TYPE MC - ALUMINUM CONDUCTOR - ALUMINUM 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-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; 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

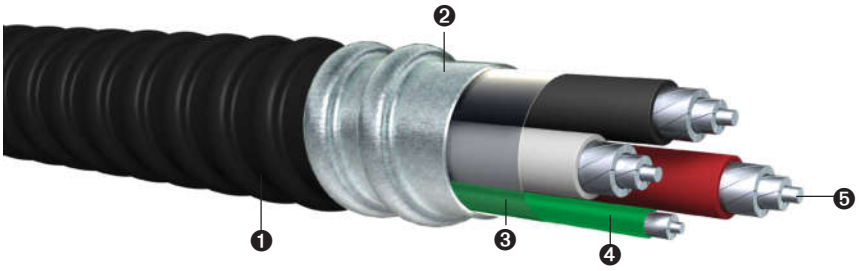
APPLICATIONS

Type MC 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 (NEC 517.12);
- 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);
- 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));
- 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;
- 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 or wet 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. Overall sunlight-resistant, flame-retardant black PVC jacket. AVAILABLE WITH LIGHTWEIGHT GALVANIZED STEEL ARMOR.



1. Black PVC Jacket
2. Interlocked Aluminum Armor
3. Separator Tape
4. Green Insulated Compact Stranded Ground Conductor, AA-8000 Series
5. XHHW-2 Compact Stranded Conductor, AA-8000 Series

Phase Conductors			Ground Conductor			Diameter over Armor (in)	PVC Jacket Thickness (in)	Diameter over PVC Jacket (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	Coils	Reels
6/3	7	0.045	6	7	0.045	0.842	0.050	0.942	308	50	55	250	1000'
6/4	7	0.045	6	7	0.045	0.959	0.050	1.059	412	50	55	250	1000'
4/3	7	0.045	6	7	0.045	0.965	0.050	1.065	427	65	75	250	1000'
4/4	7	0.045	6	7	0.045	1.055	0.050	1.155	505	65	75	250	1000'
3/3	7	0.045	6	7	0.045	1.012	0.050	1.112	474	75	85	250	1000'
3/4	7	0.045	6	7	0.045	1.110	0.050	1.210	565	75	85	250	1000'
2/3	7	0.045	4	7	0.045	1.091	0.050	1.191	555	90	100	250	1000'
2/4	7	0.045	4	7	0.045	1.199	0.050	1.299	663	90	100	250	1000'
1/3	8	0.055	4	7	0.045	1.187	0.050	1.287	649	100	115	250	1000'
1/4	8	0.055	4	7	0.045	1.311	0.050	1.411	784	100	115	250	1000'
1/0-3	10	0.055	4	7	0.045	1.258	0.050	1.358	736	120	135	250	1000'
1/0-4	10	0.055	4	7	0.045	1.393	0.050	1.493	898	120	135	250	1000'
2/0-3	12	0.055	4	7	0.045	1.335	0.050	1.435	842	135	150	250	1000'
2/0-4	12	0.055	4	7	0.045	1.481	0.050	1.581	1036	135	150	-	1000'
3/0-3	15	0.055	4	7	0.045	1.427	0.050	1.527	973	155	175	-	1000'
3/0-4	15	0.055	4	7	0.045	1.587	0.060	1.707	1236	155	175	-	1000'
4/0-3	19	0.055	2	7	0.045	1.552	0.060	1.672	1193	180	205	-	1000'
4/0-4	19	0.055	2	7	0.045	1.728	0.060	1.848	1451	180	205	-	1000'

[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.

PRINT LEGEND: ENCORE WIRE CORP (SIZE) G/G AA-8000 AL CDRS TYPE MC W/PVC JACKET 600V/1000 V (UL) TYPE XHHW-2 CDRS SUN-RES IEEE1202/FT4 DIR-BUR DATE/TIME/OPER/QC MACHINE

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; 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 - PVC JACKET - 600V/1000V
XHHW-2 CONDUCTORS (250 KCMIL - 750 KCMIL)

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; 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

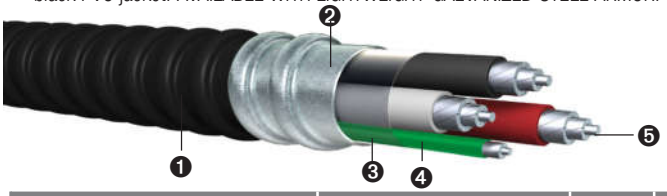
APPLICATIONS

Type MC 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 (NEC 517.12);
- 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);
- 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));
- 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;
- 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 or wet 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. Overall sunlight-resistant, flame-retardant black PVC jacket. AVAILABLE WITH LIGHTWEIGHT GALVANIZED STEEL ARMOR.



1. Black PVC Jacket
2. Interlocked Aluminum Armor
3. Separator Tape
4. Green Insulated Compact Stranded Ground Conductor, AA-8000 Series
5. XHHW-2 Compact Stranded Conductor, AA-8000 Series

Phase Conductors			Ground Conductor			Diameter over Armor (in)	PVC Jacket Thickness (in)	Diameter over PVC Jacket (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	0.060	1.798	1371	205	230	1000' Reels
250/3	22	0.065	1	8	0.055	1.701	0.060	1.821	1400	205	230	1000' Reels
250/4	22	0.065	1	8	0.055	1.898	0.060	2.018	1738	205	230	1000' Reels
300/3	21	0.065	1	8	0.055	1.798	0.060	1.918	1581	230	260	1000' Reels
300/4	21	0.065	1	8	0.055	2.061	0.060	2.181	2058	230	260	1000' Reels
350/3	24	0.065	1	8	0.055	1.888	0.060	2.008	1757	250	280	1000' Reels
350/4	24	0.065	1/0	10	0.055	2.180	0.060	2.300	2321	250	280	1000' Reels
350/4	24	0.065	4/0	19	0.055	2.248	0.060	2.368	2451	250	280	1000' Reels
400/3	27	0.065	1	8	0.055	1.973	0.060	2.093	1932	270	305	1000' Reels
400/4	27	0.065	1/0	10	0.055	2.276	0.075	2.426	2619	270	305	1000' Reels
400/4	27	0.065	3/0	15	0.055	2.317	0.075	2.467	2697	270	305	1000' Reels
500/3	34	0.065	1	8	0.055	2.172	0.060	2.292	2359	310	350	1000' Reels
500/3	34	0.065	2/0	12	0.055	2.206	0.060	2.326	2421	310	350	1000' Reels
500/3	34	0.065	3/0	15	0.055	2.226	0.060	2.346	2463	310	350	1000' Reels
500/3	34	0.065	250	22	0.065	2.284	0.075	2.434	2639	310	350	1000' Reels
500/4	34	0.065	2/0	12	0.055	2.465	0.075	2.615	3109	310	350	1000' Reels
500/4	34	0.065	3/0	15	0.055	2.487	0.075	2.637	3152	310	350	1000' Reels
500/4	34	0.065	250	22	0.065	2.544	0.075	2.694	3263	310	350	1000' Reels
600/3	41	0.080	1/0	10	0.055	2.402	0.075	2.552	2885	340	385	1000' Reels
600/3	41	0.080	4/0	19	0.055	2.456	0.075	2.606	3012	340	385	1000' Reels
600/3	41	0.080	350	24	0.065	2.534	0.075	2.684	3188	340	385	1000' Reels
600/3	41	0.080	400	27	0.065	2.557	0.075	2.707	3246	340	385	1000' Reels
600/4	41	0.080	3/0	15	0.055	2.723	0.075	2.873	3715	340	385	1000' Reels
750/3	47	0.080	1/0	10	0.055	2.607	0.075	2.757	3402	385	435	1000' Reels
750/3	47	0.080	3/0	15	0.055	2.619	0.075	2.769	3471	385	435	1000' Reels
750/4	47	0.080	3/0	15	0.055	2.935	0.075	3.085	4386	385	435	1000' Reels
750/4	47	0.080	750	47	0.080	3.200	0.085	3.370	5151	385	435	1000' Reels

[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.

PRINT LEGEND: ENCORE WIRE CORP (SIZE) G/G AA-8000 AL CDRS TYPE MC W/PVC JACKET 600V/1000 V (UL) TYPE XHHW-2 CDRS SUN-RES IEEE1202/FT4 DIR-BUR DATE/TIME/OPER/QC MACHINE

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; 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.