



ENERGEX MC - XLPE Insulated

Aluminum Interlock Armored Power Feeder Cable UL Type MC, 600 V, 90°C rated - Unjacketed 3 or 4 aluminum conductors - XLPE insulated with bare aluminum ground wire - Lead Free

Applications

Unjacketed aluminum conductor MC cable is suitable and allowed by the NEC for use in the following applications:

- for power, lighting and control circuits and as branch circuits and power feeders in industrial, commercial, institutional and residential installations up to 600 volts.
- fished or embedded in plaster and concrete except in damp or wet locations.
- used as an aerial cable when fixed to a messenger support cable
- used in concealed or exposed applications.
- installed in cable trays and other raceways.
- in Class I and II, Division 2 as well as Class III, Division 1 and 2 hazardous locations.
- under raised floors of information technology rooms.
- Environmental air-handling spaces per NEC 300.22 (C).
- Places of Assembly per NEC 518.4 and theaters per NEC 520.5.

Bending Radius

Fixed position: 7 x cable overall diameter

During pulling: 12 x cable overall diameter

Construction

Conductor: compact stranded AA-8000 series aluminum alloy per ASTM B801 or ASTM B836 and ASTM B800.

Insulation: cross linked polyethylene (XLPE) type XHHW-2 per UL 44.

Ground wire: bare compact stranded AA-8000 series aluminum.

Assembly: insulated conductors are cabled with a bare ground wire, interstices are filled with suitable non-hygroscopic fillers, as required. A binder tape of synthetic material assembles the core in an essentially round configuration.

Armor: interlocking aluminum tape armor applied directly over the core.

Conductor Identification

Sizes #6 AWG to 500 kcmil:
3/C black, red, white
4/C black, red, white, blue

Specifications

- Meets UL 44, XHHW-2 600V conductors
- Meets UL 1569 requirements for Type MC, Metal Clad cables
- Designated Type MC per NEC Article 330

Product features

- Cables are UL listed as Type MC, 600 V
- UL listed XHHW-2 insulated conductors
- Cables pass UL 1685 and IEEE 383 vertical tray fire tests at 70,000 BTU/hr, ICEA T-29-520 fire test at 210,000 BTU/hr, IEEE 1202 and CSA FT4
- Cables exhibit a -25°C cold bend rating with suitable precautions
- Temperature rating of 90°C dry
- 130°C emergency rating and 250°C short circuit rating
- Excellent mechanical and physical properties
- Lead Free
- Suitable for use in cable tray
- Can be installed in hazardous locations as permitted

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3 Conductors with Bare Ground

Part Number (Color Coded Conductors)	Conductor Size	Insulation Thickness		Ground Wire Size	Nominal Diameter over Armor		Approximate Net Cable Weight		Ampacity (Amps)		
		AWG/kcmil	mils		mm	AWG	inches	mm	lb/kft	kg/km	60°C
603520	6	45	1.14	6	0.776	19.71	210	312	40	50	55
603521	4	45	1.14	6	0.877	22.26	285	424	55	65	75
603523	2	45	1.14	6	1.008	25.60	396	589	75	90	100
603524	1	55	1.40	4	1.124	28.54	503	749	85	100	115
603525	1/0	55	1.40	4	1.198	30.43	586	872	100	120	135
603526	2/0	55	1.40	4	1.285	32.63	687	1022	115	135	150
603527	3/0	55	1.40	4	1.388	35.24	814	1211	130	155	175
603528	4/0	55	1.40	2	1.499	38.07	992	1477	150	180	205
603529	250	65	1.65	2	1.781	45.23	1172	1744	170	205	230
603531	350	65	1.65	2	1.859	47.21	1521	2264	210	250	280
603542	400	65	1.65	1	1.951	49.55	1709	2544	225	270	305
603532	500	65	1.65	1	2.248	57.11	2249	3346	260	310	350

4 Conductors with Bare Ground

Part Number (Color Coded Conductors)	Conductor Size	Insulation Thickness		Ground Wire Size	Nominal Diameter over Armor		Approximate Net Cable Weight		Ampacity (Amps)		
		AWG/kcmil	mils		mm	AWG	inches	mm	lb/kft	kg/km	60°C
603533	6	45	1.14	6	0.852	21.64	269	400	40	50	55
603534	4	45	1.14	6	0.986	25.05	384	571	55	65	75
603535	2	45	1.14	6	1.110	28.20	499	742	75	90	100
603536	1	55	1.40	4	1.244	31.61	655	974	85	100	115
603537	1/0	55	1.40	4	1.327	33.71	767	1142	100	120	135
603538	2/0	55	1.40	4	1.416	35.98	903	1343	115	135	150
603539	3/0	55	1.40	4	1.538	39.06	1077	1603	130	155	175
603540	4/0	55	1.40	2	1.663	42.24	1313	1954	150	180	205
603541	250	65	1.65	2	1.951	49.55	1729	2573	170	205	230
603580	350	65	1.65	2	2.184	55.46	2231	3321	210	250	280
603543	400	65	1.65	1	2.287	58.08	2415	3593	225	270	305
603581	500	65	1.65	1	2.475	62.85	2881	4288	260	310	350

Bend Radius:
 Fixed Position: 7 x overall diameter
 During pulling: 12 x cable overall diameter

60°C - When terminated to equipment for circuits rated 100 amperes or less or marked for conductor sizes 6 through 1 AWG.
 75°C - When terminated to equipment for circuits rated over 100 amperes or marked for conductors larger than size 1 AWG.
 90°C - For ampacity derating purposes.

- Notes:
- Dimensions and weights shown are nominal values, subject to standard industry tolerances.
 - Ampacities are in accordance with NEC 2008 Table 310.16 or NEC 2011 Table 310.15(B)(16) for conductors in a raceway or direct buried at 30°C ambient temperature and 90°C rated conductors. Ampacities for four conductor cables apply where the 4th conductor is the neutral of a balanced 3 phase system.
 - For correction factors for different ambient temperatures and ampacities at different conductor temperature ratings see NEC 2008 Table 310.16 or NEC 2011 Table 310.15(B)(16).
 - For load diversity of 50%, refer to NEC 2008 Table B.310.11 or NEC 2011 Table B.310.15(B)(2)(11).
 - Color coded cables sized 6 AWG to 2 AWG are solid colors, while 1 AWG and up are Blk with colored stripes.