

(3C) INTERLOCKED ARMOR POWER CABLE, 600 VOLTS

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

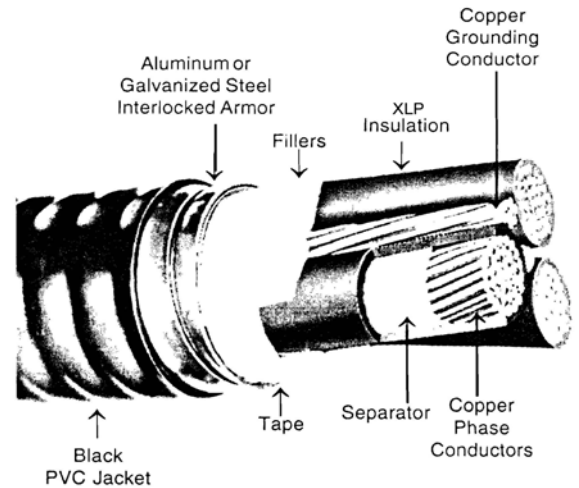
APPLICATION:

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. 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 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: Three conductors of stranded copper, XLP (crosslinked polyethylene) insulation, surface print phase identification. Three conductors twisted together with one uncoated copper grounding conductor, 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	Copper Grounding Conductor AWG	Weight lbs/ 1000 ft			Ampacity*	
								Alum. Armor	Steel Armor	Copper	90°C	75°C
14-03AIAWGPVC	14	7	30	.48	50	.58	14	185	235	52	25	20
12-03AIAWGPVC	12	7	30	.52	50	.63	12	230	265	84	30	25
10-03AIAWGPVC	10	7	30	.57	50	.68	10	300	360	128	40	35
8-03AIAWGPVC	8	7	45	.70	50	.80	10	410	565	189	55	50
6-03AIAWGPVC	6	7	45	.78	50	.88	8	550	735	300	75	65
4-03AIAWGPVC	4	7	45	.89	50	.99	8	740	950	447	95	85
2-03AIAWGPVC	2	7	45	1.01	50	1.12	6	1075	1315	710	130	115
1-03AIAWGPVC	1	19	55	1.16	50	1.27	6	1380	1630	873	150	130
1/0-03AIAWGPVC	1/0	19	55	1.23	50	1.34	6	1555	1855	1081	170	150
2/0-03AIAWGPVC	2/0	19	55	1.32	50	1.43	6	1850	2195	1341	195	175
3/0-03AIAWGPVC	3/0	19	55	1.46	50	1.57	4	2350	2665	1717	225	200
4/0-03AIAWGPVC	4/0	19	55	1.56	60	1.68	4	2820	3205	2130	260	230
250-03AIAWGPVC	250	37	65	1.74	60	1.86	4	3310	3940	2495	290	255
350-03AIAWGPVC	350	37	65	1.96	60	2.10	3	4475	4970	3474	350	310
500-03AIAWGPVC	500	37	65	2.24	60	2.37	2	6075	6580	4934	430	380
750-03AIAWGPVC	750	61	80	2.68	75	2.84	1	8960	9700	7351	535	475

*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

Three 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" and "3" on the surface of the insulation.

7. ASSEMBLY

- 7.1 Three phase conductors shall be cabled together with a Class B stranded, uncoated copper grounding conductor in valley, 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).