MC-PCS HCF Duo™

Power & Control/Signal Cable for Healthcare Facilities

Copper Power & Control/Signal Conductors. THHN/THWN & TFN Insulated Singles. Green Insulated Grounding Conductor. Full-Sized Bare Aluminum Equipment Grounding/Bonding Conductor. Power: 12 AWG & 10 AWG THHN. Signal: 16 AWG TFN. UL Listed. 600 Volts. Rated VW-1. Rated 90ºC Dry Locations. Lightweight Aluminum Interlocked Armor is part of redundant equipment bonding/grounding path. Southwire® MC-PCS HCF Duo™ Cable meets the NEC and UL listing requirements for combining power/lighting circuits and Class 2 or Class 3 signal or control circuits in the same cable.

APPLICATIONS

MC-PCS HCF Duo™ 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.
- Power, lighting, control, and signal circuits requiring redundant, dedicated, or isolated grounding paths.
- LED lighting with 0-10V dimming
- 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).
- Use with UL Listed MCI-A fittings.
- Class I Div. 2, Class II Div. 2, & Class III Div. 1 Hazardous Locations.

STANDARDS & REFERENCES

MC-PCS HCF Duo™ Cable meets or exceeds the requirements of:

- UL 83
- UL 1569 (Including new Sections 9.4, 40.1(q), and 41.1(r) as detailed in the latest UL 1569 CRD)
- UL 1685
- Federal Specification A-A59544 (formerly J-C-30B)
- National Electrical Code (NFPA 70), Article 330 and 725.136(I)(1) & (2) as described in the latest UL 1569 CRD)
- Listed for use in UL 1, 2 and 3 Hour Through Penetration Firestop Systems
- Passes both " UL Test" & "FT4/IEEE 1202" (70,000 Btu/hr) Vertical Cable Tray Flame Test
- REACH/RoHS-2 (Chemical Limit) Compliant

CONSTRUCTION

The power conductors, insulated green ground, and signal conductor assembly are cabled together and a binder tape bearing the print legend is wrapped around the cabled assembly. A bare aluminum grounding/bonding conductor is located outside the binder tape, has the same lay as the insulated conductors, and maintains intimate contact with the overall armor. Green aluminum interlocking armor is applied over the cabled assembly. Yellow stripe/blocks are printed on the outside of the armor and circuit identifying print is applied on every fourth yellow stripe/block. The cable is also available with steel armor or with an overall PVC jacket.

The Power of Connections. ™

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CONDUCTOR SIZE AND COLORS	GROUNDING SIZE		STOCK NUMBER		WEIGHT (LBS/1000')	OVERALL DIAMETER (INCHES)
	INSULATED GROUND	BONDING GROUND	COIL (250')	REEL (1000')		
SOLID CONDUCTOR COLORS 120/208V						
12-2 SOLID (BLACK/WHITE) 16-2 SOLID (PURPLE/PINK)	12 SOLID (GREEN)	10 SOLID ALUMINUM	59-81-27-01	59-81-27-02	172	.58
12-2 SOLID (RED/WHITE) 16-2 SOLID (PURPLE/PINK)	12 SOLID (GREEN)	10 SOLID ALUMINUM	59-76-57-01	59-76-57-02	172	.58
12-2 SOLID (BLUE/WHITE) 16-2 SOLID (PURPLE/PINK)	12 SOLID (GREEN)	10 SOLID ALUMINUM	59-76-59-01	59-76-59-02	172	.58
12-3 SOLID (BLACK/RED/WHITE) 16-2 SOLID (PURPLE/PINK)	12 SOLID (GREEN)	10 SOLID ALUMINUM	59-76-65-01	59-76-65-02	199	.62
10-2 SOLID (BLACK/WHITE) 16-2 SOLID (PURPLE/PINK)	10 SOLID (GREEN)	8 SOLID ALUMINUM	59-76-69-01	59-76-69-02	224	.64
STRANDED CONDUCTOR COLORS 120/208V						
12-2 STRANDED (BLACK/WHITE) 16-2 SOLID (PURPLE/PINK)	12 STRANDED (GREEN)	10 SOLID ALUMINUM	59-76-73-01	59-76-73-02	178	.59
12-3 STRANDED (BLACK/RED/WHITE) 16-2 SOLID (PURPLE/PINK)	12 STRANDED (GREEN)	10 SOLID ALUMINUM	59-76-77-01	59-76-77-02	208	.64
SOLID CONDUCTOR COLORS 277/480V						
12-2 SOLID (BROWN/GRAY) 16-2 SOLID (PURPLE/PINK)	12 SOLID (GREEN)	10 SOLID ALUMINUM	59-81-29-01	59-81-29-02	172	.58
12-2 SOLID (ORANGE/GRAY) 16-2 SOLID (PURPLE/PINK)	12 SOLID (GREEN)	10 SOLID ALUMINUM	59-76-61-01	59-76-61-02	172	.58
12-2 SOLID (YELLOW/GRAY) 16-2 SOLID (PURPLE/PINK)	12 SOLID (GREEN)	10 SOLID ALUMINUM	59-76-63-01	59-76-63-02	172	.58
12-3 SOLID (BROWN/ORANGE/GRAY) 16-2 SOLID (PURPLE/PINK)	12 SOLID (GREEN)	10 SOLID ALUMINUM	59-76-67-01	59-76-67-02	199	.62
10-2 SOLID (BROWN/GRAY) 16-2 SOLID (PURPLE/PINK)	10 SOLID (GREEN)	8 SOLID ALUMINUM	59-76-71-01	59-76-71-02	224	.64
STRANDED CONDUCTOR COLORS 277-480V						
12-2 STRANDED (BROWN/GRAY) 16-2 SOLID (PURPLE/PINK)	12 STRANDED (GREEN)	10 SOLID ALUMINUM	59-76-75-01	59-76-75-02	178	.59
12-3 STRANDED (BROWN/ORANGE/GRAY) 16-2 SOLID (PURPLE/PINK)	12 STRANDED (GREEN)	10 SOLID ALUMINUM	59-76-79-01	59-76-79-02	208	.64
Consult NEC 310.15 for ampacities Other color combinations available upon request.						

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FEATURES

- Full compliance with NEC 330, NEC 725, and UL 1569
- Meets UL Product Category PJAZ (Metal-Clad Cable) and provides redundant equipment grounding conductors (as defined in NEC® 250.118) as required in NEC® 517.13(A) & (B).
- Installation instructions included with every reel and coil
- Circuit identification printed directly on the armor
- Simplified armored product application and installation
- Armor ground path is approximately 3.5 times better than Type AC HCF Cable and is equivalent to a green insulated copper grounding conductor.
- Available in 250’ coils, 1000’ reels, barrels, boxes, or prefab assemblies
- Available with steel armor
- Available with overall PVC jacket
- Available in neutral-per-phase and multi-circuit configurations
- UL Classified 1, 2, and 3 hour Through Penetration Firestop Systems: W-J-3037, W-L-3110, W-L-3113, W-L-3117,W-L-3120, W-L-3121, W-L-3160, C-AJ-3115, C-AJ-3140, C-AJ-3142, C-AJ-3145, C-AJ-3173, C-AJ-3202, C-AJ-4065,C-AJ-4066, F-C-3038.
- Cable reverse wound on reel for ease of pulling and installation. When pulling from coils, pull from inside to ensure ease of installation.
- Anti-short bushings are not required for use with Type MC Cable per the NEC and UL.

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NEC TABLE 310.15(B)(16)- ALLOWABLE AMPACITY FOR 600V CONDUCTORS

	TEMPERATURE RATING OF CONDUCTOR		
	60°C (140°F)	75°C (167°F)	90°C (194°F)
SIZE AWG OR KCMIL	Types: TW, UF	Types: RHW, THHW, THW, THWN, XHHW, USE, ZW	Types: TBS, SA, SIS, RHH, RHW-2, THHN, THHW, THW-2, THWN-2, USE-2, XHH, XHHW, XHHW-2, ZW-2
	COPPER		
18	-	-	14
16	-	-	18
14	15	20	25
12	20	25	30
10	30	35	40
8	40	50	55
6	55	65	75
4	70	85	95
3	85	100	115
2	95	115	130
1	110	130	145
1/0	125	150	170
2/0	145	175	195
3/0	165	200	225
4/0	195	230	260
250	215	255	290
300	240	285	320
350	260	310	350
400	280	335	380
500	320	380	430
600	350	420	475
700	385	460	520
750	400	475	535
800	410	490	555
900	435	520	585
1000	455	545	615
1250	495	590	665
1500	525	625	705
1750	545	650	735
2000	555	665	750
Per NEC 310.15(B)(5), the ampacity of 4/C cables shall be reduced by a factor of 0.80 when the neutral is considered a current-carrying conductor.			

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