MC-PCS Duo™ Power & Control/Signal Cable PVC Jacketed 120/208V 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.

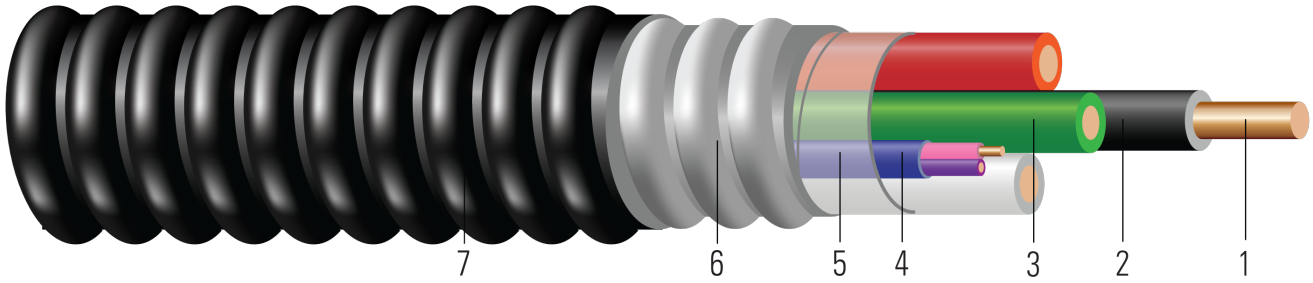

Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

1. **Conductor:** Solid or Class C 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. **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) Jacket, sunlight resistant, corrosion resistant

APPLICATIONS AND FEATURES:

Jacketed MC-PCS Duo™ Power & Control/Signal Type MC Cable is suitable for use as follows:

- Branch, feeder 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.
- LED lighting with 0-10 V dimming
- 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 Aritcle 645
- Class I Div. 2, Class II Div 2, & Class III Div. 1 Hazardous Locations.
- Type THHN/THWN rated 90ºC Dry/ 75ºC Wet
- Anti-Short bushing not required

Southwire MC PCS Duo™ 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

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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.

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 Strands												
596181	12	2	BK,WE	0.081	SOLID	15	1x12	0.611	50	0.717	76	240
596182	12	2	RD,WE	0.081	SOLID	15	1x12	0.611	50	0.717	76	222
596183	12	2	BE,WE	0.081	SOLID	15	1x12	0.611	50	0.717	76	222
596187	12	3	BK,RD,WE	0.081	SOLID	15	1x12	0.653	50	0.759	96	275
10 AWG | SOLID Strands												
596189	10	2	BK,WE	0.102	SOLID	20	1x10	0.67	50	0.776	109	290
12 AWG | 19 Strands												
596191	12	2	BK,WE	0.09	19	15	1x12	0.63	50	0.736	76	244
596351	12	3	BK,RD,WE	0.09	19	15	1x12	0.677	50	0.783	96	262
10 AWG | 19 Strands												
677557	10	3	BK,BE,WE	0.117	19	20	1x10	0.811	50	0.917	145	375
677561	10	3	BK,RD,WE	0.117	19	20	1x10	0.811	50	0.917	145	375

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 75°C	Allowable Ampacity Raceway 90°C
AWG/ Kcmil		Inches	Ω/1000ft	Ω/1000ft	Ω/1000ft	Amp	Amp
12 AWG | SOLID Strands							
12	2	5	1.662	2.063	0.054	25	30
12	2	5	1.662	2.063	0.054	25	30
12	2	5	1.662	2.063	0.054	25	30
12	3	5.3	1.662	2.063	0.054	25	30
10 AWG | SOLID Strands							
10	2	5.4	1.04	1.291	0.05	35	40
12 AWG | 19 Strands							
12	2	5.2	1.662	2.063	0.054	25	30
12	3	5.5	1.662	2.063	0.054	25	30
10 AWG | 19 Strands							
10	3	6.4	1.04	1.291	0.05	35	40
10	3	6.4	1.04	1.291	0.05	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.

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