

TYPE MC - ALUMINUM CONDUCTOR - ALUMINUM 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/CEA 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; ARRA 2009 Section 1605 "Buy American" Compliant; RoHS Compliant; MasterSpec Division 26 Sections 260519, 260523; VW-1 or IEEE 1202 (FT4) optional. UL Listing #E-301130



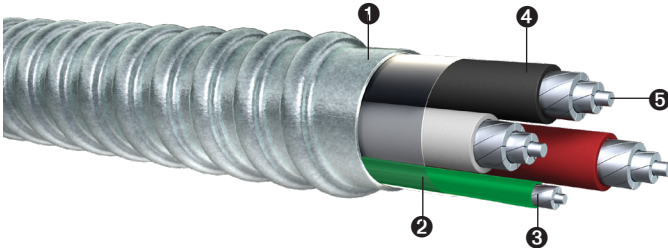
APPLICATIONS

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 aluminum armor is applied over the assembly. AVAILABLE WITH LIGHTWEIGHT GALVANIZED STEEL ARMOR. AVAILABLE WITH A PVC JACKET FOR WET AND DAMP LOCATIONS.



- 1 Interlocked Aluminum Armor
- 2 Separator Tape
- 3 Green 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	XLPE Thickness (in)	Green Ground (AWG)	No. of Strands	Insulation Thickness (in)			75°C	90°C	
6/3	7	0.045	6	7	0.045	0.842	218	50	55	500' Reel
6/4	7	0.045	6	7	0.045	0.959	311	50	55	500' Reel
4/3	7	0.045	6	7	0.045	0.965	325	65	75	500' Reel
4/4	7	0.045	6	7	0.045	1.055	394	65	75	500' Reel
3/3	7	0.045	6	7	0.045	1.012	367	75	85	500' Reel
3/4	7	0.045	6	7	0.045	1.110	448	75	85	500' Reel
2/3	7	0.045	4	7	0.045	1.091	440	90	100	500' Reel
2/4	7	0.045	4	7	0.045	1.199	538	90	100	500' Reel
1/3	8	0.055	4	7	0.045	1.187	525	100	115	1000' Reel
1/4	8	0.055	4	7	0.045	1.311	648	100	115	1000' Reel
1/0-3	10	0.055	4	7	0.045	1.258	605	120	135	1000' Reel
1/0-4	10	0.055	4	7	0.045	1.393	753	120	135	1000' Reel
2/0-3	12	0.055	4	7	0.045	1.335	703	135	150	1000' Reel
2/0-4	12	0.055	4	7	0.045	1.481	882	135	150	1000' Reel
3/0-3	15	0.055	4	7	0.045	1.427	825	155	175	1000' Reel
3/0-4	15	0.055	4	7	0.045	1.587	1041	155	175	1000' Reel
4/0-3	19	0.055	2	7	0.045	1.552	1002	180	205	1000' Reel
4/0-4	19	0.055	2	7	0.045	1.728	1239	180	205	1000' Reel

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.

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

Additional colors available subject to ERQ

FEATURES

Installation costs reduced up to 50% over conduit and wire; aluminum armor weight is up to 45% less than steel; for ease of installation and pulling, cable is reverse wound on reels.

NOTE

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

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

ENGINEERING SPECIFICATIONS

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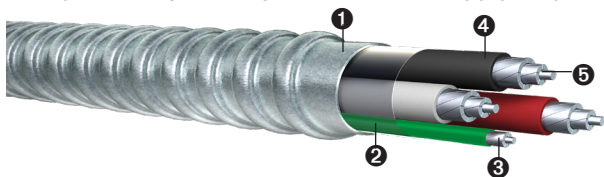
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Phase Conductors			Ground Conductor			Outside Diameter over Armor (in)	Approximate Net Weight (lbs/1000 ft)	Allowable Ampacity (Amps) ¹		Standard Packaging (ft)
AWG or KCMIL/No. of Conductors	No. of Strands	XLPE Thickness (in)	Green Ground (AWG)	No. of Strands	Insulation Thickness (in)			75°C	90°C	
250/3	22	0.065	2	7	0.045	1.678	1164.46	205	230	1000' Reel
250/3	22	0.065	1	8	0.055	1.701	1191.29	205	230	1000' Reel
250/4	22	0.065	1	8	0.055	1.898	1505.81	205	230	1000' Reel
300/3	21	0.065	1	8	0.055	1.798	1359.92	230	260	1000' Reel
300/4	21	0.065	1	8	0.055	2.061	1806.09	230	260	1000' Reel
350/3	24	0.065	1	8	0.055	1.888	1525.84	250	280	1000' Reel
350/4	24	0.065	1/0	10	0.055	2.180	2055.11	250	280	1000' Reel
350/4	24	0.065	4/0	19	0.055	2.248	2176.89	250	280	1000' Reel
400/3	27	0.065	1	8	0.055	1.973	1690.26	270	305	1000' Reel
400/4	27	0.065	1/0	10	0.055	2.276	2275.64	270	305	1000' Reel
400/4	27	0.065	3/0	15	0.055	2.317	2348.10	270	305	1000' Reel
500/3	34	0.065	1	8	0.055	2.172	2093.68	310	350	1000' Reel
500/3	34	0.065	2/0	12	0.055	2.206	2152.19	310	350	1000' Reel
500/3	34	0.065	3/0	15	0.055	2.226	2191.76	310	350	1000' Reel
500/3	34	0.065	250	22	0.065	2.284	2294.84	310	350	1000' Reel
500/4	34	0.065	2/0	12	0.055	2.465	2738.13	310	350	1000' Reel
500/4	34	0.065	3/0	15	0.055	2.487	2778.07	310	350	1000' Reel
500/4	34	0.065	250	22	0.065	2.544	2880.97	310	350	1000' Reel
600/3	41	0.080	1/0	10	0.055	2.402	2523.06	340	385	1000' Reel
600/3	41	0.080	4/0	19	0.055	2.456	2642.34	340	385	1000' Reel
600/3	41	0.080	350	24	0.065	2.534	2807.09	340	385	1000' Reel
600/3	41	0.080	400	27	0.065	2.557	2862.04	340	385	1000' Reel
600/4	41	0.080	3/0	15	0.055	2.723	3306.90	340	385	1000' Reel
750/3	47	0.080	1/0	10	0.055	2.607	3011.12	385	435	1000' Reel
750/3	47	0.080	3/0	15	0.055	2.619	3078.40	385	435	1000' Reel
750/4	47	0.080	3/0	15	0.055	2.935	3946.68	385	435	1000' Reel
750/4	47	0.080	750	47	0.080	3.200	4612.25	385	435	1000' Reel

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.

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