



# 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.

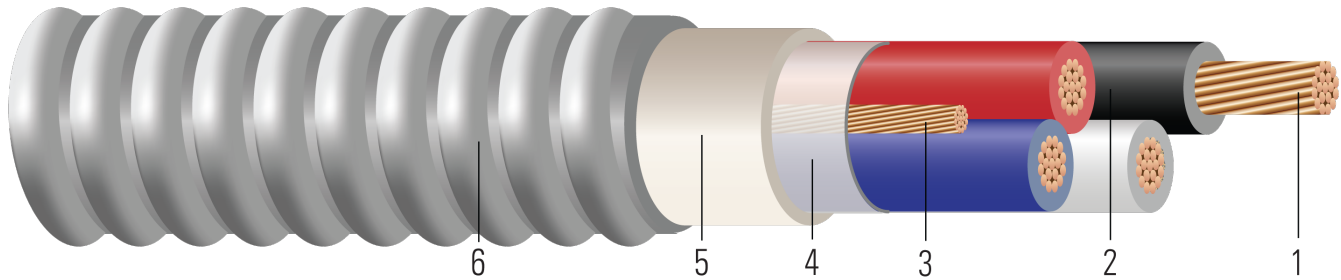


Image not to scale. See Table 1 for dimensions.

## 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. **Armor:** 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 )
- 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	Copper Weight	Overall Weight
	AWG/ Kcmil			inch		mils	No. x AWG	inch	lbs/ 1000ft	lbs/ 1000ft
587704◇	3/0	3	BK,RD,WE	0.456	19	60	1x1/0	1.944	1899	2647
583932◇	4	4	BN,OE,YW,GY,GN	0.226	19	50	1x8 GG	1.326	572	1008
640554	1	4	BN,OE,YW,GY,GN	0.322	19	60	1x6 GG	1.658	1126	1782
587705◇	1	4	BK,RD,BE,WE	0.322	19	60	1x3	1.818	1208	1932
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





**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
3/0	3	13.6	4027	0.064	0.078	0.042	200	225
4	4	9.3	1068	0.258	0.310	0.048	68	76
1	4	11.6	2142	0.128	0.154	0.046	104	116
1	4	12.7	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.

