



SmartColorID®

**ENGINEERING SPECIFICATIONS:**



Listed E-301130



SmartColorID®

**Standards:**

Underwriters Laboratories Standards UL-83, UL-1569 for type MC, NEMA WC 70/CEA 5-95-658, Federal Specification A-A59544, IEEE 1202 (70,000 Btu/hr) Vertical Cable Tray Flame Test, National Electrical Code (NEC), and ARRA 2009; Section 1605 "Buy American" Compliant

**Applications:** Type MC cable shall be permitted as follows:

- Power system designs used to supply power to nonlinear loads may allow for the possibility of high harmonics
- Permitted use for services, feeders, and branch circuits in industrial, commercial, and multi-residential buildings
- 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)
- 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)
- Permitted in Class I Div. 2, Class II Div. 2, and Class III Div. 1 Hazardous Locations
- Listed for use in UL 1, 2, and 3 Hour Through-Penetration Firestop Systems

**CONSTRUCTION:**

Available in sizes 12 AWG and 10 AWG with an oversized neutral conductor and a green 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.

**Type MC-Copper Conductor-Oversized Neutral-Aluminum Armor THHN/THWN-2 Inners 600V**

Phase Conductor AWG/No.	Conductor Type	Neutral Conductor AWG/No.*	Ground Conductor AWG/No.	Overall Diameter (in)	Approximate Net Weight (lbs/1000 ft)	Standard Packaging (ft)
12/1	Solid	10/1	12/1	0.456	98	1000' reels
12/2	Solid	10/1	12/1	0.486	146	1000' reels
12/3	Solid	10/1	12/1	0.556	176	1000' reels
12/3	Solid	8/1	12/1	0.566	201	1000' reels
12/4	Solid	10/1	12/1	0.571	200	1000' reels
12/4	Solid	8/1	12/1	0.596	239	1000' reels
10/1	Solid	8/1	10/1	0.556	182	1000' reels
10/2	Solid	8/1	10/1	0.596	222	1000' reels
10/3	Solid	8/1	10/1	0.646	260	1000' reels
10/4	Solid	8/1	10/1	0.686	301	1000' reels
12/1	Stranded	10/1	12/1	0.471	124	1000' reels
12/2	Stranded	10/1	12/1	0.516	152	1000' reels
12/3	Stranded	10/1	12/1	0.551	179	1000' reels
12/3	Stranded	8/1	12/1	0.586	205	1000' reels
12/4	Stranded	10/1	12/1	0.591	206	1000' reels
10/2	Stranded	8/1	10/1	0.606	226	1000' reels
10/3	Stranded	8/1	10/1	0.656	266	1000' reels
10/4	Stranded	8/1	10/1	0.706	308	1000' reels

Consult Section 310.15 of the NEC for ampacities. The above data is approximate and subject to normal manufacturing tolerances.

**Standard Conductor Color Coding**

**Features:**

Installation costs reduced up to 50% over conduit 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. 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.

Oversized Neutrals	Color	Phase Conductors	120/208Y
1	White	1	Black
2	White/White - Orange Stripe	2	Black/Red
		3	Black/Red/Blue
		4	Black/Red/Blue/Orange

Additional colors available subject to ERQ

Ground	Color
1	Green

**SmartColorID® Legend:**



See page 104 for complete legend