

Armorlite® Type MC THHN/THWN Intermediate Size Copper Conductor 120/208V Colors

Copper THHN/THWN Insulated Singles. Green Insulated Copper Grounding Conductor. UL Listed. 600 Volts Rated VW-1. Lightweight Aluminum Interlocked Armor.

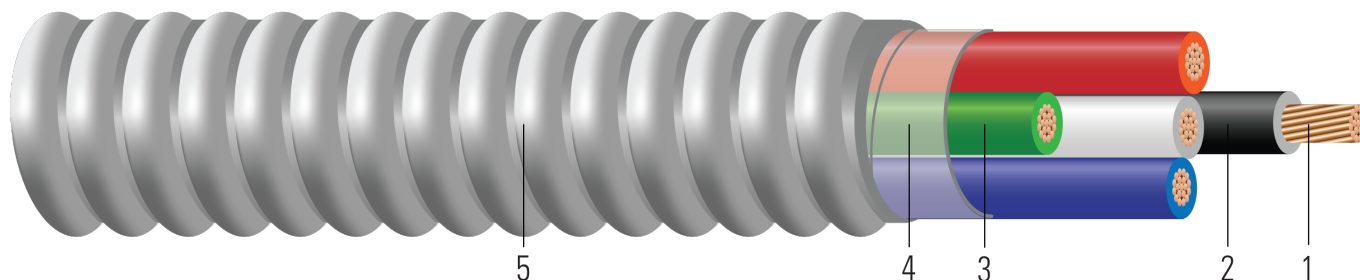


Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

1. **Conductor:** 19 strands class C 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 ground. Polyvinyl Chloride with Nylon Sheath Type THHN/THWN
4. **Binder:** Mylar tape
5. **Armor:** Aluminum Interlocked Armor

APPLICATIONS AND FEATURES:

Southwire Armorlite® Type MC Cable is suitable for use as follows:

- 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.
- Under raised floors for information technology equipment conductors and cables per NEC Article 645
- 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 Standard Specification for Soft or Annealed Copper Wire
- ASTM B8 Concentric-Lay-Stranded Copper Conductors
- UL 83 Thermoplastic Insulated Wires and Cables
- UL 1569 Metal-Clad Cables



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Southwire

**CABLETECH
SUPPORT™**

Services

- 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
- REACH/RoHS-2 (Chemical Limit) Compliant
- 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.
- VW-1 (Vertical-Wire) Flame Test

SAMPLE PRINT LEGEND:

SOUTHWIRE E96627 MASTER-DESIGN {UL} TYPE MC XX AWG 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 x Num	Diameter Over Armor	Overall Weight
	AWG/ Kcmil			inch		mils	No. x AWG	inch	lbs/1000ft
687095◇	8	2	BK/WE	0.143	19	35	1x10	0.653	221
551175◇	8	2	RD/WE	0.143	19	35	1x10	0.653	221
551177◇	8	2	BE/WE	0.143	19	35	1x10	0.653	221
687137◇	8	3	BK/RD/WE	0.143	19	35	1x10	0.764	320
551180◇	8	3	RD/BE/WE	0.143	19	35	1x10	0.764	320
687210◇	8	4	BK/RD/BE/WE	0.143	19	35	1x10	0.829	393
687103◇	6	2	BK/WE	0.179	19	35	1x8	0.789	349
687145◇	6	3	BK/RD/WE	0.179	19	35	1x8	0.858	455
687251◇	6	4	BK/RD/BE/WE	0.179	19	35	1x8	0.932	562
687152◇	4	3	BK/RD/WE	0.226	19	50	1x8	0.985	643
687228◇	4	4	BK/RD/BE/WE	0.226	19	50	1x8	1.085	823
687160◇	3	3	BK/RD/WE	0.254	19	50	1x6	1.058	797
687236◇	3	4	BK/RD/BE/WE	0.254	19	50	1x6	1.162	1000
687178◇	2	3	BK/RD/WE	0.286	19	50	1x6	1.159	947
687244◇	2	4	BK/RD/BE/WE	0.286	19	50	1x6	1.233	1210

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 plus neutral. Does not include green ground.



Table 2 – Electrical and Engineering Data

Stock Number	Cond. Size	Min. Bend Radius	Max Pull Tension	DC Resistance at 25°C	AC Resistance at 75°C	Allowable Ampacity Raceway 60°C [†]	Allowable Ampacity Raceway 75°C [†]	Allowable Ampacity Raceway 90°C [†]
	AWG/Kcmil	Inches	Lbs	Ω/1000ft	Ω/1000ft	Amp	Amp	Amp
687095◇	8	4.5	264	0.653	0.786	40	50	55
551175◇	8	4.5	264	0.653	0.786	40	50	55
551177◇	8	4.5	264	0.653	0.786	40	50	55
687137◇	8	5.3	396	0.653	0.786	40	50	55
551180◇	8	5.3	396	0.653	0.786	40	50	55
687210◇	8	5.8	528	0.653	0.786	32	40	44
687103◇	6	5.5	419	0.411	0.495	55	65	75
687145◇	6	6.0	629	0.411	0.495	55	65	75
687251◇	6	6.5	839	0.411	0.495	44	52	60
687152◇	4	6.8	1001	0.258	0.310	70	85	95
687228◇	4	7.5	1335	0.258	0.310	56	68	76
687160◇	3	7.4	1262	0.205	0.246	85	100	115
687236◇	3	8.1	1683	0.205	0.246	68	80	92
687178◇	2	8.1	1592	0.162	0.195	95	115	130
687244◇	2	8.6	2123	0.162	0.195	76	92	104

[†] Ampacities have been adjusted for more than Three Current-Carrying Conductors

[†] Ampacities based upon 2023 NEC Table 310.16 and do not take into account the overcurrent protection limitations in NEC 240.4(D) of 15 Amps for 14 AWG CU, 20 Amps for 12 AWG CU, and 30 Amps for 10 AWG CU (independent of the conductor temperature rating and stranding). Also, see NEC sections 310.15 and 110.14(C) for additional requirements.

