Duraclad HCF MC^{AP}

Type MC All Purpose Health Care Facility

14 AWG through 8 AWG Copper THHN Insulated Conductors and Green Insulated Ground Conductor. Full-Sized Aluminum Equipment Grounding/Bonding Conductor. UL Listed. 600 Volts. Rated VW-1. Galvanized Green Steel Interlocked Armor is Part of Equipment Bonding/Grounding Path.

APPLICATIONS

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.
- Environmental air-handling spaces per NEC® 300.22(C)
- Fished or embedded in plaster.
- 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.

STANDARDS & REFERENCES

Southwire Duraclad HCF MC^{AP} Type MC Cable fully meets or exceeds the following requirements:

- UL 83, 1569 and 1063
- NFPA 70 (National Electrical Code), Article 330
- Federal Specification A-A59544 (formerly J-C-30B)
- UL Online Product Guide Info - Metal-Clad Cable (PJAZ) (www.ul.com)
- IEEE 1202 (70,000 Btu/hr) Vertical Cable Tray Flame Test
- Listed for use in UL 1, 2, and 3 Hour Through-Penetration Firestop Systems
- REACH/RoHS-2 (Chemical Limit) Compliant

CONSTRUCTION

Southwire Duraclad HCF MC^{AP} Type MC Cable is constructed with solid soft-drawn copper Type THHN circuit conductors (rated 90ºC dry), redundant grounding provided by an armor assembly comprised of interlocked armor with a bare aluminum grounding/ bonding conductor, and a green insulated copper grounding conductor. The insulated circuit and grounding conductors are cabled together and wrapped with a binder tape bearing the print legend. The bare aluminum grounding/bonding conductor is located outside the binding tape and has the same lay as the insulated conductors. Galvanized green steel interlocked armor is snugly wrapped around the conductor assembly. To insure proper cable termination, refer to the installation instructions provided with every reel and coil.

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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)	12 SOLID (GREEN)	10 SOLID ALUMINUM	58-23-25-01	58-23-25-02	170	..447
12-3 SOLID (BLACK/WHITE/RED)	12 SOLID (GREEN)	10 SOLID ALUMINUM	58-23-26-01	58-23-26-02	201	.481
12-4 SOLID (BLACK/WHITE/RED/BLUE)	12 SOLID (GREEN)	10 SOLID ALUMINUM	58-23-29-01	58-23-29-02	233	.516
10-2 SOLID (BLACK/WHITE)	10 SOLID (GREEN)	8 SOLID ALUMINUM	58-23-31-01	58-23-31-02	234	.522
10-3 SOLID (BLACK/WHITE/RED)	10 SOLID (GREEN)	8 SOLID ALUMINUM	58-23-34-01	58-23-34-02	294	.625
STRANDED CONDUCTOR COLORS 120/208V						
12-2 STRANDED (BLACK/WHITE)	12 STRANDED (GREEN)	10 SOLID ALUMINUM	58-23-27-01	58-23-27-02	180	.469
12-3 STRANDED (BLACK/WHITE/RED)	12 STRANDED (GREEN)	10 SOLID ALUMINUM	58-23-35-01	58-23-27-02	213	.506
STRANDED CONDUCTOR COLORS 277/480V						
12-2 STRANDED (BROWN/GRAY)	12 STRANDED (GREEN)	10 SOLID ALUMINUM	58-23-28-01	58-23-28-02	170	.447
12-2 STRANDED (ORANGE/GRAY)	12 STRANDED (GREEN)	10 SOLID ALUMINUM	58-23-30-01	58-23-30-02	170	.447
12-2 STRANDED (YELLOW/GRAY)	12 STRANDED (GREEN)	10 SOLID ALUMINUM	58-23-20-01	58-23-20-02	170	.447
12-3 STRANDED (BROWN/ORANGE/GRAY)	12 STRANDED (GREEN)	10 SOLID ALUMINUM	58-23-36-01	58-23-36-02	201	.481
For allowble ampacities, refer to NEC 310.15						

FEATURES

- 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.
- Simplified armored product application and installation.
- Reduces installation costs up to 50% over pipe and wire.
- Increased labor savings compared to Type AC HCF.
- Easy to identify green armor.
- 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.
- Armor ground path is approximately 3.5 times better than Type AC HCF Cable and is equivalent to a green insulated copper grounding conductor.

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.			