

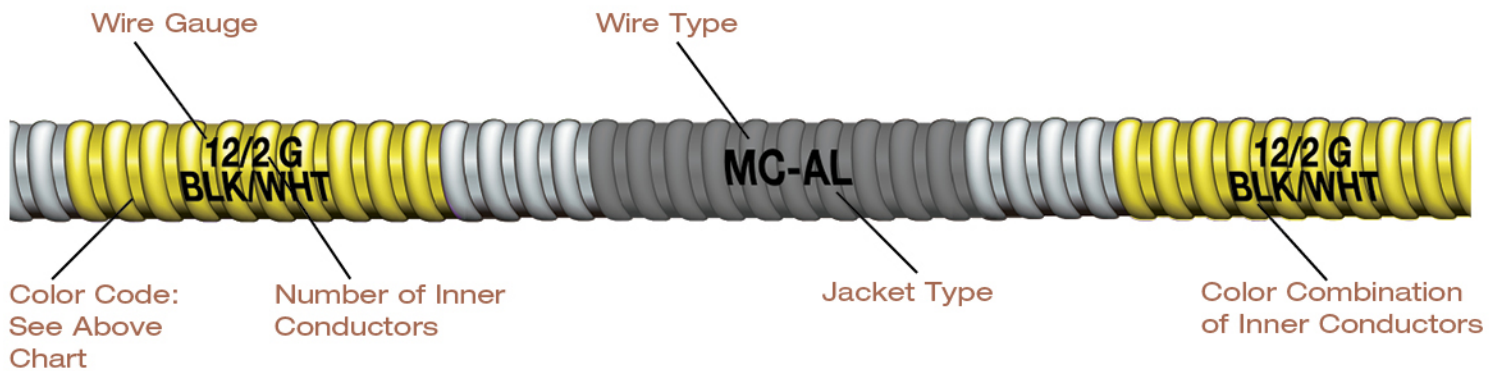
# SMARTCOLOR ID® GUIDE

Our removable SmartColorID® labels are spaced at regular intervals on the exterior of the metal sheathing. Available in aluminum or steel MC cables.

MC/AC Size	Color Code
8 AWG	Black
10 AWG	Orange
12 AWG	Yellow
14 AWG	White

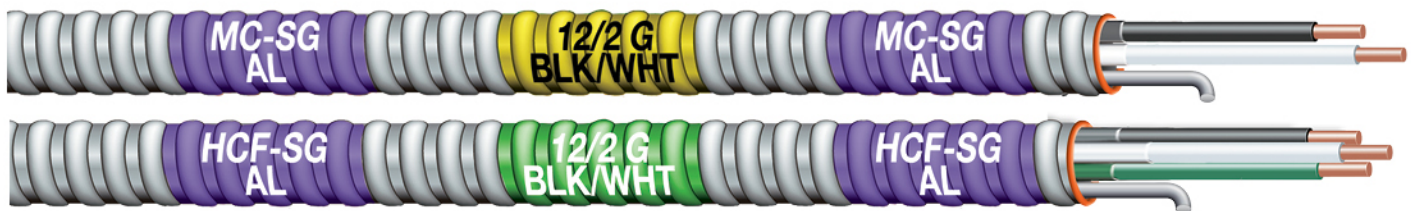
MC Jacket	Color Code
Steel	Blue
Aluminum	Gray

Special Constructions	Color Code
Fire Alarm	Red
Healthcare	Green
SmartGround	Purple
MC-Isolated Ground	White
MC-Oversized Neutral	White
MC-Multi-Neutral	White
MC-Multi-Circuit	White
AC-Armored Cable	White



## MC SmartGround™

Self-grounding, a faster and more convenient way to install MC cable! MC SmartGround™ contains an aluminum bond wire that remains in constant contact with the metal sheathing, whereby the sheathing itself becomes part of the grounding path. Encore's MC products provide lower installation cost when compared to traditional conduit and wire, aluminum or steel interlocked sheathing, and MC SmartGround™ can reduce installation time even more by eliminating the additional step of terminating the ground. Also available in MC HCF-SmartGround™.



## AC-HCF SmartColorID®

Encore Wire's armor-clad Healthcare Facility Cable is now offered with a unique, removable label for easy identification. Available in interlocked aluminum or steel armor.



## EmergMC™

Encore Wire's plenum rated, limited power (FPLP) Fire Alarm and Control Cable is perfectly designed for your emergency systems. EmergMC™ fire alarm cable is easily identified by our SmartColorID® labeling system.



# TYPE MC-COPPER CONDUCTOR-STEEL ARMOR/THHN INNERS



## ENGINEERING SPECIFICATIONS:

### Standards:

Underwriters Laboratories Standards UL-83, 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 (NEC); ARRA 2009; Section 1605 "Buy American" Compliant



Listed E-301130



### Applications: Type MC cable shall be permitted as follows:

- Permitted use for services, feeders, and branch circuits in industrial, commercial, and multi-residential buildings
- Acceptable for power, lighting, control, and signal circuits (NEC 300.22(C))
- 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) and 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) and 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 and listed for use in UL 1, 2, and 3 Hour Through-Penetration Firestop Systems

SmartColorID®

## CONSTRUCTION:

Available in sizes 14 AWG through 750 KCMIL with a green insulated grounding conductor. Encore's Metal Clad Cable is constructed with soft-drawn copper, Type THHN/THWN-2 conductors rated 90°C dry locations sizes 14 AWG through 1 AWG contain a green insulated ground. All conductors are cabled together with a separator tape, containing the identification print legend to form the cable core. Interlocked galvanized steel armor is applied over the entire assembly.

### Type MC-Copper Conductor-Steel Armor/THHN/THWN-2 Inners 600V

Conductors			Overall Diameter (in)	Approximate Net Weight (lbs/1000 ft)	Allowable Ampacity (Amps)*		Standard Packaging	
AWG/No.	Type	Green Ground			75°C	90°C	Coil (ft)	Reel (ft)
14/2	Solid	14 AWG	0.401	123	15	15	250'	1000'
14/3	Solid	14 AWG	0.427	144	15	15	250'	1000'
14/4	Solid	14 AWG	0.456	166	15	15	250'	1000'
12/2	Solid	12 AWG	0.487	155	20	20	250'	1000'
12/3	Solid	12 AWG	0.495	185	20	20	250'	1000'
12/4	Solid	12 AWG	0.501	215	20	20	250'	1000'
10/2	Solid	10 AWG	0.502	210	30	30	250'	1000'
10/3	Solid	10 AWG	0.541	256	30	30	250'	1000'
10/4	Solid	10 AWG	0.584	302	30	30	250'	1000'
12/2	Stranded	12 AWG	0.487	160	20	20	250'	1000'
12/3	Stranded	12 AWG	0.495	191	20	20	250'	1000'
12/4	Stranded	12 AWG	0.522	223	20	20	250'	1000'
10/2	Stranded	10 AWG	0.525	219	30	30	250'	1000'
10/3	Stranded	10 AWG	0.566	266	30	30	250'	1000'
10/4	Stranded	10 AWG	0.611	313	30	30	250'	1000'
8/2	Stranded	10 AWG	0.641	347	50	55	200'	500'/100'
8/3	Stranded	10 AWG	0.713	431	50	55	200'	500'/100'
8/4	Stranded	10 AWG	0.783	514	50	55	200'	500'/100'
6/2	Stranded	8 AWG	0.743	466	65	75	125'	500'/100'
6/3	Stranded	8 AWG	0.827	586	65	75	125'	500'/100'
6/4	Stranded	8 AWG	0.909	745	65	75	100'	500'/100'
4/3	Stranded	8 AWG	0.943	790	85	95	100'	500'
4/4	Stranded	8 AWG	1.047	972	85	95	100'	500'
3/3	Stranded	6 AWG	1.026	953	100	115	100'	500'
3/4	Stranded	6 AWG	1.139	1172	100	115	100'	500'
2/3	Stranded	6 AWG	1.079	1102	115	130	100'	500'
2/4	Stranded	6 AWG	1.203	1368	115	130	100'	500'

Note: Ampacities are based on Table 310.16 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.

### Standard Conductor Color Coding

Number	120/208Y
2	Black/White
3	Black/Red/White
4	Black/Red/Blue/White
Ground	Green

Number	277/480Y
2	Brown/Gray
2	Orange/Gray
2	Yellow/Gray
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

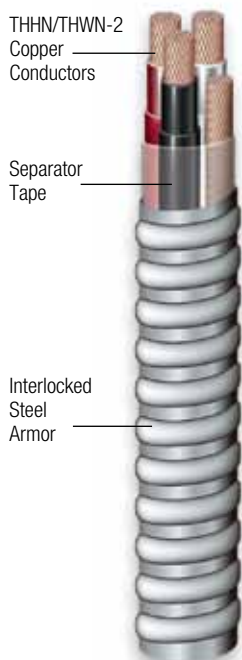
### SmartColorID® Legend:



See page 104 for complete legend

### Features:

Installation costs reduced up to 50% over conduit and wire. Insulating anti-short bushings are supplied with each reel or coil. 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.



## ENGINEERING SPECIFICATIONS:

### Standards:

Underwriters Laboratories Standards UL-83, 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 (NEC); ARRA 2009; Section 1605 "Buy American" Compliant

### Applications:

- Permitted use for service power and feeder distribution 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)) as well as 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 and listed for use in UL 1, 2, and 3 Hour Through-Penetration Firestop Systems

### CONSTRUCTION:

Available in sizes 14 AWG through 750 KCMIL, Encore Wire Metal Clad Cable is constructed with soft-drawn copper, Type THHN/THWN-2 conductors rated 90°C dry locations. Size 14 AWG through 1 AWG contain a green insulated grounding conductor. Larger sizes are supplied with a bare ground conductor. All conductors are cabled together with a separator tape containing the identification print legend to form the cable core. Interlocked galvanized steel armor is applied over the entire assembly.

### Type MC-Copper Conductor Steel Armor/THHN/THWN-2 Inners 600V

Conductors			Overall Diameter (in)	Approximate Net Weight (lbs/1000 ft)	Allowable Ampacity (Amps)*		Standard Packaging (ft)
AWG/No.	Type	Ground			75°C	90°C	
1/3	Stranded	6 AWG Green Insulated	1.174	1322	130	145	1000' reels
1/4	Stranded	6 AWG Green Insulated	1.317	1658	130	145	1000' reels
1/0-3	Stranded	6 AWG Bare	1.220	1531	150	170	1000' reels
1/0-4	Stranded	6 AWG Bare	1.342	1928	150	170	1000' reels
2/0-3	Stranded	6 AWG Bare	1.314	1822	175	195	1000' reels
2/0-4	Stranded	6 AWG Bare	1.449	2309	175	195	1000' reels
3/0-3	Stranded	4 AWG Bare	1.442	2228	200	225	1000' reels
3/0-4	Stranded	4 AWG Bare	1.569	2828	200	225	1000' reels
4/0-3	Stranded	4 AWG Bare	1.543	2677	230	260	1000' reels
4/0-4	Stranded	4 AWG Bare	1.704	3417	230	260	1000' reels
250-3	Stranded	4 AWG Bare	1.661	3238	255	290	1000' reels
250-4	Stranded	4 AWG Bare	1.837	4151	255	290	1000' reels
300-3	Stranded	3 AWG Bare	1.755	3752	285	320	1000' reels
300-4	Stranded	3 AWG Bare	1.962	4829	285	320	1000' reels
350-3	Stranded	3 AWG Bare	1.874	4304	310	350	1000' reels
350-4	Stranded	3 AWG Bare	2.076	5545	310	350	1000' reels
400-3	Stranded	3 AWG Bare	1.969	4817	335	380	1000' reels
400-4	Stranded	3 AWG Bare	2.182	6223	335	380	1000' reels
500-3	Stranded	2 AWG Bare	2.144	5882	380	430	1000' reels
500-4	Stranded	2 AWG Bare	2.377	7616	380	430	1000' reels
600-3	Stranded	2 AWG Bare	2.465	7002	420	475	1000' reels
600-4	Stranded	2 AWG Bare	2.737	9084	420	475	1000' reels
750-3	Stranded	1 AWG Bare	2.691	8546	475	535	1000' reels
750-4	Stranded	1 AWG Bare	2.990	11107	475	535	1000' reels

Note: 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). 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.

### Standard Conductor Color Coding

#### Features:

Installation costs reduced up to 50% over conduit and wire. Insulating anti-short bushings are supplied with each reel. For ease of installation and pulling, cable is reverse wound on reels.

Number	120/208Y
2	Black/White
3	Black/Red/White
4	Black/Red/Blue/White
Ground	Bare

Additional colors available subject to ERQ

Number	277/480Y
2	Brown/Gray
2	Orange/Gray
2	Yellow/Gray
2	Purple/Gray
3	Brown/Yellow/Gray
3	Brown/Orange/Gray
4	Brown/Orange/Yellow/Gray
4	Brown/Yellow/Purple/Gray
Ground	Bare