



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

Aluminum THHN/THWN-2 Insulated Singles with 8000 series Triple E™ Aluminum Alloy. Bare AlumaFlex™ Aluminum Alloy Grounding Conductor. UL Listed. 600 Volts. Rated VW-1. Lightweight Aluminum Interlocked Armor.

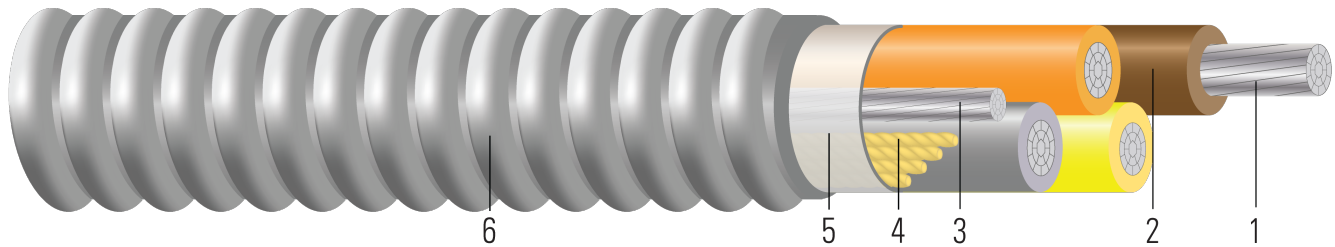


Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

1. **Conductor:** Class B compact stranded 8000 Series aluminum per ASTM B800 and ASTM B801 or ASTM B836
2. **Insulation:** All phases are insulated with Polyvinyl Chloride with Nylon Sheath Type THHN/THWN
3. **Ground:** Bare aluminum 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.
- Suitable for power and lighting circuits.
- Places of Assembly per NEC 518.4 and theaters per NEC 520.5.
- Environmental air-handling spaces per NEC 300.22 (C).
- 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.
- Type THHN/THWN rated 90°C Dry/ 75°C Wet
- Anti-short bushings are not required for use with MC cable per NEC and UL

Southwire Armorlite® Type MC Feeder 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

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

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





SPECIFICATIONS:

- ASTM B800 8000 Series Aluminum Alloy Wire
- ASTM B801 Concentric-Lay-Stranded Conductors of 8000 Series Aluminum Alloy
- ASTM B836 Compact Rounded Stranded Aluminum 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 Compliant Lead-Free, Silicone-Free
- 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 | Overall Weight |
|--------------|---------------|------------------|-------------|-------------------------|---------------------|----------------------|--------------|---------------------|----------------|
| | AWG/ Kcmil | | | inch | | mils | No. x AWG | inch | lbs/1000ft |
| 565427◇ | 1/0 | 3 | BN,OE,YW | 0.336 | 10 | 60 | 1x4 | 1.240 | 614 |
| 563370◇ | 2/0 | 3 | BN,OE,GY | 0.376 | 12 | 60 | 1x4 | 1.276 | 705 |
| 565429◇ | 2/0 | 3 | BN,OE,YW, | 0.376 | 12 | 60 | 1x4 | 1.276 | 705 |
| 562811◇ | 3/0 | 3 | BN,OE,YW | 0.422 | 16 | 60 | 1x4 | 1.377 | 833 |
| 562708◇ | 4/0 | 3 | BN,OE,YW | 0.474 | 19 | 60 | 1x2 | 1.590 | 1087 |
| 561587◇ | 250 | 3 | BN,OE,YW | 0.520 | 22 | 70 | 1x2/0 | 1.735 | 1336 |
| 562816◇ | 250 | 3 | BN,OE,YW | 0.520 | 22 | 70 | 1x1 | 1.731 | 1292 |
| 562818◇ | 300 | 3 | BN,OE,YW | 0.569 | 21 | 70 | 1x1 | 1.843 | 1474 |
| 563052◇ | 350 | 3 | BN,OE,YW | 0.615 | 35 | 70 | 1x1 | 1.942 | 1651 |
| 562704◇ | 400 | 3 | BN,OE,YW | 0.659 | 35 | 70 | 1x3/0 | 2.035 | 1911 |
| 573366◇ | 600 | 3 | BN,OE,YW | 0.812 | 41 | 80 | 1x400 | 2.662 | 2916 |
| 563046◇ | 750 | 3 | BN,OE,YW | 0.908 | 58 | 80 | 1x1/0 | 2.620 | 3121 |
| 563365◇ | 1/0 | 4 | BN,OE,YW,GY | 0.336 | 10 | 60 | 1x4 | 1.304 | 778 |
| 563374◇ | 2/0 | 4 | BN,OE,YW,GY | 0.376 | 12 | 60 | 1x4 | 1.400 | 918 |
| 559894◇ | 3/0 | 4 | BN,OE,YW,GY | 0.422 | 16 | 60 | 1x4 | 1.614 | 1168 |
| 559896◇ | 4/0 | 4 | BN,OE,YW,GY | 0.474 | 19 | 60 | 1x2 | 1.739 | 1414 |
| 559904◇ | 250 | 4 | BN,OE,YW,GY | 0.520 | 22 | 70 | 1x1 | 1.901 | 1678 |
| 559907◇ | 300 | 4 | BN,OE,YW,GY | 0.569 | 21 | 70 | 1x1 | 2.022 | 1933 |
| 559909◇ | 350 | 4 | BN,OE,YW,GY | 0.615 | 35 | 70 | 1x1/0 | 2.106 | 2199 |
| 559911◇ | 400 | 4 | BN,OE,YW,GY | 0.659 | 35 | 70 | 1x3/0 | 2.237 | 2491 |
| 559915◇ | 500 | 4 | BN,OE,YW,GY | 0.735 | 34 | 70 | 1x3/0 | 2.423 | 2948 |
| 138297 | 500 | 4 | BN,OE,YW,GY | 0.735 | 34 | 70 | 1x350 | 2.663 | 3186 |
| 559917◇ | 600 | 4 | BN,OE,YW,GY | 0.812 | 41 | 80 | 1x3/0 | 2.642 | 3508 |
| 559869◇ | 600 | 4 | BN,OE,YW,GY | 0.812 | 41 | 80 | 1x400 | 2.781 | 3752 |
| 559919◇ | 750 | 4 | BN,OE,YW,GY | 0.908 | 53 | 80 | 1x3/0 | 2.891 | 4227 |
| 593450 | 750 | 4 | BN,OE,YW,GY | 0.908 | 53 | 80 | 1x350 | 3.196 | 4452 |
| 559866◇ | 900 | 4 | BN,OE,YW,GY | 0.999 | 58 | 80 | 1x250 | 3.148 | 5062 |

All dimensions are nominal and subject to normal manufacturing tolerances

◇ Cable marked with this symbol is a standard stock item

* Strand count meets minimum number per ASTM





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 |
| 1/0 | 3 | 8.7 | 1900 | 0.168 | 0.201 | 0.044 | 120 | 135 |
| 2/0 | 3 | 8.9 | 2395 | 0.133 | 0.160 | 0.043 | 135 | 150 |
| 2/0 | 3 | 8.9 | 2395 | 0.133 | 0.160 | 0.043 | 135 | 150 |
| 3/0 | 3 | 9.6 | 3020 | 0.105 | 0.126 | 0.042 | 155 | 175 |
| 4/0 | 3 | 11.1 | 3808 | 0.084 | 0.100 | 0.041 | 180 | 205 |
| 250 | 3 | 12.1 | 4500 | 0.071 | 0.086 | 0.041 | 205 | 230 |
| 250 | 3 | 12.1 | 4500 | 0.071 | 0.086 | 0.041 | 205 | 230 |
| 300 | 3 | 12.9 | 5400 | 0.059 | 0.071 | 0.041 | 230 | 260 |
| 350 | 3 | 13.6 | 6300 | 0.050 | 0.062 | 0.040 | 250 | 280 |
| 400 | 3 | 14.2 | 7200 | 0.044 | 0.054 | 0.040 | 270 | 305 |
| 600 | 3 | 18.6 | 10800 | 0.029 | 0.037 | 0.039 | 340 | 385 |
| 750 | 3 | 18.3 | 13500 | 0.024 | 0.031 | 0.038 | 385 | 435 |
| 1/0 | 4 | 9.1 | 2027 | 0.168 | 0.201 | 0.044 | 96 | 108 |
| 2/0 | 4 | 9.8 | 2555 | 0.133 | 0.160 | 0.043 | 108 | 120 |
| 3/0 | 4 | 11.3 | 3221 | 0.105 | 0.126 | 0.042 | 124 | 140 |
| 4/0 | 4 | 12.2 | 4062 | 0.084 | 0.100 | 0.041 | 144 | 164 |
| 250 | 4 | 13.3 | 4800 | 0.071 | 0.086 | 0.041 | 164 | 184 |
| 300 | 4 | 14.2 | 5760 | 0.059 | 0.071 | 0.041 | 184 | 208 |
| 350 | 4 | 14.7 | 6720 | 0.050 | 0.062 | 0.040 | 200 | 224 |
| 400 | 4 | 15.7 | 7680 | 0.044 | 0.054 | 0.040 | 216 | 244 |
| 500 | 4 | 17.0 | 9600 | 0.035 | 0.044 | 0.039 | 248 | 280 |
| 500 | 4 | 18.6 | 9600 | 0.035 | 0.044 | 0.039 | 248 | 280 |
| 600 | 4 | 18.5 | 11520 | 0.029 | 0.037 | 0.039 | 272 | 308 |
| 600 | 4 | 19.5 | 11520 | 0.029 | 0.037 | 0.039 | 272 | 308 |
| 750 | 4 | 20.2 | 14400 | 0.024 | 0.031 | 0.038 | 308 | 348 |
| 750 | 4 | 22.4 | 14400 | 0.024 | 0.031 | 0.038 | 308 | 348 |
| 900 | 4 | 22.0 | 17280 | 0.020 | 0.027 | 0.037 | 340 | 384 |

* 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.

