



# MC-PCS Duo™ Power & Control/Signal Cable 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 Interlocked Armor. Signal: 16 AWG Copper TFN insulated singles. PVC Jacketed

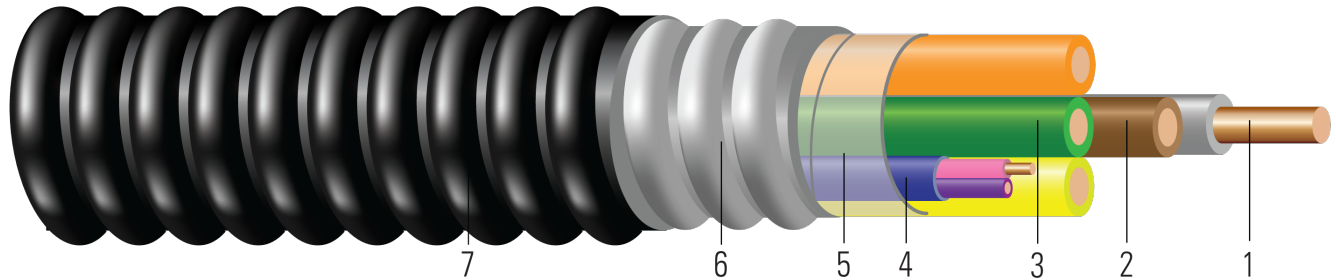


Image not to scale. See Table 1 for dimensions.

## CONSTRUCTION:

1. **Conductor:** Solid or stranded copper per ASTM B3 and per 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. **Signal:** 16 AWG Copper TFN Insulated Singles Pink, Purple. Overall light blue jacket over the signal cables
5. **Binder:** Mylar tape
6. **Armor:** Lightweight Interlocked Armor
7. **Jacket:** Polyvinyl Chloride (PVC) sunlight resistant, and 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)
- Power, lighting, control, and signal circuits.
- 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 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](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
- 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.
- VW-1 (Vertical-Wire) Flame Test

**SAMPLE PRINT LEGEND:**

SOUTHWIRE {UL} E96627 X/C AWG XX CU THHN OR THWN CDRS 600 VOLTS GW AND 2/C AWG 16 CU TFN TWST PR PVC AIA TYPE MC-PCS EZ-JKT FOR CT USE SUN. RES. 90 DEGREES C {MMM/DD/YYYY} {SEQUENTIAL FOOTAGE MARKS} SEQ FEET

**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	Copper Weight	Overall Weight
	AWG/ Kcmil			inch		mils	No. x AWG	inch	mil	inch	lbs/ 1000ft	lbs/ 1000ft
12 AWG   Solid												
596184◇	12	2	BN,GY	0.080	Solid	20	1x12	0.612	50	0.718	75	240
596185◇	12	2	OE,GY	0.080	Solid	20	1x12	0.612	50	0.718	75	240
596186◇	12	2	YEL,GY	0.080	Solid	20	1x12	0.612	50	0.718	75	240
596188◇	12	3	BN,OE,GY	0.080	Solid	20	1x12	0.654	50	0.760	95	275
10 AWG   Solid												
596190◇	10	2	BN,GY	0.101	Solid	25	1x10	0.671	50	0.777	108	294
12 AWG   19 Strands												
596192◇	12	2	BN,GY	0.090	19	20	1x12	0.631	50	0.737	76	247
596353◇	12	3	BN,OE,GY	0.090	19	20	1x12	0.677	50	0.777	96	271

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.





**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							
12	2	5.0	1.662	2.002	0.054	25	30
12	2	5.0	1.662	2.002	0.054	25	30
12	2	5.0	1.662	2.002	0.054	25	30
12	3	5.3	1.662	2.002	0.054	25	30
10 AWG   Solid							
10	2	5.4	1.040	1.253	0.050	35	40
12 AWG   19 Strands							
12	2	5.2	1.662	2.002	0.054	25	30
12	3	5.4	1.662	2.002	0.054	25	30

\* 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.

