

# (4C) INTERLOCKED ARMOR POWER CABLE, 600 VOLTS

Four Conductor, XLP Insulated, Aluminum or Steel Armor  
Type MC

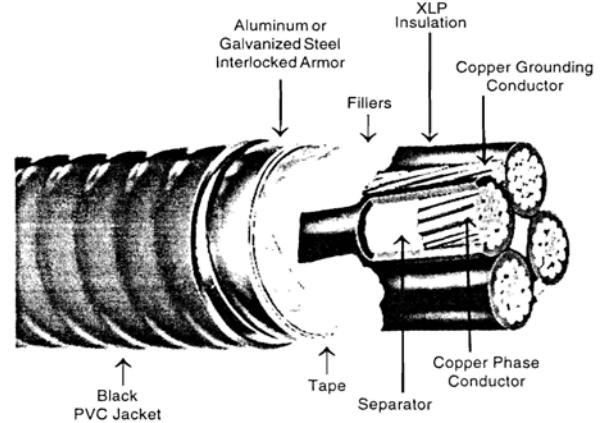
**APPLICATION:**

As 600 volt Type MC cable rated 90°C in wet or dry locations; for installation aerially or in metal rack, tray, trough, cable trays or direct buried; for power and control circuits not exceeding 600 volts in manufacturing and processing plants, substations and generating stations. When installed per the NEC, cables meet the requirements of OSHA. May be used in NEC Class I and II, Division 2 and Class III, Division 1 and 2 hazardous locations.

**STANDARDS:**

1. Listed by UL as Type MC cable per Standard 1569.
2. Individual conductors UL listed as Type XHHW-2 (90°C wet or dry) per UL Standard 44.
3. Overall jacket UL listed as Sunlight Resistant.
4. Cables pass UL and IEEE-383 ribbon burner flame tests and are UL listed For CT Use.
5. Cables comply with IEEE-1202 flame test (12 AWG and larger).
6. Cables pass ICEA 210,000 BTU/hr. ribbon burner flame test.
7. Cables UL listed for Direct Burial.
8. Cables conform to ICEA S-95-658, NEMA WC70 for Nonshielded Power Cables Rated 2000 Volts or Less.

**CONSTRUCTION:** Class B stranded uncoated copper conductor, XLP crosslinked polyethylene insulation, surface print phase identification. Four insulated conductors twisted with a Class B stranded uncoated copper grounding conductor in two opposite valleys, suitable fillers, binder tape, aluminum or galvanized steel interlocked armor, black sunlight resistant PVC jacket overall.



USAWC Part #	Size AWG or kcmil	No. of Strands	Insul. Thick. Mils	Nom. Diam. Over Armor Inches	PVC Jkt. Thick. Mils	Nom. Diam. Over PVC Jkt. Inches	Gnd. Condr. Size In Two Valleys AWG	Weight lbs/1000 ft			Ampacity'	
								Alum. Armor	Steel Armor	Copper	90°C	75°C
14-04AIAWGPVC	14	7	30	.51	50	.62	16	230	350	60	20	16
12-04AIAWGPVC	12	7	30	.56	50	.67	14	290	420	97	24	20
10-04AIAWGPVC	10	7	30	.62	50	.73	12	370	530	148	32	28
8-04AIAWGPVC	8	7	45	.76	50	.86	12	505	675	241	44	40
6-04AIAWGPVC	6	7	45	.85	50	.95	10	685	870	383	60	52
4-04AIAWGPVC	4	7	45	.97	50	1.07	10	925	1150	577	76	68
2-04AIAWGPVC	2	7	45	1.10	50	1.22	9	1290	1560	919	104	92
1-04AIAWGPVC	1	19	55	1.25	50	1.36	9	1605	1910	1136	120	104
1/0-04AIAWGPVC	1/0	19	55	1.35	50	1.46	9	1935	2265	1512	136	120
2/0-04AIAWGPVC	2/0	19	55	1.46	50	1.56	9	2355	2720	1760	156	140
3/0-04AIAWGPVC	3/0	19	55	1.58	60	1.71	7	2935	3330	2245	180	160
4/0-04AIAWGPVC	4/0	19	55	1.75	60	1.88	7	3640	3965	2796	208	184
250-04AIAWGPVC	250	37	65	1.92	60	2.04	7	4210	4635	3282	232	204
350-04AIAWGPVC	350	37	65	2.16	60	2.30	6	5710	6120	4576	280	248
500-04AIAWGPVC	500	37	65	2.47	75	2.63	5	7910	8390	6509	344	304
750-04AIAWGPVC	750	61	80	3.03	85	3.22	4	11480	12170	9713	428	380

\*AMPACITY in accordance with the NEC for cables installed in uncovered cable tray without maintained spacing at the conductor temperature indicated in wet or dry locations, 30 C ambient temperature

## Specification

# INTERLOCKED ARMOR POWER CABLE, 600 VOLTS

## Four Conductor, XLP Insulated, Aluminum or Steel Armor

### Type MC

#### 1. SCOPE

- 1.1 This specification describes four conductor XLP (thermosetting crosslinked polyethylene) insulated, aluminum or galvanized steel interlocked armor Type MC power cable for use in circuits not exceeding 600 volts phase-to-phase at conductor temperatures of 90°C in wet or dry locations for normal operation, 130°C for emergency overload conditions and 250°C for short circuit conditions. Cables are intended for installation indoors or outdoors, aerially, in metal rack, trough or cable trays, or for direct burial.

#### 2. STANDARDS

- 2.1 The following standards shall form a part of this specification to the extent specified herein:
- 2.1.1 UL Standard 1569 for Type MC cable.
- 2.1.2 UL Standard 44 for Type XHHW-2 conductors.
- 2.1.3 ICEA Pub. No. S-95-658 and NEMA Pub. No. WC70 for Nonshielded Power Cables Rated 2000 Volts or Less.

#### 3. CONDUCTORS

- 3.1 Class B stranded annealed uncoated copper per Part 2 of ICEA.

#### 4. SEPARATOR

- 4.1 A suitable separator over the conductor may be used at the option of the manufacturer.

#### 5. INSULATION

- 5.1 A homogeneous wall of XLP insulation shall be extruded over the conductor. The average thickness of insulation shall be as specified in UL Standard 44 for Type XHHW-2 conductors and in Table 3-4, Column B of ICEA. Minimum thickness at any point shall be not less than 90% of the specified thickness. Physical and electrical properties shall be in accordance with Table 3-7, Type X-2 of ICEA and Type XHHW-2 requirements of UL Standard 44.

#### 6. PHASE IDENTIFICATION

- 6.1 The insulated phase conductors shall be printed with the numerals "1", "2", "3" and "4" on the surface of the insulation.

#### 7. ASSEMBLY

- 7.1 Four phase conductors shall be cabled together with a Class B stranded, uncoated copper grounding conductor in two opposite valleys, and suitable nonhygroscopic fillers to make round. Length of lay shall not exceed 40 times the phase conductor diameter. Total circular mil area of the two grounding conductors shall be not less than the circular mil area of the grounding conductor listed in UL Standard 1569.

#### 8. CABLE TAPE

- 8.1 The cable assembly shall be covered with a suitable tape applied with a 10% minimum lap.

#### 9. ARMOR

- 9.1 An aluminum or galvanized steel interlocked armor shall be applied over the cable core. Armor shall be in accordance with UL Standard 1569 and Paragraph 4.3.3 of ICEA.

#### 10. COVERING

- 10.1 Shall be PVC meeting the requirements of ICEA Table 4-1 and the Sunlight Resistant requirements of UL 1569. Average jacket thickness shall be in accordance with UL 1569. Minimum thickness at any point shall be not less than 70% of the specified average thickness.

#### 11. IDENTIFICATION

- 11.1 An ink print legend shall be applied to the surface of the PVC covering providing cable and manufacturer identification.

#### 12. TESTS

- 12.1 Cable shall be tested in accordance with UL requirements for Type Me cable and ICEA S-95-658.
- 12.2 Cables shall be capable of passing the ribbon burner cable tray flame test requirements of UL and shall be UL listed "For CT Use." Cables shall also be capable of complying with the IEEE-1202 flame test (12 AWG and larger).