Armorlite® Type MC THHN/THWN Circuit 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.

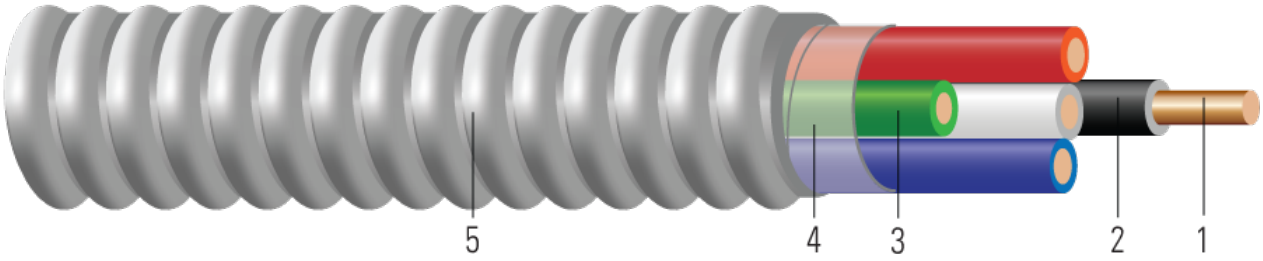


Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

1. **Conductor:** 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 with print legend wrapped around assembly.
5. **Armor:** Aluminum Interlocked Armor

Contact Southwire SPEED™ Services to request a quote.

APPLICATIONS AND FEATURES:

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

- Branch 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 90ºC Dry.
- Anti-Short bushing not required

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

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- 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
- 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.
- VW-1 (Vertical-Wire) Flame Test

SAMPLE PRINT LEGEND:

SOUTHWIRE E96627 {UL} TYPE MC XX AWG THHN OR THWN CDRS FOR USE IN CABLE TRAYS 600 VOLTS

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Table 1 – Weights and Measurements

Stock Number	Cond. Size	Conductor Number	Color	Diameter Over Conductor	Conductor Stranding	Insulation Thickness	Ground Size	Diameter Over Armor	Copper Weight	Overall Weight
	AWG/ Kcmil			inch		mils	No. x AWG	inch	lbs/1000ft	lbs/1000ft
685792◊	14	2	BK/WE	0.064	Solid	20	1x14	0.451	37	79
685826◊	14	3	BK/RD/ WE	0.064	Solid	20	1x14	0.478	50	97
687186◊	14	4	BK/RD/ BE/WE	0.064	Solid	20	1x14	0.508	62	116
689489◊	12	2	BE/WE	0.080	Solid	20	1x12	0.483	59	105
689521◊	12	2	RD/WE	0.080	Solid	20	1x12	0.483	59	105
685800◊	12	2	BK/WE	0.080	Solid	20	1x12	0.483	59	107
610971◊	12	3	RD/BE/ WE	0.080	Solid	20	1x12	0.514	79	132
610973◊	12	3	BK/BE/ WE	0.080	Solid	20	1x12	0.514	79	132
685834◊	12	3	BK/RD/ WE	0.080	Solid	20	1x12	0.514	79	132
687194◊	12	4	BK/RD/ BE/WE	0.080	Solid	20	1x12	0.549	99	159
550172◊	12	4	BK/RD/ BE/WE	0.080	Solid	20	1x12	0.549	99	159
610520◊	10	2	PE/GY	0.101	Solid	25	1x10	0.550	92	151
685818◊	10	2	BK/WE	0.101	Solid	25	1x10	0.550	92	151
610521◊	10	2	RD/WE	0.101	Solid	25	1x10	0.550	92	151
610518◊	10	2	BE/WE	0.101	Solid	25	1x10	0.550	92	151
685842◊	10	3	BK/RD/ WE	0.101	Solid	25	1x10	0.589	123	192
687202◊	10	4	BK/RD/ BE/WE	0.101	Solid	25	1x10	0.633	154	232
550177◊	14	2	BK/WE	0.073	19	20	1x14	0.468	38	83
550180◊	14	3	BK/RD/ WE	0.073	19	20	1x14	0.497	51	102
691147◊	12	2	BK/WE	0.090	19	20	1x12	0.504	60	110
691154◊	12	3	BK/RD/ WE	0.090	19	20	1x12	0.538	80	138
691162◊	12	4	BK/RD/ BE/WE	0.090	19	20	1x12	0.576	100	167
691170◊	10	2	BK/WE	0.117	19	25	1x10	0.583	97	163
691188◊	10	3	BK/RD/BE	0.117	19	25	1x10	0.626	129	206
691196◊	10	4	BK/RD/ BE/WE	0.117	19	25	1x10	0.674	161	251

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.

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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 60°C	Allowable Ampacity Raceway 75°C	Allowable Ampacity Raceway 90°C
AWG/ Kcmil		Inches	Ω/1000ft	Ω/1000ft	Ω/1000ft	Amp	Amp	Amp
14	2	3.2	2.631	3.170	0.058	15	20	25
14	3	3.3	2.631	3.170	0.058	15	20	25
14	4	3.6	2.631	3.170	0.058	12	16	20
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	3.6	1.662	2.002	0.054	20	25	30
12	3	3.6	1.662	2.002	0.054	20	25	30
12	3	3.6	1.662	2.002	0.054	20	25	30
12	4	3.8	1.662	2.002	0.054	16	20	24
12	4	3.8	1.662	2.002	0.054	16	20	24
10	2	3.9	1.040	1.253	0.050	30	35	40
10	2	3.9	1.040	1.253	0.050	30	35	40
10	2	3.9	1.040	1.253	0.050	30	35	40
10	2	3.9	1.040	1.253	0.050	30	35	40
10	3	4.1	1.040	1.253	0.050	30	35	40
10	4	4.4	1.040	1.253	0.050	24	28	32
14	2	3.3	2.631	3.170	0.058	15	20	25
14	3	3.5	2.631	3.170	0.058	15	20	25
12	2	3.5	1.662	2.002	0.054	20	25	30
12	3	3.8	1.662	2.002	0.054	20	25	30
12	4	4.0	1.662	2.002	0.054	16	20	24
10	2	4.1	1.040	1.253	0.050	30	35	40
10	3	4.4	1.040	1.253	0.050	30	35	40
10	4	4.7	1.040	1.253	0.050	24	28	32

* 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.