

# Armorlite® Type MC THHN/THWN Copper Conductor Feeder Cable

Copper THHN/THWN-2 Insulated Singles. 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:** 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.

#### Southwire Armorlite® Type MC Cable - meets or exceeds the following requirements:

- UL Online Product Guide Info Metal-Clad Cable (PJAZ) ( 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<br>Number | Cond.<br>Size | Conductor<br>Number | Diameter Over<br>Conductor | Conductor<br>Stranding | Insulation<br>Thickness | Ground<br>Size | Diameter Over<br>Armor | Copper<br>Weight | Overall<br>Weight |
|-----------------|---------------|---------------------|----------------------------|------------------------|-------------------------|----------------|------------------------|------------------|-------------------|
|                 | AWG/<br>Kcmil |                     | inch                       |                        | mils                    | No. x<br>AWG   | inch                   | lbs/1000ft       | lbs/1000ft        |
| 564202◊         | 500           | 4                   | 0.789                      | 37                     | 70                      | 1x1/0          | 2.495                  | 6566             | 7408              |

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.<br>Size | Conductor<br>Number | Min. Bend<br>Radius | Max Pull<br>Tension | DC Resistance<br>at 25°C | AC Resistance<br>at 75°C | Inductive<br>Reactance @ 60Hz | Allowable Ampacity<br>Raceway 75°C | Allowable Ampacity<br>Raceway 90°C |
|---------------|---------------------|---------------------|---------------------|--------------------------|--------------------------|-------------------------------|------------------------------------|------------------------------------|
| AWG/<br>Kcmil |                     | Inches              | Lbs                 | Ω/1000ft                 | Ω/1000ft                 | Ω/1000ft                      | Amp                                | Amp                                |
| 500           | 4                   | 17.5                | 12800               | 0.022                    | 0.029                    | 0.039                         | 304                                | 344                                |

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



<sup>\*</sup> Ampacities have been adjusted for more than Three Current-Carrying Conductors.