



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

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

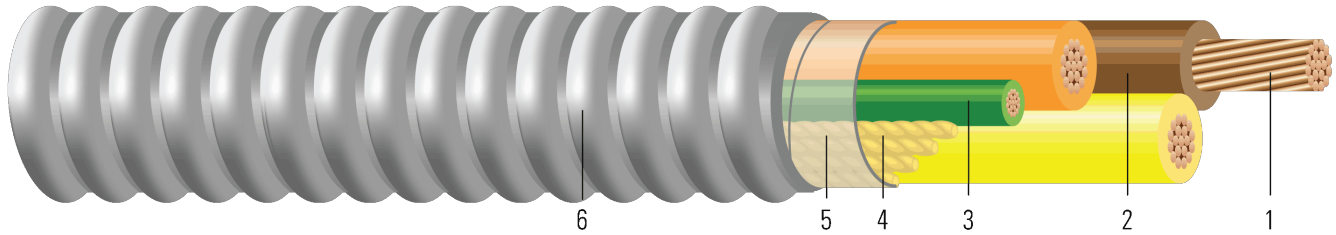


Image not to scale. See Table 1 for dimensions.

## 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:** Galvanized Steel 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(D)(2)
- 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.

**Southwire Duraclad® 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

**Color Code - 3/C:** Brown, Orange, Yellow

**4/C:** Brown, Orange, Yellow, Gray

## 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     |
| 665920       | 3/0           | 3                | BN,OE,YW | 0.456                   | 19                  | 50                   | 1x4 GG       | 1.506               | 1699          | 2369           |
| 677966       | 4/0           | 3                | BN,OE,YW | 0.512                   | 19                  | 60                   | 1x4 GG       | 1.543               | 2109          | 2908           |
| 678473       | 400           | 3                | BN,OE,YW | 0.705                   | 37                  | 60                   | 1x1/0 GG     | 2.168               | 4071          | 5054           |
| 677968◊      | 600           | 3                | BN,OE,YW | 0.865                   | 61                  | 80                   | 1x1/0 GG     | 2.395               | 5942          | 7285           |

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                             |
| 3/0           | 3                | 10.5             | 4027             | 0.064                 | 0.078                 | 0.042                      | 200                             | 225                             |
| 4/0           | 3                | 10.8             | 5078             | 0.051                 | 0.062                 | 0.041                      | 230                             | 260                             |
| 400           | 3                | 15.2             | 9600             | 0.027                 | 0.035                 | 0.04                       | 335                             | 380                             |
| 600           | 3                | 16.8             | 14400            | 0.018                 | 0.025                 | 0.039                      | 420                             | 475                             |

\* Ampacities based upon 2023 NEC Table 310.16. See NEC sections 310.15 and 110.14(C) for additional requirements.

