

TYPE MC - ALUMINUM CONDUCTOR - STEEL ARMOR - 600V/1000V

XHHW-2 CONDUCTORS (6 AWG - 4/0 AWG)

ENGINEERING SPECIFICATIONS

Standards

Underwriters Laboratories® Standards UL-44, UL-1569, UL-1581, UL-1685, UL-2556 for type MC; Federal Specification AA-56544; NFPA 70 (NEC®) Article 330; NEMA RV-1, NEMA WC70/ICEA S-95-658; UL-1685 Method 1 (70,000 Btu/hr) Flame Test; Compact Stranded Aluminum Alloy 8000 Series per ASTM B800, ASTM B801, ASTM B836; RoHS Compliant; ARRA 2009 Section 1605 "Buy American" Compliant; MasterSpec Division 26 Sections 260519, 260523; VW-1 or IEEE 1202 (FT4) optional. UL Listing #E-301130



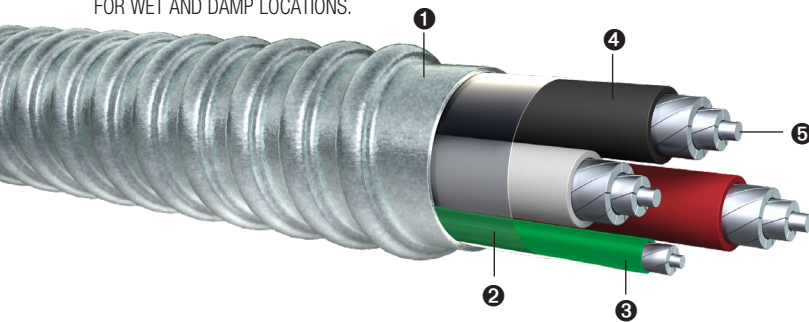
APPLICATIONS

Type MC shall be permitted as follows:

- Permitted use for services, feeders, and branch circuits in residential, commercial, industrial, and non-patient care areas of health care facilities (NEC 517.12);
- Acceptable for power, lighting, control, and signal circuits;
- Allowable in concealed or exposed installations;
- Permitted use in dry locations or when 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);
- Permitted as ariel cable on a messenger (NEC 396.10(A));
- Allowable installations in approved raceways and cable trays (NEC 392);
- Suitable for installations 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 6 AWG through 750 KCMIL, Encore Wire's Metal-Clad Cable is constructed with Compact Stranded Conductors, Aluminum Alloy 8000 Series per ASTM B800, ASTM B801 and ASTM B836. Type XHHW-2 conductors rated 90°C dry locations. Sizes 6 AWG through 750 KCMIL contain a green insulated aluminum grounding conductor. All conductors are cabled together with separator tape, which contains the identification print legend. Interlocked steel armor is applied over the assembly. AVAILABLE WITH A PVC JACKET FOR WET AND DAMP LOCATIONS.



- ❶ Interlocked Steel Armor
- ❷ Separator Tape
- ❸ Green Insulated Compact Stranded Ground Conductor, AA-8000 Series
- ❹ XLPE Insulation
- ❺ Compact Stranded Conductor, AA-8000 Series

Phase Conductors			Ground Conductor			Outside Diameter over Armor (in)	Approximate Net Weight (lbs/1000 ft)	Allowable Ampacity (Amps) ¹		Standard Packaging (ft) Reels
AWG or KCMIL/ No. of Conductors	No. of Strands	XLPE Thickness (in)	Green Ground (AWG)	No. of Strands	Insulation Thickness			75°C	90°C	
6/3	7	0.045	6	7	0.045	0.842	338	50	55	500' Reel
6/4	7	0.045	6	7	0.045	0.959	534	50	55	500' Reel
4/3	7	0.045	6	7	0.045	0.965	550	65	75	500' Reel
4/4	7	0.045	6	7	0.045	1.055	642	65	75	500' Reel
3/3	7	0.045	6	7	0.045	1.012	605	75	85	500' Reel
3/4	7	0.045	6	7	0.045	1.110	712	75	85	500' Reel
2/3	7	0.045	4	7	0.045	1.091	699	90	100	500' Reel
2/4	7	0.045	4	7	0.045	1.199	825	90	100	500' Reel
1/3	8	0.055	4	7	0.045	1.187	808	100	115	1000' Reel
1/4	8	0.055	4	7	0.045	1.311	964	100	115	1000' Reel
1/0-3	10	0.055	4	7	0.045	1.258	908	120	135	1000' Reel
1/0-4	10	0.055	4	7	0.045	1.393	1091	120	135	1000' Reel
2/0-3	12	0.055	4	7	0.045	1.335	1026	135	150	1000' Reel
2/0-4	12	0.055	4	7	0.045	1.481	1244	135	150	1000' Reel
3/0-3	15	0.055	4	7	0.045	1.427	1172	155	175	1000' Reel
3/0-4	15	0.055	4	7	0.045	1.587	1431	155	175	1000' Reel
4/0-3	19	0.055	2	7	0.045	1.552	1383	180	205	1000' Reel
4/0-4	19	0.055	2	7	0.045	1.728	1693	180	205	1000' Reel

Standard Conductor Color Coding

No.	120V/208V/240V
2	Black/White
3	Black/Red/White
4	Black/Red/Blue/White
Ground	Green

No.	277V/480V
2	Brown/Gray
3	Brown/Orange/Gray
4	Brown/Orange/Yellow/Gray
Ground	Green

FEATURES

Installation costs reduced up to 50% over conduit and wire; for ease of installation and pulling, cable is reverse wound on reels

NOTE

MC Cable Connectors are required to be listed for use with MC Cable per 330.6. Anti-Short Bushings are not required.

¹ Ampacity of conductors are based on the National Electrical Code (NFPA 70) Table 310.16. See 110.14(C), 240.4(D) and 310.15(B)&(C) for other limitations where applicable.

NEC Article 310.15(B)(1) for ambient temperature correction factors for temperatures other than 30°C (86°F).
 NEC Table 310.15(C)(1) for ampacity adjustment factors, as applicable, for more than three current-carrying conductors.
 NEC Article 110.14(C) for conductor temperature limitations for equipment rated 100 amps or less, or for equipment rated for more than 100 amps.
 The above data is approximate and subject to manufacturing tolerances.

TYPE MC - ALUMINUM CONDUCTOR - STEEL ARMOR - 600V/1000V XHHW-2 CONDUCTORS (250 KCMIL - 750 KCMIL)

ENGINEERING SPECIFICATIONS

Standards

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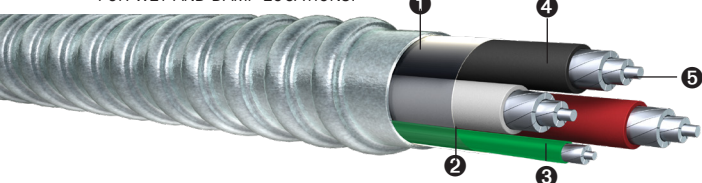
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- 1 Interlocked Steel Armor
- 2 Separator Tape
- 3 Green Insulated Compact Stranded Ground Conductor, AA-8000 Series
- 4 XLPE Insulation
- 5 Compact Stranded Conductor, AA-8000 Series

Phase Conductors			Ground Conductor			Outside Diameter over Armor (in)	Approximate Net Weight (lbs/1000 ft)	Allowable Ampacity (Amps) ¹		Standard Packaging (ft)
AWG or KCMIL/ No. of Conductors	No. of Strands	Insulation Thickness (in)	Green Ground (AWG)	No. of Strands	Insulation Thickness (in)			75°C	90°C	
250/3	22	0.065	2	7	0.045	1.678	1579	205	230	1000' Reel
250/3	22	0.065	1	8	0.055	1.701	1612	205	230	1000' Reel
250/4	22	0.065	1	8	0.055	1.898	1979	205	230	1000' Reel
300/3	21	0.065	1	8	0.055	1.798	1806	230	260	1000' Reel
300/4	21	0.065	1	8	0.055	2.061	2458	230	260	1000' Reel
350/3	24	0.065	1	8	0.055	1.888	1996	250	280	1000' Reel
350/4	24	0.065	1/0	10	0.055	2.180	2748	250	280	1000' Reel
350/4	24	0.065	4/0	19	0.055	2.248	2892	250	280	1000' Reel
400/3	27	0.065	1	8	0.055	1.973	2183	270	305	1000' Reel
400/4	27	0.065	1/0	10	0.055	2.276	3001	270	305	1000' Reel
400/4	27	0.065	3/0	15	0.055	2.317	3087	270	305	1000' Reel
500/3	34	0.065	1	8	0.055	2.172	2783	310	350	1000' Reel
500/3	34	0.065	2/0	12	0.055	2.206	2853	310	350	1000' Reel
500/3	34	0.065	3/0	15	0.055	2.226	2900	310	350	1000' Reel
500/3	34	0.065	250	22	0.065	2.284	3023	310	350	1000' Reel
500/4	34	0.065	2/0	12	0.055	2.465	3527	310	350	1000' Reel
500/4	34	0.065	3/0	15	0.055	2.487	3575	310	350	1000' Reel
500/4	34	0.065	250	22	0.065	2.544	3697	310	350	1000' Reel
600/3	41	0.080	1/0	10	0.055	2.402	3291	340	385	1000' Reel
600/3	41	0.080	4/0	19	0.055	2.456	3428	340	385	1000' Reel
600/3	41	0.080	350	24	0.065	2.534	3620	340	385	1000' Reel
600/3	41	0.080	400	27	0.065	2.557	3682	340	385	1000' Reel
600/4	41	0.080	3/0	15	0.055	2.723	4184	340	385	1000' Reel
750/3	47	0.080	1/0	10	0.055	2.607	3849	385	435	1000' Reel
750/3	47	0.080	3/0	15	0.055	2.619	3920	385	435	1000' Reel
750/4	47	0.080	3/0	15	0.055	2.935	4896	385	435	1000' Reel
750/4	47	0.080	750	47	0.080	3.200	5651	385	435	1000' Reel

Standard Conductor Color Coding

No.	120V/208V/240V
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Ground	Green

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