

## Armorlite® Type MC THHN/THWN Circuit Size Copper Conductor Multi Circuits

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

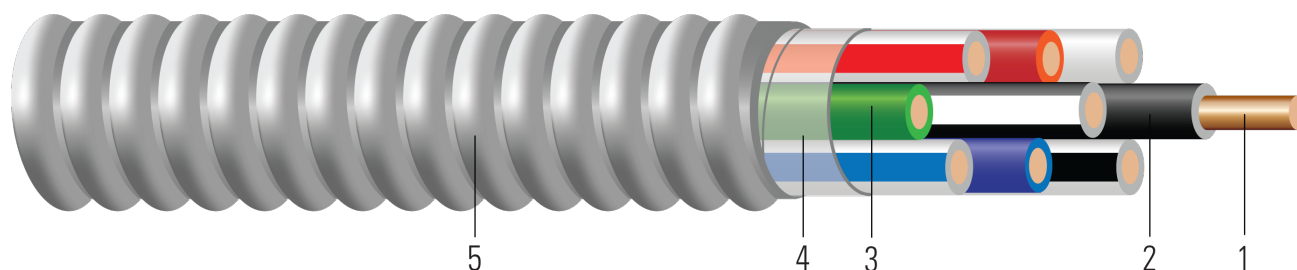


Image not to scale. See Table 1 for dimensions.

### CONSTRUCTION:

1. **Conductor:** Solid or 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 - Multi-Circuit is suitable for use as follow:**

- Multiple circuits for 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 645.5(D) & 645.5(D)(2)
- 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 - Multi-Circuit meets or exceeds the following requirements:**

- UL Online Product Guide Info - Metal-Clad Cable (PJAZ) ( [www.ul.com](http://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



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Southwire

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SUPPORT™**

Services

- 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
- 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.
- REACH - European Community Regulation

### SAMPLE PRINT LEGEND:

E96627 MASTER-DESIGN {UL} TYPE MC XX AWG THHN OR THWN CDRS WITH X X XX AWG NEUTRAL FOR USE IN CABLE TRAYS 600 VOLTS

**Table 1 – Weights and Measurements**

Stock Number	Cond. Size	Conductor Number	Conductor Stranding	Insulation Thickness	Ground Size x Num	Diameter Over Armor	Overall Weight
	AWG/Kcmil			mils	No. x AWG	inch	lbs/1000ft
555951◇	12	5	Solid	20	1 x 12	0.590	189
690057◇	12	6	Solid	20	1 x 12	0.590	213
563324◇	12	6	Solid	20	1 x 12	0.590	213
690065◇	12	8	Solid	20	1 x 12	0.665	268
596437◇	12	8	Solid	20	1 x 12	0.665	268
586407◇	12	9	Solid	20	1 x 12	0.763	325
690073◇	12	12	Solid	20	1 x 12	0.813	403
552970◇	10	6	Solid	25	1 x 10	0.683	314
587714◇	10	6	Solid	25	1 x 10	0.683	314
690081◇	10	8	Solid	25	1 x 10	0.759	420
552986◇	10	12	Solid	25	1 x 10	0.950	592

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	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	Ω/1000ft	Ω/1000ft	Amp	Amp	Amp
555951◇	12	4.1	1.662	2.002	16	20	24
690057◇	12	4.1	1.662	2.002	16	20	24
563324◇	12	4.1	1.662	2.002	16	20	24
690065◇	12	4.6	1.662	2.002	14	17	21
596437◇	12	4.6	1.662	2.002	14	17	21
586407◇	12	5.3	1.662	2.002	14	17	21
690073◇	12	5.6	1.662	2.002	10	12	15
552970◇	10	4.7	1.040	1.253	24	28	32
587714◇	10	4.7	1.040	1.253	24	28	32
690081◇	10	5.3	1.040	1.253	21	24	28
552986◇	10	6.6	1.040	1.253	15	17	20

† 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.

**Color Table**

Stock Number	Cond. Size	Cond. Num.	1	2	3	4	5	6	7	8	9	10	11	12	13
555951	12	5	Black	Red	Blue	White	Green								
690057	12	6	Black	Red	Black	White	Green								
563324	12	6	Black	Red	Blue	White	Green								
690065	12	8	Black	Red	Blue	White	Green								
596437	12	8	Black	Red	Blue	White	Green								
586407	12	9	Black	Red	Blue	White	Green								
690073	12	12	Black	Red	Blue	White	Green								
552970	10	6	Black	Red	Black	White	Green								
587714	10	6	Black	Red	Blue	White	Green								
552986	10	12	Black	Red	Blue	White	Green								

