊ Cable marked with this symbol is a standard stock item

+ Ampacities based upon 2023 NEC Table 310.16 and do not take into account the overcurrent protection limitations in NEC 240.4(D) of 15 Amps for 14 AWG CU, 20 Amps for 12 AWG CU, and 30 Amps for 10 AWG CU (independent of the conductor temperature rating and stranding if size is present in table). Also, see NEC sections 310.15 and 110.14(C) for additional requirements.

+ Ampacities have been adjusted for more than Three Current-Carrying Conductors.

* Green Ground Conductor.

