



# Armorlite® Type MC THHN/THWN Copper Conductor Feeder Cable 277/480V Colors

Copper THHN/THWN-2 Insulated Singles. Green or Bare Copper Grounding Conductor. UL Listed. 600 Volts. Rated VW-1. Lightweight Aluminum Interlocked Armor.

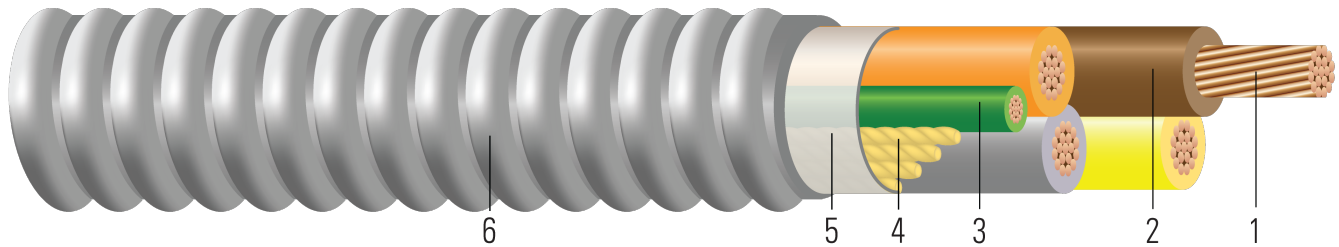


Image not to scale. See Table 1 for dimensions.

## CONSTRUCTION:

1. **Conductor:** Class B compressed copper per ASTM B3 and ASTM B8
2. **Insulation:** All phases are insulated with Polyvinyl Chloride with Nylon Sheath Type THHN/THWN
3. **Ground:** Green Insulated or bare stranded copper ground
4. **Filler:** Fillers as needed
5. **Binder:** Mylar tape
6. **Armor:** Aluminum Interlocked Armor

## APPLICATIONS AND FEATURES:

Southwire Armorlite® Type MC Feeder Cable is suitable for use as follows:

- 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.
- 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.
- Binder tape with print legend wrapped around assembly.
- Type THHN/THWN rated 90°C Dry.
- Anti-short bushings are not required for use with MC cable per NEC and UL

Southwire Armorlite® Type MC 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



- 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
- 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:**

E96627 {UL} TYPE MC AWG XX THHN OR THWN CDRS FOR USE IN CABLE TRAYS 600 VOLTS

**Table 1 – Weights and Measurements**

| Stock Number | Cond. Size    | Conductor Number | Color       | Diameter Over Conductor | Conductor Stranding | Insulation Thickness | Ground Size  | Diameter Over Armor | Copper Weight | Overall Weight |
|--------------|---------------|------------------|-------------|-------------------------|---------------------|----------------------|--------------|---------------------|---------------|----------------|
|              | AWG/<br>Kcmil |                  |             | inch                    |                     | mils                 | No. x<br>AWG | inch                | lbs/1000ft    | lbs/1000ft     |
| 562658◇      | 1             | 3                | BN,OE,YW    | 0.322                   | 19                  | 60                   | 1x6 GG       | 1.270               | 864           | 1141           |
| 562656◇      | 1/0           | 3                | BN,OE,YW    | 0.361                   | 19                  | 60                   | 1x6 GG       | 1.241               | 1069          | 1360           |
| 560107◇      | 400           | 3                | BN,OE,YW    | 0.705                   | 37                  | 70                   | 1x250<br>GG  | 2.278               | 4521          | 5305           |
| 669316       | 500           | 3                | BN,OE,YW    | 0.789                   | 37                  | 70                   | 1x2/0 GG     | 2.307               | 5092          | 5790           |
| 668046◇      | 500           | 3                | BN,OE,YW    | 0.789                   | 37                  | 70                   | 1x4/0 GG     | 2.343               | 5337          | 6043           |
| 579232◇      | 600           | 3                | BN,OE,YW    | 0.865                   | 61                  | 80                   | 1x350<br>GG  | 2.578               | 6704          | 7666           |
| 582068◇      | 1             | 4                | BN,OE,YW,GY | 0.322                   | 19                  | 60                   | 1x6 GG       | 1.331               | 1125          | 1482           |
| 562469◇      | 1/0           | 4                | BN,OE,YW,GY | 0.361                   | 19                  | 60                   | 1x6          | 1.365               | 1447          | 1809           |
| 668615◇      | 4/0           | 4                | BN,OE,YW,GY | 0.512                   | 19                  | 60                   | 1x3 GG       | 1.883               | 2803          | 3413           |
| 653131◇      | 250           | 4                | PE,TN,PK,GY | 0.558                   | 37                  | 70                   | 1x4 GG       | 2.029               | 3248          | 3919           |
| 553839◇      | 350           | 4                | BN,OE,YW,GY | 0.661                   | 37                  | 70                   | 1x1          | 2.303               | 4627          | 5382           |
| 579949       | 400           | 4                | BN,OE,YW,GY | 0.705                   | 37                  | 70                   | 1x2/0 GG     | 2.358               | 5404          | 6273           |
| 596449       | 400           | 4                | BN,OE,YW,GY | 0.705                   | 37                  | 70                   | 1x250<br>GG  | 2.609               | 5769          | 6699           |
| 139624◇      | 600           | 4                | PE,TN,PK,GY | 0.865                   | 61                  | 80                   | 1x2/0 GG     | 2.772               | 7899          | 8971           |
| 138231◇      | 600           | 4                | BN,OE,YW,GY | 0.865                   | 61                  | 80                   | 1x2 GG       | 2.664               | 7691          | 8643           |

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

**Note:** GG = Green insulated 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/<br>Kcmil |                  | Inches           | Lbs              | Ω/1000ft              | Ω/1000ft              | Ω/1000ft                   | Amp                             | Amp                             |
| 1             | 3                | 8.9              | 2008             | 0.128                 | 0.154                 | 0.046                      | 130                             | 145                             |
| 1/0           | 3                | 8.7              | 2534             | 0.102                 | 0.122                 | 0.044                      | 150                             | 170                             |
| 400           | 3                | 15.9             | 9600             | 0.027                 | 0.035                 | 0.040                      | 335                             | 380                             |
| 500           | 3                | 16.1             | 12000            | 0.022                 | 0.029                 | 0.039                      | 380                             | 430                             |
| 500           | 3                | 16.4             | 12000            | 0.022                 | 0.029                 | 0.039                      | 380                             | 430                             |
| 600           | 3                | 18.0             | 14400            | 0.018                 | 0.025                 | 0.039                      | 420                             | 475                             |
| 1             | 4                | 9.3              | 2142             | 0.128                 | 0.154                 | 0.046                      | 104                             | 116                             |
| 1/0           | 4                | 9.6              | 2703             | 0.102                 | 0.122                 | 0.044                      | 120                             | 136                             |
| 4/0           | 4                | 9.6              | 5417             | 0.102                 | 0.122                 | 0.044                      | 184                             | 208                             |
| 250           | 4                | 14.2             | 6400             | 0.043                 | 0.053                 | 0.041                      | 204                             | 232                             |
| 350           | 4                | 16.1             | 8960             | 0.031                 | 0.039                 | 0.040                      | 248                             | 280                             |
| 400           | 4                | 16.5             | 10240            | 0.027                 | 0.035                 | 0.040                      | 268                             | 304                             |
| 400           | 4                | 18.3             | 10240            | 0.027                 | 0.035                 | 0.040                      | 268                             | 304                             |
| 600           | 4                | 19.4             | 15360            | 0.018                 | 0.025                 | 0.039                      | 336                             | 380                             |
| 600           | 4                | 18.6             | 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.

