MC-PCS HCF Duo™ Power & Control/Signal Cable 277/480V Colors

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.

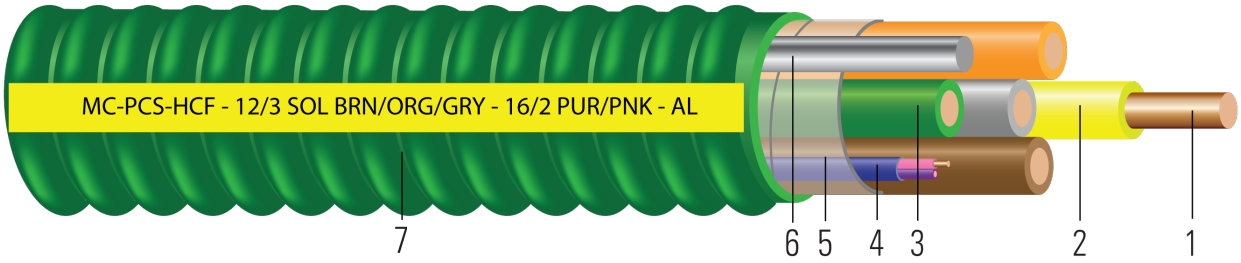


Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

1. **Conductor:** Solid 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. **Signal:** 16 AWG copper Type TFN insulated singles (pink and purple). Overall light blue jacket over the signal cables
5. **Binder:** Mylar tape
6. **Ground:** Full-sized bare 8000 series aluminum grounding/bonding conductor per ASTM B800. Armor and bare aluminum conductor form the equipment ground path
7. **Armor:** Aluminum Interlocked Armor

APPLICATIONS AND FEATURES:

Southwire MC-PCS HCF Duo™ Type MC All Purpose Hospital Care Facility Cable is suitable for use as follows:

- Branch-circuit wiring for patient care areas of hospitals, medical centers, and other health care facilities (when installed in accordance with NEC® Articles 517 and 330, and mechanically protected per Article 300.4). Such areas include nursing homes, dental offices, clinics, and outpatient facilities. Use in hazardous anesthetizing areas is prohibited
- Applications requiring redundant, dedicated or isolated grounding paths
- 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
- Power, lighting, control, and signal circuits
- 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
- Use with UL Listed MCI-A fittings
- Binder tape with print legend wrapped around assembly
- Type THHN/THWN rated 90°C dry
- Unjacketed Type MC cables are rated for dry, indoor locations only per NEC 330.10(A)(10)

Southwire MC-PCS HCF 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)

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- 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
- ASTM B800 8000 Series Aluminum Alloy Wire
- 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:

ALUMINUM CLAD CABLE WITH COPPER CDRS TYPE THHN OR THWN MAX VOLTAGE 600V, FOR USE IN CABLE TRAY90(D)C - WET OR DRY LOCATIONS GASOLINE & OIL RESISTANT CDRS LISTED FOR FIREWALL PENTRATION (GREEN INSULATED GROUND)

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										
598129	12	2	BN,GY	0.081	SOLID	15	1x10	0.632	76	165
597661	12	2	OE,GY	0.081	SOLID	15	1x10	0.635	76	166
597663	12	2	YW,GY	0.081	SOLID	15	1x10	0.635	76	166
12 AWG | 19 Strands										
597675	12	2	BN,GY	0.081	19	15	1x10	0.654	76	171
12 AWG | SOLID Strands										
597667	12	3	BN,OE,GY	0.081	SOLID	15	1x10	0.677	96	194
12 AWG | 19 Strands										
597679	12	3	BN,OE,GY	0.081	19	15	1x10	0.7	96	200
641094	12	2	OE,GY,GN,LBE	0.089	19	15	1x10	0.647	76	170
641096	12	2	YW,GY,GN,LBE	0.089	19	15	1x10	0.647	76	170
10 AWG | SOLID Strands										
597671	10	2	BN,GY	0.102	SOLID	20	1x8	0.7	109	217

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	4.4	1.662	2.063	0.054	25	30
12	2	4.4	1.662	2.063	0.054	25	30
12	2	4.4	1.662	2.063	0.054	25	30
12 AWG | 19 Strands							
12	2	4.6	1.662	2.063	0.054	25	30
12 AWG | SOLID Strands							
12	3	4.7	1.662	2.063	0.054	25	30
12 AWG | 19 Strands							
12	3	4.9	1.662	2.063	0.054	25	30
12	2	4.5	1.662	2.063	0.054	25	30
12	2	4.5	1.662	2.063	0.054	25	30
10 AWG | SOLID Strands							
10	2	4.9	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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