

# Armorlite® Type MC THHN/THWN Circuit Size Copper Conductor PVC Jacketed 277/480V Colors. Silicone Free

Copper THHN/THWN Insulated Singles. Green Insulated Copper Grounding Conductor. UL Listed. 600 Volts Rated VW-1. Lightweight Aluminum Interlocked Armor. PVC Jacketed, Sunlight Resistant and Direct Burial

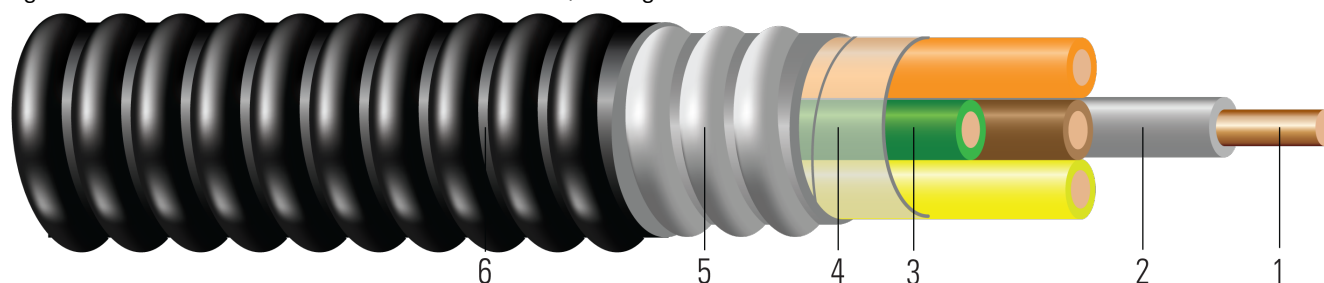


Image not to scale. See Table 1 for dimensions.

## 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
5. **Armor:** Aluminum Interlocked Armor
6. **Jacket:** Polyvinyl Chloride (PVC) Jacket, sunlight resistant, corrosion resistant.

## 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.
- Where exposed to cinder fills, strong chlorides, caustic alkalis, or vapors of chlorine or of hydrochloric acids.
- Fished or embedded in plaster.
- Concealed or exposed installations.
- Suitable for Wet Location per NEC 330.10(A)(11)
- Places of Assembly per NEC 518.4 and theaters per NEC 520.5.
- Installation in cable tray and approved raceways, or as aerial cable on a messenger.
- 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.
- Type THHN/THWN rated 90°C Dry/ 75°C Wet
- Anti-Short busing 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](http://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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Southwire

**CABLETECH  
SUPPORT™**

Services

- 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
- REACH/RoHS-2 (Chemical Limit) Compliant
- 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:

{SQFTG} SOUTHWIRE MASTER-DESIGN {UL} E96627 X/C X AWG CU THHN OR THWN CDRS 600 VOLTS GG 1 X X AWG CU TYPE MC EZ-JKT FOR CT USE SUN. RES. DIRECT BURIAL 90{D}C

**Table 1 – Weights and Measurements**

Stock Number	Cond. Size	Conductor Number	Color	Diameter Over Conductor	Conductor Stranding	Insulation Thickness	Ground Size	Diameter Over Armor	Jacket Thickness	Approx. OD	Overall Weight
	AWG/ Kcmil			inch		mils	No. x AWG	inch	mil	inch	lbs/1000ft
552561◇	12	2	BN/GY	0.080	Solid	20	1x12	0.487	50	0.593	175
553377◇	12	2	OE/GY	0.080	Solid	20	1x12	0.487	50	0.593	175
553378◇	12	2	YW/GY	0.080	Solid	20	1x12	0.487	50	0.593	175
553379◇	12	3	BN/YW/ GY	0.080	Solid	20	1x12	0.518	50	0.624	207
552563◇	12	3	BN/OE/ GY	0.080	Solid	20	1x12	0.518	50	0.624	207
552564◇	12	4	BN/OE/ YW/GY	0.080	Solid	20	1x12	0.553	50	0.659	240
553373◇	10	2	OE/GY	0.101	Solid	25	1x10	0.554	50	0.660	232
553976◇	10	2	BN/GY	0.101	Solid	25	1x10	0.554	50	0.660	232
553375◇	10	3	BN/YW/ GY	0.101	Solid	25	1x10	0.579	50	0.679	264
552954◇	10	3	BN/OE/ GY	0.101	Solid	25	1x10	0.593	50	0.699	277
553381◇	10	4	BN/OE/ YW/GY	0.101	Solid	25	1x10	0.637	50	0.743	324
585609◇	10	2	YW/GY	0.117	19	25	1x10	0.587	50	0.693	248
585606◇	10	2	OE/GY	0.117	19	25	1x10	0.587	50	0.693	248

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.



**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	4.1	1.662	2.002	0.030	20	25	30
12	2	4.1	1.662	2.002	0.030	20	25	30
12	2	4.1	1.662	2.002	0.030	20	25	30
12	3	4.3	1.662	2.002	0.030	20	25	30
12	3	4.3	1.662	2.002	0.030	20	25	30
12	4	4.6	1.662	2.002	0.038	16	20	24
10	2	4.6	1.040	1.253	0.030	30	35	40
10	2	4.6	1.040	1.253	0.030	30	35	40
10	3	4.7	1.040	1.253	0.030	30	35	40
10	3	4.8	1.040	1.253	0.030	30	35	40
10	4	5.2	1.040	1.253	0.038	24	28	32
10	2	4.8	1.040	1.253	0.029	30	35	40
10	2	4.8	1.040	1.253	0.029	30	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.

