**CONSTRUCTION**

Available in sizes 14 AWG through 10 AWG. Encore’s Metal-Clad Cable is constructed with soft-drawn copper, Type THHN/THWN-2 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. The bare aluminum grounding/bonding conductor is located outside the paper wrap and is wrapped with the insulated conductors and in constant contact with sheathing per NEC 250.118(10)(b). Interlocked galvanized lightweight steel armor is applied over the entire assembly.

![Metal-Clad Cable](image)

**FEATURES**

The NEC 250.118(10)(b) recognizes the combination of interlocking armor and bond wire as an equipment grounding conductor. Installation costs reduced by up to 50% over raceway and wire. Insulating anti-short bushings are supplied with each reel or coil, but not required per Section 330.40 of the NEC. Suitable for type MCA 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.

<table>
<thead>
<tr>
<th>AWG/No.</th>
<th>Type</th>
<th>Outside Diameter Over Armor (in)</th>
<th>Total Weight of Type MC-Copper Conductor (lbs/1000 ft)</th>
<th>Allowable Ampacity (Amps)</th>
<th>Standard Packaging (ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>14/2</td>
<td>Solid</td>
<td>0.453</td>
<td>128.77</td>
<td>15</td>
<td>20 25 250' 1000'</td>
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<tr>
<td>14/3</td>
<td>Solid</td>
<td>0.483</td>
<td>152.94</td>
<td>15</td>
<td>20 25 250' 1000'</td>
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<td>14/4</td>
<td>Solid</td>
<td>0.515</td>
<td>175.82</td>
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<td>Solid</td>
<td>0.482</td>
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<td>25 30 250' 1000'</td>
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<tr>
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<td>221.17</td>
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<td>151.43</td>
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<td>0.666</td>
<td>310.74</td>
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</tbody>
</table>

1. SmartColorID manufactured under Patent No. 7,954,530; 8,454,785; 8,626,960 & 8,935,108

2. Ampacity of conductors is based on NFPA 70 (NEC Table 310.15(B)(16). See 110.14(C), 240.40 and 310.15(B) for other limitations where applicable.

For environments 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)(3)(a).

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

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**APPLICATIONS**

Type MC cable shall be permitted as follows:

- Permitted use for branch circuits in residential, commercial, industrial, and non-patient care areas/spaces of health care facilities;
- 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)(1));
- 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(E));
- Permitted in Class I Div. 2, Class II Div. 2, and Class III Div. 1 Hazardous Locations;
- Listed for use with UL 1479 - 1, 2, and 3 Hour Through-Penetration Firestop Systems;

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**ENGINEERING SPECIFICATIONS**

**Standards**

Underwriters Laboratories Standards UL-83, UL-1569, UL-1581, UL-2556 for type MC; Federal Specification A-A59544; NEMA RV 1-2014; IEEE 1202 (70,000 Btu/hr) Vertical Cable Tray Flame Test; NFPA 70 (NEC®) Article 330; ARRA 2009 Section 1605 “Buy American” Compliant; RoHS Compliant; MasterSpec Division 26 Sections 260519, 260523; UL Listing #E-301130

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**FEATURES**

- THHN/THWN-2 Copper Conductor
- PVC Insulation with Nylon Jacket
- Aluminum Bonding Wire
- Interlocked Galvanized Lightweight Steel Armor
- Colored Flame-Redardant Protective Paper Covering
- Removable SmartColorID Label
- SmartColorID™ Protection
- SmartColorID™ SmartColorTM Protection
- Interlocking Armor

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**STANDARD CONDUCTOR COLOR CODING**

- 120V/208V/240V
  - No. 2: Black/White
  - No. 3: Black/Red/Blue/White
  - No. 4: Brown/Grey

- 277V/480V
  - No. 2: Brown/Orange/Gray
  - No. 3: Brown/Grey
  - No. 4: Brown/Orange/Yellow/Gray

Additional colors available subject to ERQ