

# TYPE MC-LED (MC-PCS) LIGHTING CABLE - COPPER CONDUCTOR - ARMORED - PVC JACKET - 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; NFPA 70 (NEC®) Article 250.118(10)(a), 300.22(C)(1), 330, 392, 396, 501, 502, 503, 504, 505, 518, 520, 530, 645, 725; ARRA 2009 Section 1605 "Buy American" Compliant; UL CRD Type MC-PCS - 12/19/2014 (Effective 2/1/2015); RoHS Compliant; MasterSpec Division 26 Sections 260519, 260523; UL Listing #E-301130



**SMARTCOLORID**

## CONSTRUCTION

### Conductors

Lighting (Power or Class 1) - Solid or Stranded 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 for use in dry or wet locations.

### Class 2 and Class 3 Conductors

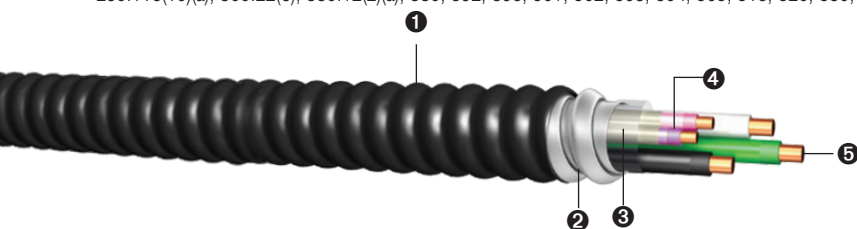
Color-coded (purple/pink) 16 AWG twisted jacketed pair with 600V insulation. The National Electrical Code (NEC) and UL 1569 permits electric light and power circuits conductors in an MC Cable with class 2 and class 3 circuits in accordance with NEC Section 725.136(l)(1).

### Assembly

Two conductors and a green equipment grounding conductor cabled together with an individually-jacketed twisted pair included. The entire assembly is wrapped with separator tape containing the information print legend. Interlocked aluminum armor is applied over the assembly. A flame retardant, sunlight-resistant black pvc jacket is applied over the armor.

## APPLICATIONS

MC-LED (Type MC-PCS) cable is designed for use with LED and Fluorescent dimming systems and smart building technology that offers optimal control over building's lighting systems including outdoors, such as parking decks, sporting arenas, and parking lots where PVC jacketed. MC-LED may be surface mounted, fished and/or embedded in plaster in wet, damp, or dry locations. MC-LED eliminates the need to install a separate low-voltage cable and traditional lighting/power MC Cable to a single luminaire. UL Classified for 1, 2 and 3 hour through penetrations (Fire-Stop). Jacketed MC-LED is identified for use in corrosive conditions, such as direct burial in earth or embedded in concrete. Meets acceptable uses in accordance with NEC 250.118(10)(a), 300.22(C), 330.12(2)(a), 330, 392, 396, 501, 502, 503, 504, 505, 518, 520, 530, 645 and 725.



- 1 Black PVC Jacket
- 2 Interlocked Aluminum Armor
- 3 Separator Tape
- 4 TFN or Equivalent Copper Conductors
- 5 THHN/THWN-2 or Equivalent Solid or Stranded Copper Conductors

Size (AWG)	No. of Strands	Ground Wire Size (AWG)	Twisted Jacketed Pair (AWG)	Outside Diameter Over Armor (in)	Outside Diameter Over Jacket (in)	PVC Thickness	Approximate Net Weight (lbs/1000 ft)	Allowable Ampacity (Amps) <sup>2</sup>		Standard Packaging (ft)
								75°	90°	
12/2	Solid	12 AWG Green Insulated	16/2 Solid	0.589	.689	.050	210	25	30	250' 1000'
10/2	Solid	10 AWG Green Insulated	16/2 Solid	0.657	.757	.050	260	35	40	250' 1000'
12/3	Solid	12 AWG Green Insulated	16/2 Solid	0.630	.730	.050	240	25	30	250' 1000'
12/2	Stranded	12 AWG Green Insulated	16/2 Solid	0.617	.717	.050	215	25	30	250' 1000'
10/2	Stranded	10 AWG Green Insulated	16/2 Solid	0.685	.785	.050	270	35	40	250' 1000'
12/3	Stranded	12 AWG Green Insulated	16/2 Solid	0.674	.774	.050	250	25	30	250' 1000'

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

<sup>2</sup> Ampacity of conductors are based on NFPA 70 (NEC) Table 310.16. See 110.14(C), 240.4(D) and 310.15(B)&(C) for other limitations where applicable. The above data is approximate and subject to normal manufacturing tolerances.

**PRINT LEGEND:** ENCORE WIRE CORPORATION (SIZE) W/ 16/2 TYPE MC-PCS W/PVC JACKET 600 VOLTS (UL) TYPE THHN OR THWN INSULATED CONDUCTORS FOR CT USE DATE/TIME/OPER/QC MACHINE

## FEATURES

Installation costs reduced up to 50% over raceway and wire. 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.

## NOTE

Insulating anti-short bushings are not required by Section 330.40 of the NEC.

## 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

## Sub-Assembly

2	Purple/Pink
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SmartColorID Legend:

