Duraclad® Type MC THHN/THWN Circuit Size Copper Conductor 277/480V Colors Dashed-Blue Armor

Copper THHN/THWN Insulated Singles. Green Insulated Copper Grounding Conductor. UL Listed. 600 Volts. Rated VW-1. Lightweight Steel Dashed-Blue Interlocked Armor.

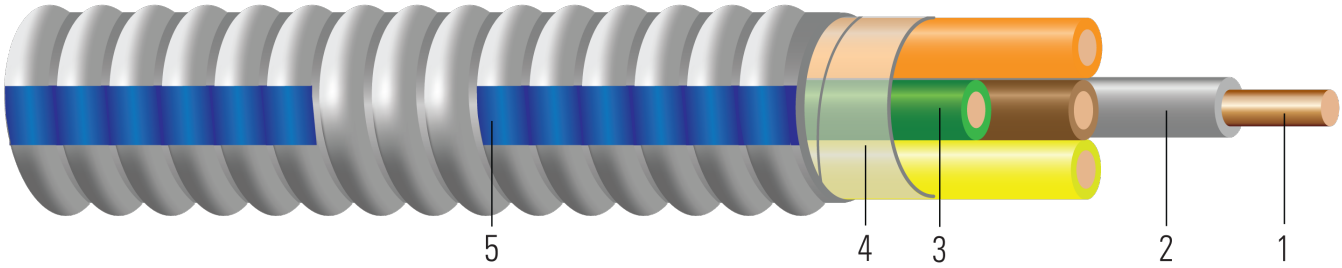

Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

1. **Conductor:** Solid bare copper per ASTM B3
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:** Lightweight Steel Dashed-Blue Interlocked Armor

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 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
- UL 1569 Metal-Clad Cables

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UPDATED: Sept. 17, 2025, 2:50 p.m.UTC REVISION: 1.000.005

- 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

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
12 AWG | SOLID Strands										
571098	12	2	BN,GY	0.081	SOLID	15	1x12	0.484	60	154
571923	12	2	OE,GY	0.081	SOLID	15	1x12	0.484	60	154
571105	12	2	YW,GY	0.081	SOLID	15	1x12	0.484	60	154
571108	12	2	PE,GY	0.081	SOLID	15	1x12	0.484	60	154
592572	12	3	YW,YW,GY	0.081	SOLID	15	1x12	0.518	80	97
592571	12	3	BN,BN,GY	0.081	SOLID	15	1x12	0.518	80	97
592570	12	3	PE,PE,GY	0.081	SOLID	15	1x12	0.518	80	97
592338	12	3	OE,PE,GY	0.081	SOLID	15	1x12	0.514	80	97
571119	12	3	YW,PE,GY	0.081	SOLID	15	1x12	0.514	80	181
571118	12	3	BN,PE,GY	0.081	SOLID	15	1x12	0.515	80	181
592339	12	3	OE,YW,GY	0.081	SOLID	15	1x12	0.514	80	97
571112	12	3	BN,OE,GY	0.081	SOLID	15	1x12	0.515	80	184
571113	12	3	BN,YW,GY	0.081	SOLID	15	1x12	0.515	80	184
571149	12	4	BN,YW,PE,GY	0.081	SOLID	15	1x12	0.55	100	213
571914	12	4	BN,OE,YW,GY	0.081	SOLID	15	1x12	0.55	100	213
10 AWG | SOLID Strands										
571921	10	2	PE,GY	0.102	SOLID	20	1x10	0.55	93	205
571917	10	2	OE,GY	0.102	SOLID	20	1x10	0.55	93	112
571152	10	2	YW,GY	0.102	SOLID	20	1x10	0.55	93	205
571151	10	2	BN,GY	0.102	SOLID	20	1x10	0.55	93	205
592568	10	3	PK,PK,GY	0.102	SOLID	20	1x10	0.59	124	149
571161	10	4	BN,YW,PE,GY	0.102	SOLID	20	1x10	0.634	155	297

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.

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
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	3.4	1.662	2.063	0.054	25	30
12	2	3.4	1.662	2.063	0.054	25	30
12	3	3.6	1.662	2.063	0.054	25	30
12	3	3.6	1.662	2.063	0.054	25	30
12	3	3.6	1.662	2.063	0.054	25	30
12	3	3.6	1.662	2.063	0.054	25	30
12	3	3.6	1.662	2.063	0.054	25	30
12	3	3.6	1.662	2.063	0.054	25	30
12	3	3.6	1.662	2.063	0.054	25	30
12	3	3.6	1.662	2.063	0.054	25	30
12	3	3.6	1.662	2.063	0.054	25	30
12	4	3.9	1.662	2.063	0.054	20	24
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	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	4.4	1.04	1.291	0.05	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.

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