

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



Listed E-301130



SmartColorID®

Applications

Type MC cable shall be permitted as follows:

- Permitted multiple circuits 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.

CONSTRUCTION

Available in sizes 12 AWG and 10 AWG with oversized neutral conductors or one neutral per phase and one insulated ground conductor. Encore Wire Metal-Clad Cable is constructed with soft-drawn copper, Type THHN/THWN-2 conductors rated 90°C dry locations. All conductors are cabled together with a separator tape containing the identification print legend to form the cable core. Interlocked aluminum armor is applied over the entire assembly.



- 1 Removable SmartColorID® Label
- 2 Interlocked Aluminum Armor
- 3 Separator Tape
- 4 Multiple Neutrals featuring SmartStripe®
- 5 THHN/THWN-2 Solid or Stranded Copper Conductor

Phase Conductor AWG/No.	Conductor Type	Neutral Conductor AWG/No. ²	Ground Conductor AWG/No. ³	Overall Diameter (in)	Approximate Net Weight (lbs/1000 ft)	Allowable Ampacity (Amps) ⁴		Standard Packaging (ft)	
						75°C	90°C	Coils	Reels
12/2	Solid	12/2	12/1	0.508	152.67	25	30	250'	1000'
12/3	Solid	12/3	12/1	0.555	202.35	25	30	250'	1000'
12/4	Solid	10/2	12/1	0.599	232.77	25	30	250'	1000'
12/4	Solid	12/3	12/1	0.570	226.28	25	30	250'	1000'
12/6	Solid	10/2	12/1	0.655	289.00	25	30	200'	1000'
12/8	Solid	10/2	12/1	0.706	343.00	25	30	200'	1000'
10/2	Solid	10/2	10/1	0.590	226.58	35	40	200'	1000'
10/3	Solid	10/3	10/1	0.650	304.32	35	40	200'	1000'
10/4	Solid	10/2	10/1	0.650	304.32	35	40	200'	1000'
10/4	Solid	8/2	10/1	0.696	372.00	35	40	125'	1000'
10/6	Solid	8/2	10/1	0.755	452.00	35	40	125'	1000'
10/6	solid	10/6	10/1	0.825	532.87	35	40	125'	1000'
10/8	Solid	8/2	10/1	0.814	531.00	35	40	125'	1000'
12/2	Stranded	12/2	12/1	0.529	156.51	25	30	250'	1000'
12/3	Stranded	12/3	12/1	0.580	207.34	25	30	250'	1000'
12/4	Stranded	12/3	12/1	0.596	231.77	25	30	200'	1000'
10/2	Stranded	10/2	10/1	0.618	233.69	35	40	200'	1000'
10/3	Stranded	10/3	10/1	0.682	313.65	35	40	200'	1000'
10/4	Stranded	10/2	10/1	0.682	313.65	35	40	200'	1000'
10/4	Stranded	10/4	10/1	0.739	389.71	35	40	200'	1000'
10/6	Stranded	10/6	10/1	0.869	548.68	35	40	125'	1000'

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

² Conductor sizes 8 AWG and larger are stranded.

³ Double Ground available upon request

⁴ 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. 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.

FEATURES

Installation costs reduced up to 50% over raceway and wire. Weight of aluminum armor is as much as 45% less than steel. Insulating anti-short bushings are supplied with each reel or coil, but are not required per Section 330.40 of the NEC. 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

Multiple Neutrals	Color	Phase Conductors	120V/208V/240V/277V/480V
2	White w/ Black SmartStripe	2	Black/Red
	White w/ Red SmartStripe	3	Black/Red/Blue
		4	Black/Red/Blue/Orange
3	White w/ Black SmartStripe	6	Black/Red/Blue/Orange/Yellow/Brown
	White w/ Red SmartStripe		
	White w/ Blue SmartStripe	8	Black/Red/Blue/Orange/Yellow/Brown/Red w/ Black SmartStripe/Blue w/ Black Stripe
Ground	Color		
1	Green		

Additional colors available subject to ERQ