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.

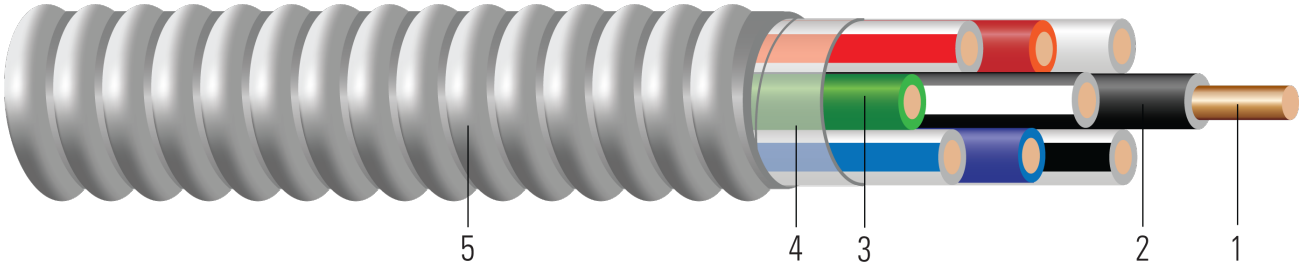


Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

1. **Conductor:** Solid copper per ASTM B3 or 19-strand class C compressed copper and ASTM B3 and B8
2. **Insulation:** Polyvinyl Chloride with Nylon Sheath Type THHN/THWN
3. **Ground:** Green Polyvinyl Chloride with Nylon Sheath Type THHN/THWN insulated ground conductor
4. **Binder:** Mylar tape
5. **Armor:** Aluminum Interlocked Armor

APPLICATIONS AND FEATURES:

Southwire Armorlite® Type MC Multi-Circuit Cable 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
- Unjacketed Type MC cables are rated for dry, indoor locations only per NEC 330.10(A)(10)
- Type THHN/THWN rated 90ºC dry

Southwire Armorlite® Type MC Multi-Circuit 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

Copyright © 2026 Southwire Company, LLC. All Rights Reserved

- ASTM B8 Concentric-Lay-Stranded Copper Conductors
- 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
- 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 WITH X X XX AWG NEUTRAL FOR USE IN CABLE TRAYS 600 VOLTS

Copyright © 2026 Southwire Company, LLC. All Rights Reserved

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	Copper Weight	Overall Weight
	AWG/ Kcmil			inch		mils	No. x AWG	No. x AWG	inch	lbs/ 1000ft	lbs/ 1000ft
12 AWG | SOLID Strands											
555951	12	5	BK,RD,BE,WE,WE/BK,GN	0.081	SOLID	15	1x12	2x12	0.577	120	187
690057	12	6	SEE TABLE	0.081	SOLID	15	1x12	2x12	0.578	140	210
587820	12	6	BN,BN/GY,OE,OE/GY,GY,GY/BN,GN	0.081	SOLID	15	1x12	2x12	0.577	140	211
580743	12	6	BK,BK/WE,RD,RD/WE,BE,BE/WE,GN	0.081	SOLID	15	1x12		0.577	140	211
641929	12	6	BK,BK,RD,RD,BE,BE,GN	0.081	SOLID	15	1x12		0.577	140	211
563324	12	6	SEE TABLE	0.081	SOLID	15	1x12	1x12	0.577	140	211
690065	12	8	SEE TABLE	0.081	SOLID	15	1x12	2x12	0.653	180	265
596437	12	8	SEE TABLE	0.081	SOLID	15	1x12		0.661	180	266
644479	12	9	BK1,RD1,WE1,BK2,RD2,WE2,BK3,RD3,WE3	0.081	SOLID	15	1x12	3x12	0.844	201	338
586407	12	9	SEE TABLE	0.081	SOLID	15	1x12	4x12	0.709	200	294
589122	12	10	SEE TABLE	0.081	SOLID	15	1x12	4x12	0.7	220	317
690073	12	12	SEE TABLE	0.081	SOLID	15	1x12	3x12	0.81	259	401
679370	12	16	SEE TABLE	0.081	SOLID	15	1x12	6x12	0.886	339	508
12 AWG | 19 Strands											
591220	12	6	BK,RD,BE,WE,PK,PK/WE,GN	0.089	19	15	1x12	1x12	0.607	141	220
551354	12	8	BK,BK/WE,WE,WE/BK,RD,RD/WE,BE,GN,BE/ WE	0.089	19	15	1x12	2x12	0.688	181	277
551353	12	6	SEE TABLE	0.09	19	15	1x12	2x12	0.607	141	219
10 AWG | SOLID Strands											
587714	10	6	BK,RD,BE,OE,PK,PE,GN	0.102	SOLID	20	1x10		0.68	217	311
552970	10	6	SEE TABLE	0.102	SOLID	20	1x10	2x10	0.671	217	311
587191	10	6	BK,RD,BE,OE,GN,GN/YW,WE,WE/RD	0.102	SOLID	20	2x10	2x10	0.777	248	383
690081	10	8	SEE TABLE	0.102	SOLID	20	1x10	2x10	0.824	278	426
598031	10	10	SEE TABLE	0.102	SOLID	20	1x10	4x10	0.884	340	506
552986	10	12	SEE TABLE	0.102	SOLID	20	1x10	3x10	0.947	402	591
679155	10	12	RD,WT/RD,BE,WT/BE,BK/WT,WT/BK,RD/ YW,WT/YW,BE/BK,BK	0.102	SOLID	20	1x10	5x10	0.951	402	591
679161	10	16	SEE TABLE	0.102	SOLID	20	1x10	6x10	1.042	528	754
10 AWG | 19 Strands											
674430	10	6	BK,RD,BK/BE,RD/BE,WE,WE/BE,GN	0.113	19	20	1x10	2x10	0.776	226	366
679451	10	9	BK,BK,RD,RD,BE,BE,WT/BK,WT/RD,WT/BE,GN	0.113	19	20	1x10	3x10	0.945	324	505
597936	10	12	BK,BK,RD,RD,BE,BE,WT,WT,WT,WT,WT,WT,GN	0.113	19	20	1x10	6x10	1.014	421	633
677836	10	12	BK,RD,BE,WT,BK,RD,BE,WT,BK,RD,WT,WT,GN	0.113	19	20	1x10	4x10	1.014	421	633
674737	10	6	SEE TABLE	0.117	19	20	1x10	2x10	0.776	226	366
551356	10	8	SEE TABLE	0.117	19	20	1x10	2x10	0.879	291	457
640523	10	9	SEE TABLE	0.117	19	20	1x10	4x10	0.945	324	504
583642	8	8	SEE TABLE	0.143	19	30	1x8	3x8	1.049	463	696

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

Copyright © 2026 Southwire Company, LLC. All Rights Reserved

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.

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
12 AWG | SOLID Strands							
12	5	4	1.662	2.063	0.054	20	24
12	6	4	1.662	2.063	0.054	20	24
12	6	4	1.662	2.063	0.054	20	24
12	6	4	1.662	2.063	0.054	20	24
12	6	4	1.662	2.063	0.054	20	24
12	6	4	1.662	2.063	0.054	20	24
12	8	4.6	1.662	2.063	0.054	18	21
12	8	4.6	1.662	2.063	0.054	18	21
12	9	5.9	1.662	2.063	0.054	18	21
12	9	5	1.662	2.063	0.054	18	21
12	10	4.9	1.662	2.063	0.054	12	15
12	12	5.7	1.662	2.063	0.054	12	15
12	16	6.2	1.662	2.063	0.054	12	15
12 AWG | 19 Strands							
12	6	4.2	1.662	2.063	0.054	20	24
12	8	4.8	1.662	2.063	0.054	18	21
12	6	4.2	1.662	2.063	0.054	20	24
10 AWG | SOLID Strands							
10	6	4.8	1.04	1.291	0.05	28	32
10	6	4.7	1.04	1.291	0.05	28	32
10	6	5.4	1.04	1.291	0.05	28	32
10	8	5.8	1.04	1.291	0.05	24	28
10	10	6.2	1.04	1.291	0.05	18	20
10	12	6.7	1.04	1.291	0.05	18	20
10	12	6.7	1.04	1.291	0.05	18	20
10	16	7.3	1.04	1.291	0.05	18	20
10 AWG | 19 Strands							
10	6	5.4	1.04	1.291	0.05	28	32
10	9	6.6	1.04	1.291	0.05	24	28
10	12	7.1	1.04	1.291	0.05	18	20
10	12	7.1	1.04	1.291	0.05	18	20
10	6	5.4	1.04	1.291	0.05	28	32
10	8	6.2	1.04	1.291	0.05	24	28
10	9	6.6	1.04	1.291	0.05	24	28
8	8	7.3	0.653	0.81	0.052	35	38

* 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.

Copyright © 2026 Southwire Company, LLC. All Rights Reserved

Color Table - (/ means stripe RD/WE is Red with White Stripe)

Size (Strand)	Cond. Num	Stock Code	Color
12 (Solid)	5	555951	BK, RD, BE, WE, WE/BK, GN
12 (Solid)	6	690057	BK, BK/WE, WE, WE/BK, RD, RD/WE, GN
12 (Solid)	6	589122	BK, RD, BE, BK/WE, RD/WE, BE/WE, WE, WE/BK, WE/RD, WE/BE, GN
12 (Solid)	6	563324	BK, BK/WE, RD, RD/WE, BE, WE, GN
12 (Solid)	8	690065	BK, BK/WE, WE, WE/BK, RD, RD/WE, BE, BE/WE, GN
12 (Solid)	8	596437	BK, RD, BE, BK/WE, RD/WE, BE/WE, RD/BK, BK/RD, GN
12 (Solid)	9	586407	OE, GY/OE, BK, WE/BK, RD, WE/RD, BE, BK/WE, GN, WE
12 (Solid)	12	690073	BK, BK/WE, BK/RD, RD, RD/WE, RD/BK, BE, BE/WE, BE/RD, WE, WE/BK, WE/RD, GN
12 (Solid)	16	679370	BK, RD, BK/RD, RD/BK, BE/RD, BK 1, BK 2, BK/WE, RD/WE, BE/WE, WE/BK, WE/BE, WE/RD, WE, WE 1, WE 2, GN
12 (19)	4	551353	BK, BK/WE, WE, WE/BK, RD, GN, RD/WE
10 (Solid)	6	552970	BK, RD, BK/WE, RD/WE, WE, WE/BK, GN
10 (Solid)	6	690081	BK, BK/WE, WE, WE/BK, RD, RD/WE, BE, BE/WE, GN
10 (Solid)	6	587714	BK, RD, BE, OE, PK, PE, GN
10 (Solid)	10	598031	BK, RD, BE, BK/WE, RD/WE, BE/WE, WE, WE/BK, WE/RD, WE/BE, GN
10 (Solid)	12	552986	BK, BK/WE, BK/RD, WE, WE/BK, WE/RD, RD, RD/WE, RD/BE, BE, BE/WE, BE/RD, GN
10 (Solid)	16	679161	BK, WE, RD, WE/RD, BE, WE/BE, BK/WE, WE/BK, RD/YW, WE/YW, BE/OE, WE/OE, PE, PE/WE, PK, PK/WE, GN
10 (19)	4	674737	BK, BK/WE, RD, RD/WE, WE, WE/BK, GN
10 (19)	5	640523	BK, RD, BE, OE, YW, WE/BK, WE/RD, WE/OE, WE/YW, GN
10 (19)	8	551356	BK, BK/WE, WE, WE/BK, RD, RD/WE, BE, GN, BE/WE
8 (19)	8	583642	BK, BK/WE, RD, RD/WE, BE, WE, WE/BK, WE/RD, GN

Copyright © 2026 Southwire Company, LLC. All Rights Reserved