

# HCF MC<sup>AP</sup>®

## Type MC All Purpose Hospital Care Facility



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

### APPLICATIONS

Southwire HCF MC<sup>AP</sup>® Type MC 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.
- 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.

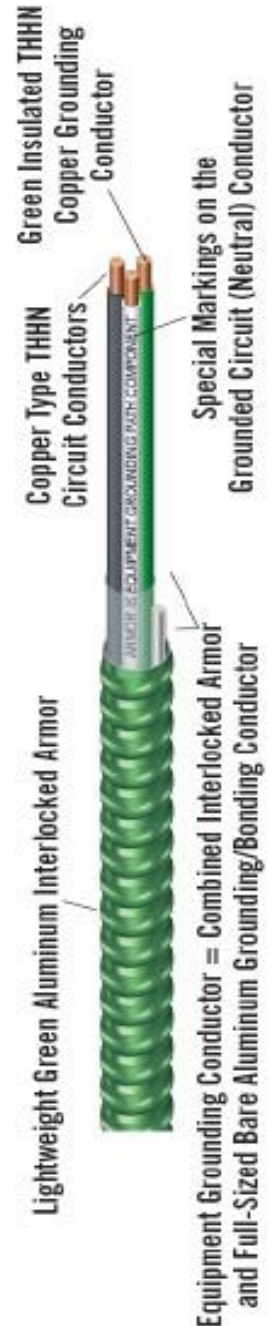
### STANDARDS & REFERENCES

Southwire HCF MC<sup>AP</sup>® Type MC Cable fully meets or exceeds the following requirements:

- UL 83, 1569 and 1063
- UL Online Product Guide Info - Metal-Clad Cable (PJAZ) ( www.ul.com )
- NFPA 70 (National Electrical Code), Article 330
- Federal Specification A-A59544 (formerly J-C-30B)
- 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 HCF MC<sup>AP</sup>® Type MC Cable is constructed with solid soft-drawn copper Type THHN circuit conductors (rated 90°C 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. Green Aluminum 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<br>(LBS/1000') | OVERALL<br>DIAMETER<br>(INCHES) |
|---|------------------------|----------------------|----------------|-----------------|-----------------------|---------------------------------|
|   | INSULATED<br>GROUND    | BONDING<br>GROUND    | COIL<br>(250') | REEL<br>(1000') |                       |                                 |
| <b>SOLID CONDUCTOR COLORS 120/208V</b>    |                        |                      |                |                 |                       |                                 |
| 14-2 SOLID<br>(BLACK/WHITE)               | 14 SOLID<br>(GREEN)    | 12 SOLID<br>ALUMINUM | 56-03-89-01    | 56-03-89-02     | 96                    | .406                            |
| 14-3 SOLID<br>(BLACK/WHITE/RED)           | 14 SOLID<br>(GREEN)    | 12 SOLID<br>ALUMINUM | 56-03-92-01    | 56-03-92-02     | 115                   | .436                            |
| 14-4 SOLID<br>(BLACK/WHITE/RED/BLUE)      | 14 SOLID<br>(GREEN)    | 12 SOLID<br>ALUMINUM | 56-03-94-01    | 56-03-94-02     | 134                   | .466                            |
| 12-2 SOLID<br>(BLACK/WHITE)               | 12 SOLID<br>(GREEN)    | 10 SOLID<br>ALUMINUM | 55-52-79-01    | 55-52-79-02     | 111                   | .45                             |
| 12-2 SOLID<br>(RED/WHITE)                 | 12 SOLID<br>(GREEN)    | 10 SOLID<br>ALUMINUM | 55-93-20-01    | 55-93-20-02     | 111                   | .45                             |
| 12-2 SOLID<br>(BLUE/WHITE)                | 12 SOLID<br>(GREEN)    | 10 SOLID<br>ALUMINUM | 55-93-22-01    | 55-93-22-02     | 111                   | .45                             |
| 12-3 SOLID<br>(BLACK/WHITE/RED)           | 12 SOLID<br>(GREEN)    | 10 SOLID<br>ALUMINUM | 55-52-80-01    | 55-52-80-02     | 155                   | .480                            |
| 12-4 SOLID<br>(BLACK/WHITE/RED/BLUE)      | 12 SOLID<br>(GREEN)    | 10 SOLID<br>ALUMINUM | 55-52-81-01    | 55-52-81-02     | 183                   | .515                            |
| 10-2 SOLID<br>(BLACK/WHITE)               | 10 SOLID<br>(GREEN)    | 8 SOLID<br>ALUMINUM  | 55-52-82-01    | 55-52-82-02     | 184                   | .52                             |
| 10-2 SOLID<br>(RED/WHITE)                 | 10 SOLID<br>(GREEN)    | 8 SOLID<br>ALUMINUM  | 56-08-36-01    | 56-08-36-02     | 184                   | .52                             |
| 10-2 SOLID<br>(BLUE/WHITE)                | 10 SOLID<br>(GREEN)    | 8 SOLID<br>ALUMINUM  | 56-08-38-01    | 56-08-38-02     | 184                   | .52                             |
| 10-3 SOLID<br>(BLACK/WHITE/RED)           | 10 SOLID<br>(GREEN)    | 8 SOLID<br>ALUMINUM  | 55-52-83-01    | 55-52-83-02     | 203                   | .565                            |
| 10-4 SOLID<br>(BLACK/WHITE/RED/BLUE)      | 10 SOLID<br>(GREEN)    | 8 SOLID<br>ALUMINUM  | 55-52-85-01    | 55-52-85-02     | 278                   | .670                            |
| <b>STRANDED CONDUCTOR COLORS 120/208V</b> |                        |                      |                |                 |                       |                                 |
| 12-2 STRANDED<br>(BLACK/WHITE)            | 12 STRANDED<br>(GREEN) | 10 SOLID<br>ALUMINUM | 55-63-61-01    | 55-63-61-02     | 116                   | .468                            |
| 12-2 STRANDED<br>(RED/WHITE)              | 12 STRANDED<br>(GREEN) | 10 SOLID<br>ALUMINUM | 55-87-22-01    |                 | 116                   | .468                            |
| 12-2 STRANDED<br>(BLUE/WHITE)             | 12 STRANDED<br>(GREEN) | 10 SOLID<br>ALUMINUM | 55-87-20-01    |                 | 116                   | .468                            |
| 12-3 STRANDED<br>(BLACK/WHITE/RED)        | 12 STRANDED<br>(GREEN) | 10 SOLID<br>ALUMINUM | 55-63-63-01    | 55-63-63-02     | 165                   | .51                             |
| 12-4 STRANDED<br>(BLACK/WHITE/RED/BLUE)   | 12 STRANDED<br>(GREEN) | 10 SOLID<br>ALUMINUM | 55-93-61-01    | 55-93-61-02     | 194                   | .54                             |
| 10-2 STRANDED<br>(BLACK/WHITE)            | 10 STRANDED<br>(GREEN) | 8 SOLID<br>ALUMINUM  | 56-07-98-01    | 56-07-98-02     | 170                   | .549                            |

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|   |                        |                      |             |             |     |      |
|---|------------------------|----------------------|-------------|-------------|-----|------|
| 10-3 STRANDED<br>(BLACK/WHITE/RED)        | 10 STRANDED<br>(GREEN) | 8 SOLID<br>ALUMINUM  | 56-08-00-01 | 56-08-00-02 | 212 | .589 |
| <b>SOLID CONDUCTOR COLORS 277/480V</b>    |                        |                      |             |             |     |      |
| 12-2 SOLID<br>(YELLOW/GRAY)               | 12 SOLID<br>(GREEN)    | 10 SOLID<br>ALUMINUM | 55-55-44-01 | 55-55-44-02 | 111 | .455 |
| 12-2 SOLID<br>(BROWN/GRAY)                | 12 SOLID<br>(GREEN)    | 10 SOLID<br>ALUMINUM | 55-57-39-01 | 55-57-39-02 | 111 | .455 |
| 12-2 SOLID<br>(ORANGE/GRAY)               | 12 SOLID<br>(GREEN)    | 10 SOLID<br>ALUMINUM | 55-55-43-01 | 55-55-43-02 | 111 | .455 |
| 12-3 SOLID<br>(BROWN/YELLOW/GRAY)         | 12 SOLID<br>(GREEN)    | 10 SOLID<br>ALUMINUM | 55-58-33-01 | 55-58-33-02 | 155 | .48  |
| 12-3 SOLID<br>(BROWN/ORANGE/GRAY)         | 12 SOLID<br>(GREEN)    | 10 SOLID<br>ALUMINUM | 55-57-41-01 | 55-57-41-02 | 155 | .48  |
| 12-4 SOLID<br>(BROWN/ORANGE/YELLOW/GRAY)  | 12 SOLID<br>(GREEN)    | 10 SOLID<br>ALUMINUM | 55-57-43-01 | 55-57-43-02 | 183 | .515 |
| 10-2 SOLID<br>(BROWN/GRAY)                | 10 SOLID<br>(GREEN)    | 8 SOLID<br>ALUMINUM  | 55-57-45-01 | 55-57-45-02 | 184 | .52  |
| 10-3 SOLID<br>(BROWN/ORANGE/GRAY)         | 10 SOLID<br>(GREEN)    | 8 SOLID<br>ALUMINUM  | 55-57-47-01 | 55-57-47-02 | 203 | .565 |
| 10-4 SOLID<br>(BROWN/ORANGE/YELLOW/GRAY)  | 10 SOLID<br>(GREEN)    | 8 SOLID<br>ALUMINUM  | 55-57-50-01 | 55-57-50-02 | 278 | .67  |
| <b>STRANDED CONDUCTOR COLORS 277/480V</b> |                        |                      |             |             |     |      |
| 12-2 STRANDED<br>(BROWN/GRAY)             | 12 STRANDED<br>(GREEN) | 10 SOLID<br>ALUMINUM | 55-87-24-01 |             | 116 | .468 |
| 12-2 STRANDED<br>(ORANGE/GRAY)            | 12 STRANDED<br>(GREEN) | 10 SOLID<br>ALUMINUM | 56-09-77-01 |             | 116 | .468 |
| 12-3 STRANDED<br>(BROWN/ORANGE/GRAY)      | 12 STRANDED<br>(GREEN) | 10 SOLID<br>ALUMINUM | 55-97-91-01 |             | 165 | .51  |

|   |                     |                      |                        |  |     |      |
|---|---------------------|----------------------|------------------------|--|-----|------|
| <b>MCAP HCF MULTIPLE NEUTRAL</b>  |                     |                      |                        |  |     |      |
| 12-2 SOLID (BLACK/RED)<br>12-2 SOLID (WHITE-BLACK/<br>WHITE-RED)                                      | 12 SOLID<br>(GREEN) | 10 SOLID<br>ALUMINUM | 55-77-38-02<br>(1000') |  | 162 | .514 |
| 12-3 SOLID (BLACK/RED/BLUE)<br>12-3 SOLID (WHITE-BLACK/WHITE-<br>RED/WHITE-BLUE)                      | 12 SOLID<br>(GREEN) | 10 SOLID<br>ALUMINUM | 56-08-34-02<br>(1000') |  | 210 | .550 |
| 12-4 SOLID<br>(BLACK/RED/BLUE/BLACK-WHITE)<br>12-4 SOLID (WHITE-BLACK/WHITE-<br>RED/WHITE-BLUE/WHITE) | 12 SOLID<br>(GREEN) | 10 SOLID<br>ALUMINUM | 56-72-24-02<br>(1000') |  | 262 | .623 |
| 10-2 SOLID (BLACK/RED)<br>10-2 SOLID (WHITE-BLACK/<br>WHITE-RED)                                      | 10 SOLID<br>(GREEN) | 8 SOLID<br>ALUMINUM  | 56-72-26-02<br>(1000') |  | 245 | .601 |
| 10-3 SOLID (BLACK/RED/BLUE)<br>10-3 SOLID (WHITE-BLACK/WHITE-<br>RED/WHITE-BLUE)                      | 10 SOLID<br>(GREEN) | 8 SOLID<br>ALUMINUM  | 56-27-16-02<br>(1000') |  | 327 | .700 |
| 10-4 SOLID<br>(BLACK/RED/BLUE/BLACK-WHITE)<br>10-4 SOLID (WHITE-BLACK/WHITE-<br>RED/WHITE-BLUE/WHITE) | 10 SOLID<br>(GREEN) | 8 SOLID<br>ALUMINUM  | 56-72-28-02<br>(1000') |  | 403 | .765 |

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|  |                        |                      |                        |     |      |
|--|------------------------|----------------------|------------------------|-----|------|
| 12-2 STRANDED (BLACK/RED)<br>12-2 STRANDED (WHITE-BLACK/<br>WHITE-RED)                 | 12 STRANDED<br>(GREEN) | 10 SOLID<br>ALUMINUM | 56-72-38-02<br>(1000') | 171 | .539 |
| 12-3 STRANDED (BLACK/RED/BLUE)<br>12-3 STRANDED (WHITE-<br>BLACK/WHITE-RED/WHITE-BLUE) | 12 STRANDED<br>(GREEN) | 10 SOLID<br>ALUMINUM | 56-72-36-02<br>(1000') | 223 | .583 |
| Consult NEC 310.15 for ampacities.   |                        |                      |                        |     |      |

## 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.

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

| SIZE<br>AWG OR<br>KCMIL  | TEMPERATURE RATING OF CONDUCTOR |   |   |
|--|---------------------------------|---|---|
|  | 60°C<br>(140°F)                 | 75°C (167°F)  | 90°C (194°F)  |
|  | Types:<br>TW, UF                | Types: RHW,<br>THHW, THW,<br>THWN, XHHW,<br>USE, ZW | Types: TBS, SA, SIS,<br>RHH, RHW-2, THHN,<br>THHW, THW-2, THWN-<br>2, USE-2, XHH, XHHW,<br>XHHW-2, ZW-2 |
|  | <b>COPPER</b>                   |   |   |
| 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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