

TYPE NM-B PCS - COPPER CONDUCTOR - 600V

ENGINEERING SPECIFICATIONS

Standards

Underwriters Laboratories Standards UL-66, UL-83, UL-719, UL-1581, UL-2556; Federal Specification A-A-59544; ASTM-B3; New York State DOS-16120-87-1222-1048; NEMA RV 2-2011; NFPA 70 (NEC®) Article 334; Article 725 Section 136 (I)(1), ARRA 2009 Section 1605 "Buy American" Compliant; RoHS Compliant; MasterSpec Division 26 Sections 260519, 260523; UL Listing #E-123775



CONSTRUCTION

Conductors

Solid 14-10 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 or THWN-2 with a heat-stabilized Nylon jacket rated for 90°C in dry locations.

Grounding Conductor

Soft, uncoated copper per ASTM-B3

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 719 permits electric light and power circuits conductors in an NM-B Cable with class 2 and class 3 circuits in accordance with NEC Article 725 Section 136 (I)(1).

Jacket

A 30-mil, color-coded, flame retardant and moisture resistant PVC jacket is applied over the completed assembly as follows: 14 AWG White | 12 AWG Yellow | 10 AWG Orange

APPLICATIONS

Type NM-B (Non-metallic sheathed cable) has a broad range of usage as defined in Article 334 of the National Electrical Code (NEC). Type NM-B cable is commonly used for residential wiring of luminaires, devices and appliances. Type NM-B ampacity limitation shall be in accordance with the 60°C conductor temperature rating, as specified in the NEC. Type NM-B is rated 600-volt for both exposed and concealed work in normally dry locations. Type NM-B may be installed or fished in air voids and joints and in masonry block or tile walls where such walls are not exposed to, nor subject to, excessive moisture or dampness. Designed for use with LED and Fluorescent dimming systems and smart building technology. NM-B PCS eliminates the need to install separate low-voltage cable and traditional power NM cable to a single luminaire.

ASSEMBLY

Both 2- and 3-conductor constructions have the insulated conductors cabled with a bare copper ground wire wrapped in fire-retardant paper and Class 2/3 signal bundle.



- 1 SuperSlick Elite¹ Color-Coded PVC Jacket
- 2 Treated Paper Separator
- 3 Nylon Jacket
- 4 PVC Insulation
- 5 Annealed Solid Copper Conductor

Size (AWG or KCMIL)	No. of Strands	Ground Wire Size (AWG)	Insulation Thickness (in)		Twisted Jacketed Pair (AWG)	Allowable Ampacity (Amps) ²	Outside Diameter (in)	Approximate Net Weight (lbs/1000 ft)	Standard Packaging (ft)
			PVC	Nylon					
14/2 G ¹	Solid	14	0.015	0.004	16/2 Solid	15	0.362	93.63	250' EZ 1000' Reels
12/2 G ¹	Solid	12	0.015	0.004	16/2 Solid	20	0.395	118.35	250' EZ 1000' Reels
10/2 G ¹	Solid	10	0.020	0.004	16/2 Solid	30	0.460	160.50	250' EZ 1000' Reels
14/3 G ¹	Solid	14	0.015	0.004	16/2 Solid	15	0.387	109.98	250' EZ 1000' Reels
12/3 G ¹	Solid	12	0.015	0.004	16/2 Solid	20	0.416	142.26	250' EZ 1000' Reels
10/3 G ¹	Solid	10	0.020	0.004	16/2 Solid	30	0.480	197.81	250' EZ 1000' Reels

¹ SuperSlick Elite[®] manufactured under Patent No. 8,658,576

² Ampacity of conductors are based on NFPA 70 (NEC) Table 310.16. See 110.14(C), 240.4(D) and 310.15(B) and (C) for other limitations where applicable.

Note: Additional ampacity limitations, adjustments or corrections may apply per 310.15 and 240.4 of the NEC.

³ Color-Coding for four-color conductor NM-B Black, White, Red and Blue. 1 Color-Code for 2-2 conductor is Black, Red, White and White with a Red Stripe.

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

PRINT LEGEND: ENCORE WIRE CORP (SIZE) W/G TYPE NM-B PCS THIS CABLE CONTAINS BOTH SIGNAL/CONTROL AND POWER CONDUCTORS 600V (UL) DATE TIME OPERATOR QC SUPERSLICK ELITE[®]

NM-B PLUS SUB-ASSEMBLY

THE CONDUCTORS UNDER THIS JACKET ARE ONLY FOR SIGNAL/CONTROL CONNECTIONS NOT FOR CIRCUIT POWER