

TYPE MC HCF - SG (SmartGround™) COPPER CONDUCTOR STEEL ARMOR



SmartColorID®

ENGINEERING SPECIFICATIONS:

Standards:

Underwriters Laboratories Standards UL-83, UL-1063, UL-1569 for type MC, NEMA WC 70/ICEA 5-95-658, Federal Specification A-A59544, IEEE 1202 (70,000 Btu/hr) Vertical Cable Tray Flame Test, and the National Electrical Code; and ARRA 2009; Section 1605 "Buy American" Compliant

Applications:

- Type MC cable shall be permitted as follows:
- Suitable for applications requiring branch and feeder circuits for non-essential, general purposes electrical systems in patient care areas of health care facilities or for use in essential electrical systems when in accordance with 2008 NEC 517.30 (C)(3). Acceptable in facilities such as hospitals, nursing homes, dental offices, and other types of medical facilities including out patient facilities
 - Permitted use for services, feeders, and branch circuits in industrial, commercial, and multi-residential buildings
 - Acceptable for power, lighting, control, and signal circuits
 - Allowable in concealed or exposed systems
 - Permitted use in dry locations and embedded in plaster finish on brick or other masonry except in damp or wet locations
 - Utilized for environmental air-handling spaces (NEC 300.22)(C)
 - Allowable in assembly occupancies (NEC 518.4)
 - Permissible in theaters, audience areas of motion pictures, television studios, and similar locations (NEC 520.5)
 - Allowable installations in approved raceways and cable trays (NEC 392)
 - Suitable for installation under raised floors for IT equipment (NEC 645.5)
 - Permitted in Class I Div. 2, Class II Div. 2, and Class III Div. 1 Hazardous Locations
 - Listed for use in UL 1,2, and 3 Hour Through-Penetration Firestop Systems

HCF-SG™



Listed E-301130

SmartColorID®



CONSTRUCTION:

Conductors:

Available in sizes 12 AWG through 10 AWG. Encore's Metal Clad Cable is constructed with soft-drawn copper, Type THHN/THWN conductors rated 90°C dry. All conductors are individually wrapped with flame retardant colored protective paper with print legend and cabled together to form the cable core. Includes green ground same size as circuit conductors. The bare aluminum grounding/bonding conductor is located outside the paper wrap and is cabled with the insulated conductors and in constant contact with sheathing. Interlocked steel armor is applied over the entire assembly.

Type MC HCF-SG (SmartGround™) Copper Conductor Steel Armor 600V

Conductors			Green THHN Copper Ground (AWG)	Outside Diameter Over Armor (in)	Total Weight of Type MC-Copper Conductor (lbs/1000 ft)	Allowable Ampacity (Amps)*			Standard Packaging	
AWG/No.	Type	Ground				60°C	75°C	90°C	Coil (ft)	Reel (ft)
12/2	Solid	10 Solid AL	12	0.490	171	20	20	20	250'	1000'
12/3	Solid	10 Solid AL	12	0.503	202	20	20	20	250'	1000'
12/4	Solid	10 Solid AL	12	0.538	232	20	20	20	250'	1000'
10/2	Solid	8 Solid AL	10	0.544	234	30	30	30	250'	1000'
10/3	Solid	8 Solid AL	10	0.587	280	30	30	30	250'	1000'
10/4	Solid	8 Solid AL	10	0.632	327	30	30	30	250'	1000'

Note: Available in strand by request. Ampacities are based on Table 310.15(B)(16) of the NEC.

*Ampacities shown are for general use as specified by the NEC, Section 310.15.

For equipment marked for use at higher temperatures, the conductor ampacity shall be limited to the following per NEC 110.14(C):

60°C when terminated to equipment for circuits rated 100 amperes or less or marked for size 14 AWG through 1 AWG conductor.

75°C when terminated to equipment for circuits rated over 100 amperes or marked for conductors larger than 1 AWG.

90°C for ampacity derating purposes.

When the neutral is considered current-carrying conductor, the ampacity of 4/C cables shall be reduced by a factor of 0.80 per NEC 310.15(B)(2)(a).

The above data is approximate and subject to normal manufacturing tolerances.

Features:

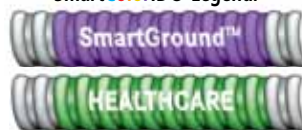
The NEC 250.118(8) recognizes the combination of interlocking armor and bond wire as an equipment grounding conductor. The green insulated copper equipment grounding conductor sized per NEC 517.13(B) and 250.122. Insulating anti-short bushings are supplied with each reel or coil. Suitable for type MCI-A fittings. SmartColorID® labels are spaced at regular intervals on the exterior of the metal sheathing and are removable. For ease of installation and pulling, cable is reverse wound on reels. Coils are designed to be pulled from the inside.

Standard Conductor Color Coding

Number	120/208Y	Number	277/480Y
2	Black/White	2	Brown/Gray
3	Black/Red/White	2	Orange/Gray
4	Black/Red/Blue/White	2	Yellow/Gray
Ground	Green	2	Purple/Gray
		3	Brown/Yellow/Gray
		3	Brown/Orange/Gray
		4	Brown/Orange/Yellow/Gray
		4	Brown/Yellow/Purple/Gray
		Ground	Green

Additional colors available subject to ERQ

SmartColorID® Legend:



See page 104 for complete legend