

# TYPE MC - ALUMINUM CONDUCTOR - STEEL ARMOR - PVC JACKET - 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-59544; NFPA 70 (NEC®) Article 330; NEMA RV-1, NEMA WC70/IECA 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; WW-1 or IEEE 1202 (FT4) optional. UL Listing #E-301130



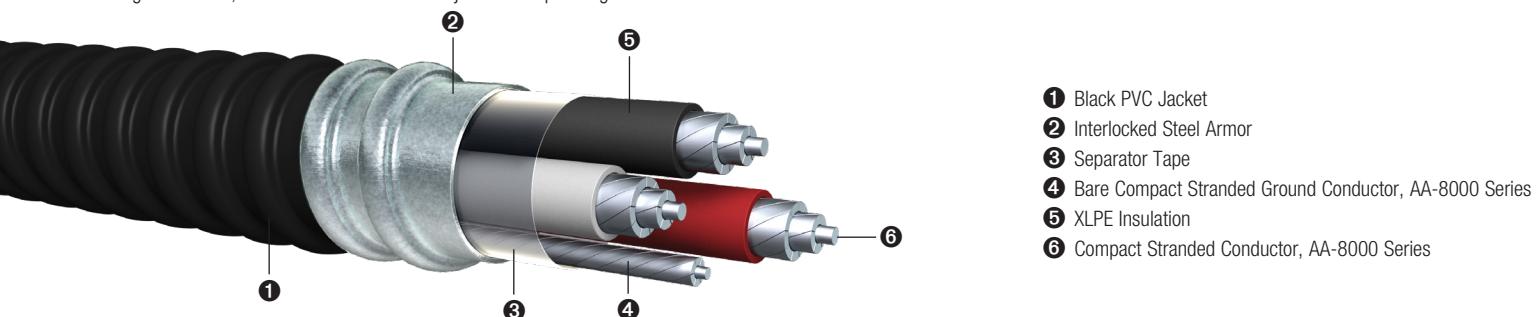
### APPLICATIONS

Type MC cable shall be permitted as follows:

- Permitted use for services, feeders, and branch circuits in residential, commercial, industrial, and non-patient care area/space of health care facilities;
- Permitted for direct burial in the earth or when embedded in concrete per NEC 330.12(2)(a);
- Acceptable for power, lighting, control, and signal units;
- Allowable in concealed or exposed installations;
- Permitted in wet locations per NEC 330.10(A)(11);
- 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));
- For use with branch circuits to swimming pool, hot tubs, and spa applications per 680.14 and 330.12(2)(a) and (b);
- 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, to form the cabled core. Interlocked crush-resistant galvanized steel armor is applied over the assembly. Overall sunlight-resistant, flame-retardant black PVC jacket with print legend.



Phase Conductors			Ground Conductor		Outside Diameter over Armor (in)	PVC Jacket Thickness (in)	Outside Diameter over PVC Jacket (in)	Approximate Net Weight (lbs/1000 ft)	Allowable Ampacity (Amps) <sup>1</sup>		Standard Packaging (ft)	
AWG or KCMIL/No. of Conductors	No. of Strands	Insulation Thickness (in)	Bare Ground (AWG)	No. of Strands					75°C	90°C	Coils	Reels
6/3	7	0.045	6	7	0.817	0.050	0.917	427	50	55	250'	1000'
6/4	7	0.045	6	7	0.860	0.050	0.960	482	50	55	250'	1000'
4/3	7	0.045	6	7	0.898	0.050	0.998	511	65	75	250'	1000'
4/4	7	0.045	6	7	0.966	0.050	1.066	594	65	75	250'	1000'
3/3	7	0.045	6	7	0.948	0.050	1.048	563	75	85	250'	1000'
3/4	7	0.045	6	7	1.024	0.050	1.124	661	75	85	250'	1000'
2/3	7	0.045	4	7	1.002	0.050	1.102	647	90	100	250'	1000'
2/4	7	0.045	4	7	1.097	0.050	1.197	767	90	100	250'	1000'
1/3	8	0.055	4	7	1.109	0.050	1.209	761	100	115	250'	1000'
1/4	8	0.055	4	7	1.213	0.050	1.313	908	100	115	250'	1000'
1/0-3	10	0.055	4	7	1.191	0.050	1.291	829	120	135	250'	1000'
1/0-4	10	0.055	4	7	1.307	0.050	1.407	999	120	135	250'	1000'
2/0-3	12	0.055	4	7	1.278	0.050	1.378	946	135	150	250'	1000'
2/0-4	12	0.055	4	7	1.403	0.050	1.503	1150	135	150	-	1000'
3/0-3	15	0.055	4	7	1.377	0.050	1.477	1094	155	175	-	1000'
3/0-4	15	0.055	4	7	1.519	0.060	1.639	1341	155	175	-	1000'
4/0-3	19	0.055	2	7	1.491	0.060	1.611	1291	180	205	-	1000'
4/0-4	19	0.055	2	7	1.645	0.060	1.765	1587	180	205	-	1000'

<sup>1</sup> 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 - PVC JACKET - 600V/1000V

## XHHW-2 CONDUCTORS (250 KCMIL - 750 KCMIL)

### ENGINEERING SPECIFICATIONS

#### Standards

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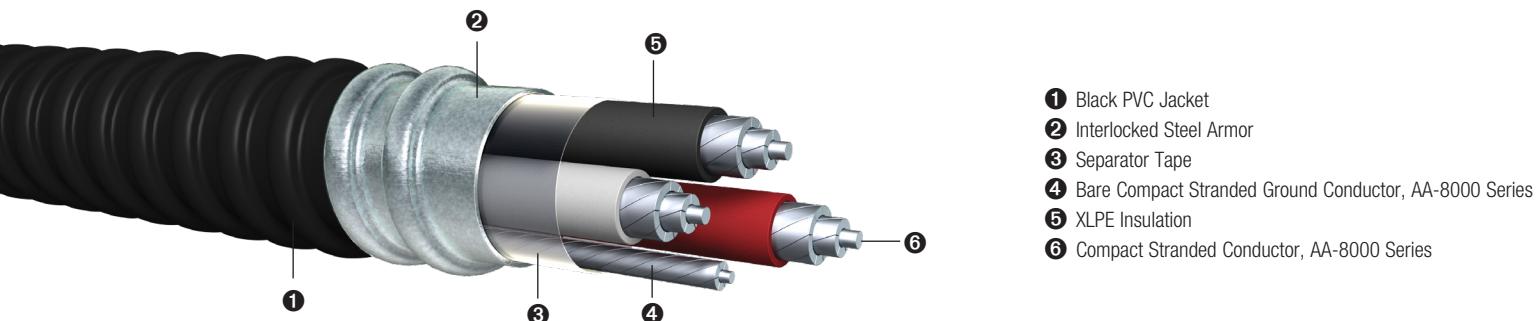
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AWG or KCMIL/ No. of Conductors	Phase Conductors		Ground Conductor		Outside Diameter over Armor (in)	PVC Jacket Thickness (in)	Outside Diameter over PVC Jacket (in)	Approximate Net Weight (lbs/1000 ft)	Allowable Ampacity (Amps) <sup>1</sup>		Standard Packaging (ft)
	No. of Strands	Insulation Thickness (in)	Bare Ground (AWG)	No. of Strands					75°C	90°C	
250/3	22	0.065	2	7	1.631	0.060	1.751	1490	205	230	1000' Reels
250/3	22	0.065	3/0	15	1.671	0.060	1.791	1585	205	230	1000' Reels
250/4	22	0.065	1	8	1.801	0.060	1.921	2166	205	230	1000' Reels
300/3	21	0.065	1	8	1.739	0.060	1.859	1996	230	260	1000' Reels
300/4	21	0.065	1	8	1.922	0.060	2.042	2433	230	260	1000' Reels
350/3	24	0.065	1	8	1.838	0.060	1.958	2207	250	280	1000' Reels
350/4	24	0.065	1/0	10	2.031	0.060	2.151	2724	250	280	1000' Reels
400/3	27	0.065	1	8	1.928	0.060	2.048	2410	270	305	1000' Reels
400/4	27	0.065	1/0	10	2.125	0.060	2.245	2979	270	305	1000' Reels
500/3	34	0.065	1	8	2.094	0.060	2.214	2805	310	350	1000' Reels
500/3	34	0.065	2/0	12	2.105	0.060	2.225	2857	310	350	1000' Reels
500/3	34	0.065	3/0	15	2.114	0.060	2.234	2896	310	350	1000' Reels
500/4	34	0.065	3/0	15	2.320	0.075	2.470	3552	310	350	1000' Reels
600/3	41	0.065	1	8	2.323	0.075	2.473	3295	340	385	1000' Reels
600/3	41	0.065	1/0	10	2.329	0.075	2.479	3319	340	385	1000' Reels
600/4	41	0.065	3/0	15	2.584	0.075	2.734	4180	340	385	1000' Reels
750/3	47	0.080	1/0	10	2.532	0.075	2.682	3885	385	435	1000' Reels
750/3	47	0.080	3/0	15	2.544	0.075	2.694	3953	385	435	1000' Reels
750/4	47	0.080	3/0	15	2.810	0.075	2.960	4908	385	435	1000' Reels
750/4	47	0.080	750	47	3.205	0.085	3.375	5677	385	435	1000' Reels

#### Standard Conductor Color Coding

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