

TYPE MC-LED HEALTHCARE (MC-LED-SG) - COPPER CONDUCTOR - ALUMINUM ARMOR 600V THHN/THWN-2 INNERS

ENGINEERING SPECIFICATIONS:

Standards

Underwriters Laboratories Standards UL-66, UL-83, UL-1479, UL-1569, UL-1581, UL-2556; Federal Specification A-A-59544; ASTM-B3 and B8; NEMA WC70/CEA S-95-658; NFPA70 (NEC[®]) Articles 250.118(10)(a) and (b), 300.22(C)(1), 330, 392, 396, 501, 502, 503, 504, 505, 517, 518, 520, 530, 645, 725; ARRA 2009 Section 1605 "Buy American" Compliant; RoHS Compliant; UL CRD Type MC-PCS - 12/19/2014 (Effective 2/1/2015); MasterSpec Division 26 Sections 260519, 260523; UL Listing #E-301130



CONSTRUCTION

Conductors

Lighting (Power or Class 1) - Solid 12-10 AWG soft, uncoated copper per ASTM-B3; Class 2 and Class 3 - Solid 16 AWG soft, uncoated copper per ASTM-B3

Insulation

Color-coded Polyvinyl Chloride (PVC) compound meeting the required thickness of Type THHN/THWN-2 with a heat-stabilized Nylon rated for 90°C.

Class 2 and Class 3 Conductors:

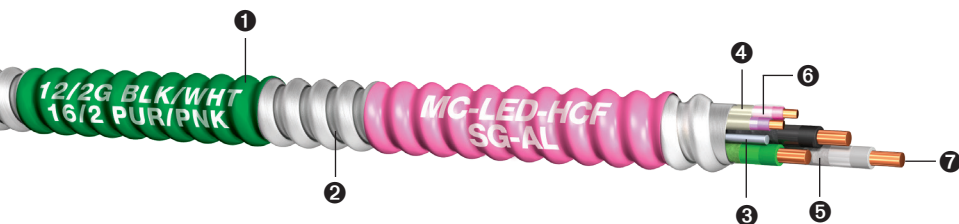
Color-coded (purple/pink) 16 AWG twisted jacketed pair with 600V insulation. The National Electrical Code (NEC) and UL 1569 permits electric light and power circuits conductors in an MC Cable with class 2 and class 3 circuits in accordance with NEC Section 725.136(l)(1).

Assembly

Encore's **MC-LED Healthcare** cable is constructed with soft-drawn copper, Type THHN/THWN-2 conductors rated 90°C dry. All conductors are individually wrapped with flame retardant, color-matched protective paper with print legend and cabled together to form the cable core. Includes green insulated equipment grounding conductor. The bare aluminum grounding/bonding conductor is located outside the paper wrap and is cabled with the insulated conductors and in constant contact with armor sheathing. Interlocked aluminum armor is applied over the entire assembly which provides additional mechanical protection. Available in Steel and Aluminum Armor.

APPLICATIONS

Type **MC-LED Healthcare** (Type MC-PCS) with SmartGround technology is designed for use with LED and Fluorescent dimming systems and power management systems in smart building technology for patient care areas/spaces of healthcare facilities to aid in optimal control over the building's lighting management systems. Type **MC-LED Healthcare** may be surface mounted, fished and/or embedded in plaster in normally dry locations. Type **MC-LED Healthcare** eliminates the need to install a separate low-voltage cable and traditional lighting/power MC Cable to a single luminaire in patient care areas/spaces in healthcare facilities. Type **MC-LED Healthcare** complies with NEC Section 517.13(a) and (b). UL Classified for 1, 2 and 3 hour through penetrations (Fire-Stop). Meets acceptable uses in accordance with NEC 250.118(10)(a) and (b), 300.22, 330, 392, 396, 501, 502, 503, 504, 505, 517, 518, 520, 530, 645, and 725.



- 1 Removable SmartColorID[®] Label
- 2 Interlocked Aluminum
- 3 Aluminum Grounding/Bonding Wire
- 4 PVC Nonmetallic Sheathing
- 5 Color Matched Paper Tape
- 6 TFN or Equivalent Copper Conductors
- 7 THHN/THWN-2 or Equivalent Solid or Stranded Copper Conductors

Size (AWG)	Type	Ground Wire Size (AWG)	Aluminum Bond Wire (AWG)	Twisted Jacketed Pair (AWG)	Outside Diameter Over Armor (in)	Approximate Net Weight (lbs/1000 ft)	Allowable Ampacity (Amps) ²		Standard Packaging (ft)	
							75°	90°	Coils	Reels
12/2	Solid	12 AWG Green Insulated	10 Solid	16/2 Solid	0.654	165.82	25	30	250'	1000'
10/2	Solid	10 AWG Green Insulated	8 Solid	16/2 Solid	0.743	183.04	35	40	250'	1000'
12/3	Solid	12 AWG Green Insulated	10 Solid	16/2 Solid	0.704	190.99	25	30	250'	1000'
10/3	Solid	10 AWG Green Insulated	8 Solid	16/2 Solid	0.768	256.02	35	40	250'	1000'

¹ SmartColorID manufactured under Patent No. 7,954,530, 8,454,785, 8,826,960 & 8,905,108

² Ampacity of conductors are based on NFPA 70 (NEC) Table 310.15(B)(16). See 110.14(C), 240.4(D) and 310.15(B) for other limitations where applicable.

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

FEATURES

The NEC 250.118(10)(b) 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. 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 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

Phase Conductors	120V/208V/240V	Phase Conductors	277V/480V
2	Black/White	2	Brown/Gray
3	Black/White/Red	3	Brown/Orange/Gray
Ground	Green	Ground	Green

SmartColorID Legend:



Sub-Assembly

2	Purple/Pink
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