MC-AP™ Type MC All Purpose THHN/THWN Circuit Size Copper Conductor 120/208V 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.

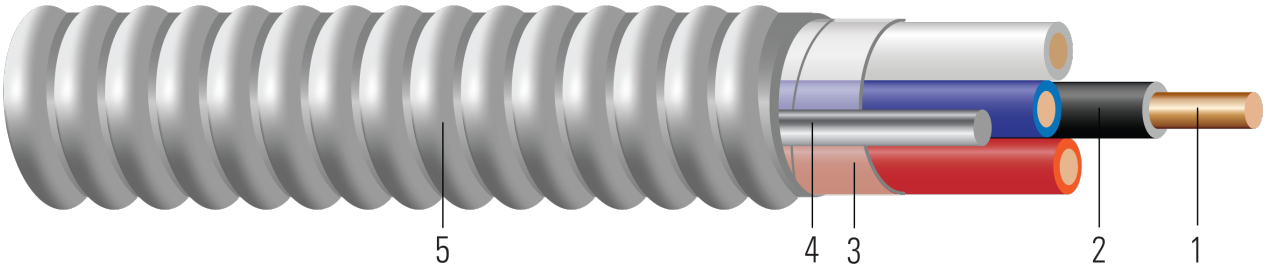


Image not to scale. See Table 1 for dimensions.

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 MC-AP All Purpose 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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UPDATED: Dec. 31, 2024, 11:08 p.m.UTC REVISION: 1.000.006

- 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.

SAMPLE PRINT LEGEND:

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

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Table 1 – Weights and Measurements

Stock Number	Cond. Size	Conductor Number	Color	Diameter Over Conductor	Conductor Stranding	Insulation Thickness	Diameter Over Armor	Copper Weight	Overall Weight
	AWG/ Kcmil			inch		mils	inch	lbs/1000ft	lbs/1000ft
14 AWG | SOLID Strands									
555272	14	2	BK,WE	0.064	SOLID	15	0.451	25	70
555273	14	3	BK,RD,WE	0.064	SOLID	15	0.468	38	87
555274	14	4	BK,RD,BE,WE	0.064	SOLID	15	0.492	50	104
12 AWG | SOLID Strands									
558768	12	2	RD,WE	0.081	SOLID	15	0.487	40	92
558770	12	2	BE,WE	0.081	SOLID	15	0.487	40	92
559841	12	2	BK,RD	0.081	SOLID	15	0.475	40	91
555103	12	2	BK,WE	0.081	SOLID	15	0.487	40	92
555104	12	3	BK,RD,WE	0.081	SOLID	15	0.507	60	118
559686	12	3	RD,WE,BE	0.081	SOLID	15	0.507	60	118
559684	12	3	BK,WE,BE	0.081	SOLID	15	0.507	60	118
555105	12	4	BK,RD,BE,WE	0.081	SOLID	15	0.538	80	144
567193	12	6	BK,RD,BE,WE/BK,WE/ RD,WE/BE	0.081	SOLID	15	0.61	120	199
567246	12	6	BK,BK/WE,RD/WE,RD,WE/ BK,WE	0.081	SOLID	15	0.61	120	199
558832	12	8	BK,BK/WE,RD,RD/ WE,BE,BE/WE,WE,WE/BK	0.081	SOLID	15	0.648	160	251
12 AWG | 19 Strands									
596058	12	3	RD,PE,WE	0.089	19	15	0.529	60	123
567208	12	4	BK,RD,WE/BK,WE/RD	0.089	19	15	0.562	80	151
10 AWG | SOLID Strands									
555275	10	2	BK,WE	0.102	SOLID	20	0.556	62	131
559972	10	2	BE,WE	0.102	SOLID	20	0.556	62	131
559969	10	2	RD,WE	0.102	SOLID	20	0.556	62	131
555277	10	3	BK,RD,WE	0.102	SOLID	20	0.581	93	170
555278	10	4	BK,RD,BE,WE	0.102	SOLID	20	0.62	124	210
562278	10	4	BK,RD,WE/BK,WE/RD	0.102	SOLID	20	0.62	124	210
567197	10	6	BK,RD,BE,WE/BK,WE/ RD,WE/BE	0.102	SOLID	20	0.71	186	293
558837	10	6	BK,BK/WE,RD,RD/ WE,WE,WE/BK	0.102	SOLID	20	0.71	186	293
10 AWG | 19 Strands									
555875	10	4	BK,WE,RD,BE	0.113	19	20	0.656	129	226
567218	10	6	BK,RD,BE,WE/BK,WE/ RD,WE/BE	0.113	19	20	0.805	194	345
567267	10	6	BK,RD,BK/WE,RD/WE,WE/ BK,WE	0.113	19	20	0.756	194	310
567030	8	2	BK,WE	0.142	19	30	0.682	103	197
567033	8	3	BK,RD,WE	0.142	19	30	0.717	154	264
12 AWG | 19 Strands									

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Stock Number	Cond. Size	Conductor Number	Color	Diameter Over Conductor	Conductor Stranding	Insulation Thickness	Diameter Over Armor	Copper Weight	Overall Weight
	AWG/ Kcmil			inch		mils	inch	lbs/1000ft	lbs/1000ft
558788	12	2	BE,WE	0.09	19	15	0.507	40	96
558786	12	2	RD,WE	0.09	19	15	0.507	40	96
556377	12	2	BK,WE	0.09	19	15	0.507	40	96
556457	12	3	BK,RD,WE	0.09	19	15	0.529	60	123
555874	12	4	BK,RD,BE,WE	0.09	19	15	0.562	80	151
10 AWG | 19 Strands									
557387	10	2	BK,WE	0.117	19	20	0.586	65	139
557390	10	3	BK,RD,WE	0.117	19	20	0.614	97	181

All dimensions are nominal and subject to normal manufacturing tolerances
◊ Cable marked with this symbol is a standard stock item
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.

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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 75°C	Allowable Ampacity Raceway 90°C
AWG/ Kcmil		Inches	Ω/1000ft	Ω/1000ft	Ω/1000ft	Amp	Amp
14 AWG | SOLID Strands							
14	2	3.2	2.631	3.265	0.058	20	25
14	3	3.3	2.631	3.265	0.058	20	25
14	4	3.4	2.631	3.265	0.058	16	20
12 AWG | SOLID Strands							
12	2	3.4	1.662	2.063	0.054	25	30
12	2	3.4	1.662	2.063	0.054	25	30
12	2	3.3	1.662	2.063	0.054	25	30
12	2	3.4	1.662	2.063	0.054	25	30
12	3	3.5	1.662	2.063	0.054	25	30
12	3	3.5	1.662	2.063	0.054	25	30
12	3	3.5	1.662	2.063	0.054	25	30
12	4	3.8	1.662	2.063	0.054	20	24
12	6	4.3	1.662	2.063	0.054	20	24
12	6	4.3	1.662	2.063	0.054	20	24
12	8	4.5	1.662	2.063	0.054	18	21
12 AWG | 19 Strands							
12	3	3.7	1.662	2.063	0.054	25	30
12	4	3.9	1.662	2.063	0.054	20	24
10 AWG | SOLID Strands							
10	2	3.9	1.04	1.291	0.05	35	40
10	2	3.9	1.04	1.291	0.05	35	40
10	2	3.9	1.04	1.291	0.05	35	40
10	3	4.1	1.04	1.291	0.05	35	40
10	4	4.3	1.04	1.291	0.05	28	32
10	4	4.3	1.04	1.291	0.05	28	32
10	6	5	1.04	1.291	0.05	28	32
10	6	5	1.04	1.291	0.05	28	32
10 AWG | 19 Strands							
10	4	4.6	1.04	1.291	0.05	28	32
10	6	5.6	1.04	1.291	0.05	28	32
10	6	5.3	1.04	1.291	0.05	28	32
8	2	4.8	0.653	0.81	0.052	50	55
8	3	5	0.653	0.81	0.052	50	55
12 AWG | 19 Strands							
12	2	3.5	1.662	2.063	0.054	25	30
12	2	3.5	1.662	2.063	0.054	25	30
12	2	3.5	1.662	2.063	0.054	25	30
12	3	3.7	1.662	2.063	0.054	25	30
12	4	3.9	1.662	2.063	0.054	20	24

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Cond. Size	Conductor Number	Min. Bend Radius	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	Ω/1000ft	Ω/1000ft	Ω/1000ft	Amp	Amp
10 AWG | 19 Strands							
10	2	4.1	1.04	1.291	0.05	35	40
10	3	4.3	1.04	1.291	0.05	35	40

***** 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.

MCAP Savings Calculator

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