

TYPE MC - ALUMINUM CONDUCTOR - STEEL ARMOR - 600V

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; 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; AARRA 2009 Section 1605 "Buy American" Compliant; MasterSpec Division 26 Sections 260519, 260523; VW-1 or IEEE 1202 (FT4) optional. UL Listing #E-301130



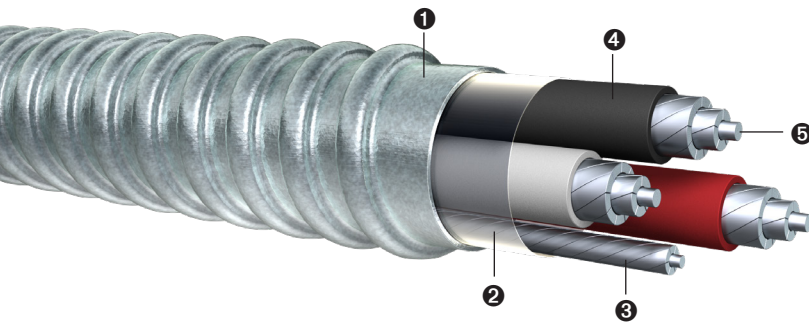
APPLICATIONS

Type MC shall be permitted as follows:

- Permitted use for services, feeders, and branch circuits in residential, commercial and industrial locations;
- Permitted for use in 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);
- 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 and listed for use in UL 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. Sizes 6 AWG through 750 KCMIL contain a bare aluminum ground wire. All conductors are cabled together with separator tape, which contains the identification print legend. Interlocked steel armor is applied over the assembly.



- 1 Interlocked Steel Armor
- 2 Separator Tape
- 3 Bare 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)	Bare Ground (AWG)	No. of Strands			75°C	90°C	Coils	Reels
6/3	7	.045	6	7	0.8982	472.65	50	55	125'	500' 1000'
6/4	7	.045	6	7	0.9723	542.57	50	55	125'	500' 1000'
4/3	7	.045	6	7	0.9760	558.18	65	75	100'	500'
4/4	7	.045	6	7	1.0544	647.33	65	75	100'	500'
3/3	7	.045	6	7	1.0298	613.67	75	85	100'	500'
3/4	7	.045	6	7	1.1248	720.78	75	85	100'	500'
2/3	7	.045	4	7	435.97	725.43	90	100	100'	500'
2/4	7	.045	4	7	1.2372	847.44	90	100	100'	500'
1/3	8	.055	4	7	1.2544	844.15	100	115	-	1000'
1/4	8	.055	4	7	1.3603	995.63	100	115	-	1000'
1/0-3	10	.055	4	7	1.3541	957.56	120	135	-	1000'
1/0-4	10	.055	4	7	1.4496	1127.95	120	135	-	1000'
2/0-3	12	.055	4	7	1.4203	1072.15	135	150	-	1000'
2/0-4	12	.055	4	7	1.5462	1284.37	135	150	-	1000'
3/0-3	15	.055	4	7	1.5216	1227.09	155	175	-	1000'
3/0-4	15	.055	4	7	1.6597	1481.63	155	175	-	1000'
4/0-3	19	.055	2	7	1.7337	2060.64	180	205	-	1000'
4/0-4	19	.055	2	7	1.8752	2136.51	180	205	-	1000'

¹ Ampacity of conductors are based on the National Electrical Code (NFPA 70) Table 310.15(B)(16). See 110.14(C), 240.4(D) and 310.15(B) for other limitations where applicable.

NEC Article 310.15(B)(2)(a) for ambient temperature correction factors for temperatures other than 30°C (86°F).

NEC Table 310.15(B)(3)(a) 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	Bare

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

Additional colors available subject to ERQ

FEATURES

Installation costs reduced up to 50% over conduit and wire; while not required by Section 330.40, insulating anti-short bushings are supplied with each reel; for ease of installation and pulling, cable is reverse wound on reels.

TYPE MC - ALUMINUM CONDUCTOR - STEEL ARMOR - 600V

XHHW-2 CONDUCTORS (250 KCMIL - 750 KCMIL)

ENGINEERING SPECIFICATIONS

Standards

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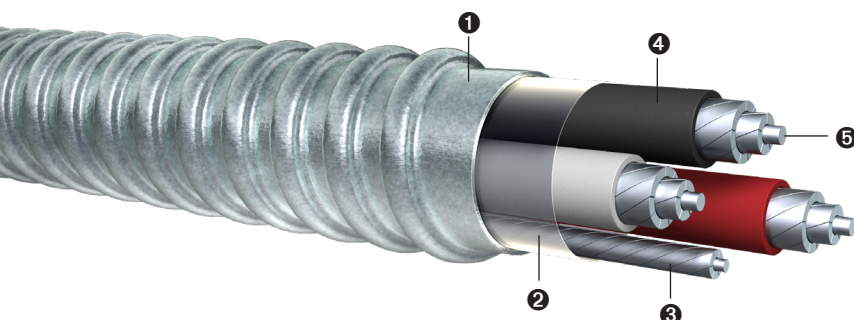
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AWG or KCMIL/ No. of Conductors	No. of Strands	XLPE Thickness (in)	Bare Ground (AWG)	No. of Strands			75°C	90°C	
250/3	22	.065	2	7	1.8788	1960.83	205	230	1000' Reels
250/3	22	.065	3/0	15	1.9229	2082.84	205	230	1000' Reels
250/4	22	.065	1	8	1.9921	2332.55	205	230	1000' Reels
300/3	21	.065	1	8	1.9815	2190.28	230	260	1000' Reels
300/4	21	.065	1	8	2.1128	2607.00	230	260	1000' Reels
350/3	24	.065	1	8	2.0506	2262.67	250	280	1000' Reels
350/4	24	.065	1/0	10	2.2738	2792.43	250	280	1000' Reels
400/3	27	.065	1	8	2.1433	2464.72	270	305	1000' Reels
400/4	27	.065	1/0	10	2.3676	3045.93	270	305	1000' Reels
500/3	34	.065	1	8	2.3222	2758.27	310	350	1000' Reels
500/3	34	.065	2/0	12	2.4115	2847.72	310	350	1000' Reels
500/3	34	.065	3/0	15	2.5086	2927.74	310	350	1000' Reels
500/4	34	.065	3/0	15	2.5335	3482.43	310	350	1000' Reels
600/3	41	.080	1	8	2.5660	3238.30	340	385	1000' Reels
600/3	41	.080	1/0	10	2.7180	3332.53	340	385	1000' Reels
600/4	41	.080	3/0	15	2.8818	4133.77	340	385	1000' Reels
750/3	47	.080	1/0	10	2.7345	3794.91	385	435	1000' Reels
750/3	47	.080	3/0	15	2.8880	3927.88	385	435	1000' Reels
750/4	47	.080	3/0	15	3.1242	4857.08	385	435	1000' Reels
750/4	47	.080	750	47	3.2066	5445.37	385	435	1000' Reels

¹ Ampacity of conductors are based on the National Electrical Code (NFPA 70) Table 310.15(B)(16). See 110.14(C), 240.4(D) and 310.15(B) for other limitations where applicable.

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