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.

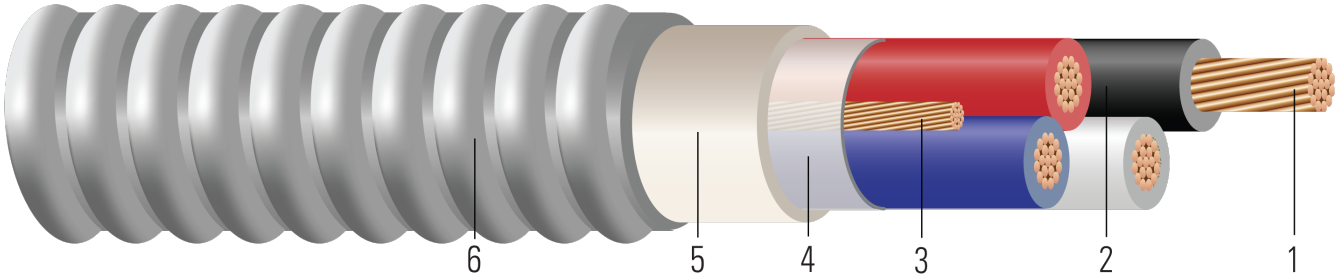

Image not to scale. See Table 1 for dimensions.

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 90ºC 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	Jacket Thickness	Approx. OD	Copper Weight	Overall Weight
	AWG/ Kcmil			inch		mils	No. x AWG	inch	mil	inch	lbs/ 1000ft	lbs/ 1000ft
646552	2/0	4	BN,OE,YW,GY,GN	0.364	19	60	1x3	1.924	50	1.924	1824	2664
640551	3/0	4	BN,OE,YW,GY,GN	0.409	19	60	1x2	2.086	60	2.086	2299	3234
587704◊	3/0	3	BK,RD,WE	0.456	19	60	1x1/0	1.944			1899	2647
674323	4/0	4	BN,OE,YW,GY,GN	0.46	19	60	1x2	2.113	60	2.113	2846	3791
598048	400	4	BN,OE,YW,GY,GN	0.659	37	70	1x4/0	2.841	50	2.841	5649	7003
583932◊	4	4	BN,OE,YW,GY,GN	0.226	19	50	1x8 GG	1.326			572	1008
587705◊	1	4	BK,RD,BE,WE	0.322	19	60	1x3	1.818			1208	1932
640554	1	4	BN,OE,YW,GY,GN	0.322	19	60	1x6 GG	1.658			1126	1782
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
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/ Kcmil		Inches	Lbs	Ω/1000ft	Ω/1000ft	Ω/1000ft	Amp	Amp
2/0	4	13.4	3407	0.081	0.097	0.043	140	156
3/0	4	14.6	4295	0.064	0.078	0.042	160	180
3/0	3	13.6	4027	0.064	0.078	0.042	200	225
4/0	4	14.7	5416	0.051	0.062	0.041	184	208
400	4	19.8	12800	0.044	0.054	0.04	268	304
4	4	9.3	1068	0.258	0.310	0.048	68	76
1	4	12.7	2142	0.128	0.154	0.046	104	116
1	4	11.6	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.