MC-AP™ Type MC All Purpose THHN/THWN Circuit Size Copper Conductor 277/480 Colors

Copper THHN Insulated Conductors. Full-Sized Aluminum Equipment Grounding/Bonding Conductor. UL Listed 600 Volt. Rated VW1. Lightweight Aluminum Interlocked Armor is Part of Equipment Bonding/Grounding Path.

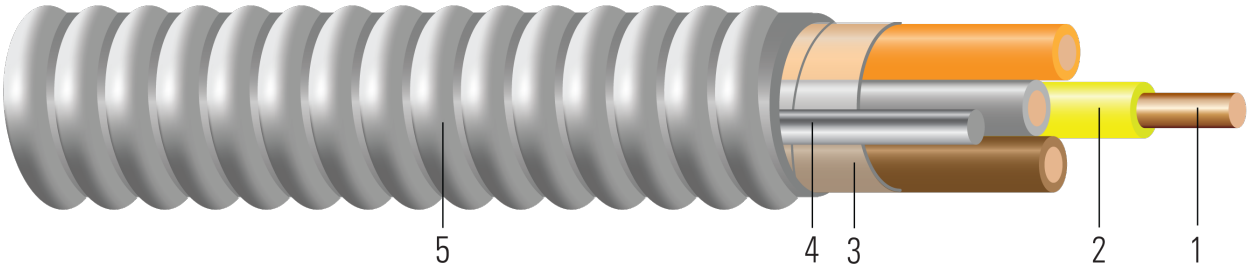

Image not to scale. See Table 1 for dimensions.

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. **Binder:** Mylar tape
4. **Ground:** Full-sized bare 8000 series aluminum grounding/bonding conductor. Armor and bare aluminum conductor form the equipment ground path.
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 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 90ºC 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 Soft or Annealed Copper Wire
- ASTM B8 Concentric-Lay-Stranded Copper Conductors
- UL 83 Thermoplastic Insulated Wires and Cables

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- 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-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.
- REACH - European Community Regulation

SAMPLE PRINT LEGEND:

E96627 MASTER-DESIGN {UL} TYPE MC XX AWG THHN OR THWN CDRS FOR USE IN CABLE TRAYS 600 VOLTS -- ARMOR IS EQUIPMENT GROUNDING PATH COMPONENT

Table 1 – Weights and Measurements

Stock Number	Cond. Size	Conductor Number	Color	Diameter Over Conductor	Conductor Stranding	Insulation Thickness	Ground Size	Num x Neutral Size	Diameter Over Armor	Overall Weight
	AWG/ Kcmil			inch		mils	No. x AWG	No. x AWG	inch	lbs/1000ft
555539◊	12	2	YEL/GY	0.080	Solid	20	1x10	1x12	0.493	92
555726◊	12	2	BN/GY	0.080	Solid	20	1x10	1x12	0.493	92
555538◊	12	2	OE/GY	0.080	Solid	20	1x10	1x12	0.493	92
555541◊	12	3	BN/YW/ GY	0.080	Solid	20	1x10	1x12	0.512	119
555728◊	12	3	BN/OE/ GY	0.080	Solid	20	1x10	1x12	0.512	119
555731◊	12	4	BN/OE/ YW/GY	0.080	Solid	20	1x10	1x12	0.544	145
555733◊	10	2	BN/GY	0.101	Solid	25	1x8	1x10	0.555	129
555735◊	10	3	BN/OE/ GY	0.101	Solid	25	1x8	1x10	0.580	168
555737◊	10	4	BN/OE/ YW/GY	0.101	Solid	25	1x8	1x10	0.619	208
558793◊	12	2	YEL/GY	0.090	19	20	1x10	1x12	0.507	96
558743◊	12	2	BN/GY	0.090	19	20	1x10	1x12	0.497	94
558790◊	12	2	OE/GY	0.090	19	20	1x10	1x12	0.507	95
558745◊	12	3	BN/OE/ YW	0.090	19	20	1x10	1x12	0.528	122
558747◊	12	4	BN/OE/ YW/GY	0.090	19	20	1x10	1x12	0.562	149

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.

Table 2 – Electrical and Engineering Data

Cond. Size	Conductor Number	Min. Bend Radius	DC Resistance at 25°C	AC Resistance at 75°C	Inductive Reactance @ 60Hz	Allowable Ampacity Raceway 60°C	Allowable Ampacity Raceway 75°C	Allowable Ampacity Raceway 90°C
AWG/ Kcmil		Inches	Ω/1000ft	Ω/1000ft	Ω/1000ft	Amp	Amp	Amp
12	2	3.4	1.662	2.002	0.054	20	25	30
12	2	3.4	1.662	2.002	0.054	20	25	30
12	2	3.4	1.662	2.002	0.054	20	25	30
12	3	3.5	1.662	2.002	0.054	20	25	30
12	3	3.5	1.662	2.002	0.054	20	25	30
12	4	3.8	1.662	2.002	0.054	16	20	24
10	2	3.8	1.040	1.253	0.050	30	35	40
10	3	4.0	1.040	1.253	0.050	30	35	40
10	4	4.3	1.040	1.253	0.050	24	28	32
12	2	3.5	1.662	2.002	0.054	20	25	30
12	2	3.4	1.662	2.002	0.054	20	25	30
12	2	3.5	1.662	2.002	0.054	20	25	30
12	3	3.6	1.662	2.002	0.054	20	25	30
12	4	3.9	1.662	2.002	0.054	16	20	24

***** 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 if size is present in table). Also, see NEC sections 310.15 and 110.14(C) for additional requirements.

***** Ampacities have been adjusted for more than Three Current-Carrying Conductors.