



## Copper Riser MC™ Cable Type MC Cu Feeder THHN/THWN-2 Conductors

Copper THHN/THWN-2 Insulated Singles. Bare or Insulated Copper Grounding Conductor. UL Listed. 600 Volts. Binder Jacket for Continuous Conductor Support. Lightweight Aluminum Interlocked Armor.

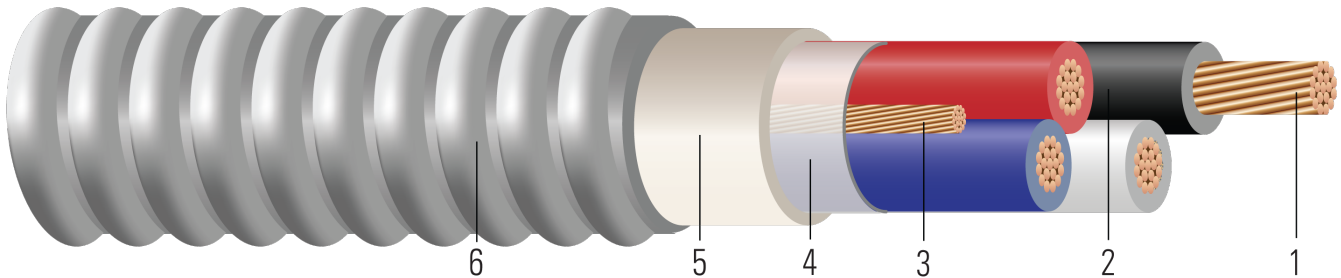


Image not to scale. See Table 1 for dimensions.

### CONSTRUCTION:

1. **Conductor:** Class B compressed soft drawn bare copper per ASTM B3 and B8 or combination unilay soft drawn bare copper per ASTM B3 and B787
2. **Insulation:** All phases are insulated with Polyvinyl Chloride with Nylon Sheath Type THHN/THWN-2
3. **Ground:** Bare or insulated copper ground
4. **Binder:** Polypropylene binder tape
5. **Polymeric Binder:** Polymeric binder sheath under armor for continuous conductor support
6. **Aarmor:** Aluminum Interlocked Armor

### APPLICATIONS AND FEATURES:

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

- Riser cable, vertical applications
- Branch, feeder and service power distribution in commercial, industrial, institutional, and multi-residential buildings.
- Fished or embedded in plaster.
- Concealed or exposed installations.
- Environmental air-handling spaces per NEC 300.22 (C).
- 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.
- Conductors are Type THHN/THWN-2 rated 90°C Wet and Dry. Unjacketed MC cables are not rated for wet locations.

**Southwire Armorlite® Type MC Riser 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

### SPECIFICATIONS:

- ASTM B3 Soft or Annealed Copper Wire
- ASTM B8 Concentric-Lay-Stranded Copper Conductors





- ASTM B787 19 Wire Combination Unilay-Stranded Copper Conductors
- UL 83 Thermoplastic 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
- ICEA S-95-658 (NEMA WC70) Power Cables Rated 2000 Volts or Less for the Distribution of Electrical Energy
- IEEE 1202 FT4 Flame Test (70,000) BTU/hr Vertical Tray Test
- RoHS-2 (European Directive 2011/65/EU)
- 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:**

SOUTHWIRE {UL} X/C XX AWG GW 1 X XX AWG CU TYPE MC THHN CDRS 600V {SEQUENTIAL FOOTAGE MARKS} SEQ FEET

**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 | Copper Weight | Overall Weight |
|--------------|------------|------------------|-------------------------------|-------------------------|---------------------|----------------------|-------------|---------------------|------------------|------------|---------------|----------------|
|              | AWG/Kcmil  |                  |                               | inch                    |                     | mils                 | No. x AWG   | inch                | mil              | inch       | lbs/1000ft    | lbs/1000ft     |
| 646552       | 2/0        | 4                | BN,OE,YW,GY,GN                | 0.364                   | 19                  | 60                   | 1x3         | 1.924               | 50               | 1.924      | 1824          | 2664           |
| 640551       | 3/0        | 4                | BN,OE,YW,GY,GN                | 0.409                   | 19                  | 60                   | 1x2         | 2.086               | 60               | 2.086      | 2299          | 3234           |
| 587704◇      | 3/0        | 3                | BK,RD,WE                      | 0.456                   | 19                  | 60                   | 1x1/0       | 1.944               |                  |            | 1899          | 2647           |
| 674323       | 4/0        | 4                | BN,OE,YW,GY,GN                | 0.46                    | 19                  | 60                   | 1x2         | 2.113               | 60               | 2.113      | 2846          | 3791           |
| 598048       | 400        | 4                | BN,OE,YW,GY,GN                | 0.659                   | 37                  | 70                   | 1x4/0       | 2.841               | 50               | 2.841      | 5649          | 7003           |
| 583932◇      | 4          | 4                | BN,OE,YW,GY,GN                | 0.226                   | 19                  | 50                   | 1x8 GG      | 1.326               |                  |            | 572           | 1008           |
| 587705◇      | 1          | 4                | BK,RD,BE,WE                   | 0.322                   | 19                  | 60                   | 1x3         | 1.818               |                  |            | 1208          | 1932           |
| 640554       | 1          | 4                | BN,OE,YW,GY,GN                | 0.322                   | 19                  | 60                   | 1x6 GG      | 1.658               |                  |            | 1126          | 1782           |
| 640558       | 1/0        | 4                | BK,RD,BE,WE                   | 0.360                   | 19                  | 60                   | 1x6 GG      | 1.748               |                  |            | 1399          | 2103           |
| 646808◇      | 2/0        | 4                | BN,OE,YW,GY                   | 0.406                   | 19                  | 60                   | 1x3         | 1.863               |                  |            | 1824          | 2579           |
| 678001◇      | 3/0        | 4                | 1,2,3,4                       | 0.454                   | 19                  | 60                   | 1x4         | 2.101               |                  |            | 2223          | 3081           |
| 672532       | 3/0        | 4                | BK,RD,BE,WE                   | 0.456                   | 19                  | 60                   | 1x4         | 1.953               |                  |            | 2223          | 3035           |
| 587710◇      | 4/0        | 4                | BK,RD,BE,WE                   | 0.498                   | 19                  | 60                   | 1x4/0       | 2.318               |                  |            | 3299          | 4236           |
| 583433◇      | 4/0        | 4                | 1-BK,2-RD,3-BE,WE             | 0.498                   | 19                  | 60                   | 1x4         | 2.220               |                  |            | 2769          | 3713           |
| 677978◇      | 250        | 4                | 1,2,3,4                       | 0.542                   | 37                  | 70                   | 1x1/0       | 2.268               |                  |            | 3447          | 4416           |
| 674326◇      | 350        | 4                | BN,OE,YW,GY,GN                | 0.641                   | 37                  | 70                   | 1x1 GG      | 2.518               |                  |            | 4627          | 5781           |
| 679715◇      | 400        | 4                | 1-ONE,2-TWO,3-THREE,4-FOUR,GN | 0.685                   | 37                  | 70                   | 1x4/0 GG    | 2.743               |                  |            | 5649          | 6985           |
| 586733◇      | 600        | 4                | BK,RD,BE,WE                   | 0.840                   | 61                  | 80                   | 1x2         | 2.991               |                  |            | 7691          | 9193           |

All dimensions are nominal and subject to normal manufacturing tolerances

◇ Cable marked with this symbol is a standard stock item

**Note:** Conductor number = number of phase conductors. Does not include ground

TBA stock codes are estimations only and actual product may vary. Please wait until a stock code is assigned to purchase connectors and/or fittings.





**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 75°C | Allowable Ampacity Raceway 90°C |
|------------|------------------|------------------|------------------|-----------------------|-----------------------|----------------------------|---------------------------------|---------------------------------|
| AWG/Kcmil  |                  | Inches           | Lbs              | Ω/1000ft              | Ω/1000ft              | Ω/1000ft                   | Amp                             | Amp                             |
| 2/0        | 4                | 13.4             | 3407             | 0.081                 | 0.097                 | 0.043                      | 140                             | 156                             |
| 3/0        | 4                | 14.6             | 4295             | 0.064                 | 0.078                 | 0.042                      | 160                             | 180                             |
| 3/0        | 3                | 13.6             | 4027             | 0.064                 | 0.078                 | 0.042                      | 200                             | 225                             |
| 4/0        | 4                | 14.7             | 5416             | 0.051                 | 0.062                 | 0.041                      | 184                             | 208                             |
| 400        | 4                | 19.8             | 12800            | 0.044                 | 0.054                 | 0.04                       | 268                             | 304                             |
| 4          | 4                | 9.3              | 1068             | 0.258                 | 0.310                 | 0.048                      | 68                              | 76                              |
| 1          | 4                | 12.7             | 2142             | 0.128                 | 0.154                 | 0.046                      | 104                             | 116                             |
| 1          | 4                | 11.6             | 2142             | 0.128                 | 0.154                 | 0.046                      | 104                             | 116                             |
| 1/0        | 4                | 12.2             | 2703             | 0.102                 | 0.133                 | 0.044                      | 120                             | 136                             |
| 2/0        | 4                | 13.0             | 3407             | 0.081                 | 0.097                 | 0.043                      | 140                             | 156                             |
| 3/0        | 4                | 14.7             | 4295             | 0.064                 | 0.078                 | 0.042                      | 160                             | 180                             |
| 3/0        | 4                | 13.7             | 4295             | 0.064                 | 0.078                 | 0.042                      | 160                             | 180                             |
| 4/0        | 4                | 16.2             | 5416             | 0.051                 | 0.062                 | 0.041                      | 184                             | 208                             |
| 4/0        | 4                | 15.5             | 5416             | 0.051                 | 0.062                 | 0.041                      | 184                             | 208                             |
| 250        | 4                | 15.9             | 6400             | 0.043                 | 0.053                 | 0.041                      | 204                             | 232                             |
| 350        | 4                | 17.6             | 8960             | 0.031                 | 0.039                 | 0.040                      | 248                             | 280                             |
| 400        | 4                | 19.2             | 10240            | 0.027                 | 0.035                 | 0.040                      | 268                             | 304                             |
| 600        | 4                | 20.9             | 15360            | 0.018                 | 0.025                 | 0.039                      | 336                             | 380                             |

\* 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.

