

ROME INTERLOCKED ARMOR POWER CABLE, 600 VOLTS

3 Conductor, Rome FR-EPR Insulated, Aluminum or Steel Armor Type MC

<p>APPLICATION: As 600 volt Type MC cable, 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.</p> <p>STANDARDS:</p> <ol style="list-style-type: none"> Listed by UL as Type MC cable per Standard 1569. Individual conductors UL listed as Type RHH or RHW-2 per UL Standard 44. Overall jacket UL listed as Sunlight Resistant. Cables UL listed for Direct Burial. Cables pass UL and IEEE-383 ribbon burner flame test and are UL listed For CT Use. Cables pass ICEA 210,000 BTU/hr. ribbon burner flame test. Cables pass IEEE-1202/CSA FT4 (70,000 BTU/hr) cable tray flame test. Cables conform to ICEA S-95-658, NEMA WC70 for Nonshielded Power Cables Rated 2000 Volts or Less. <p>CONSTRUCTION: Three conductors of stranded copper, Rome FR-EPR ethylene-propylene rubber 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.</p>											
						COPPER PHASE CONDUCTORS					
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 Ground- ing Con- ductor AWG	Approx. Net Wt. Lb./1000 Ft.		Ampacity *		
							Alum. Armor	Steel Armor	90°C	75°C	
14	7	45	.54	50	.65	14	235	315	25 ^t	20 ^t	
12	7	45	.58	50	.69	12	285	380	30 ^t	25 ^t	
10	7	45	.63	50	.74	10	360	460	40 ^t	35 ^t	
8	7	60	.76	50	.87	10	485	610	55	50	
6	7	60	.84	50	.95	8	645	785	75	65	
4	7	60	.95	50	1.06	8	850	1010	95	85	
2	7	60	1.08	50	1.18	6	1190	1375	130	115	
1	19	80	1.25	50	1.35	6	1495	1710	150	130	
1/0	19	80	1.34	50	1.45	6	1755	1980	170	150	
2/0	19	80	1.44	50	1.54	6	2085	2330	195	175	
3/0	19	80	1.54	60	1.67	4	2590	2870	225	200	
4/0	19	80	1.66	60	1.79	4	3110	3485	260	230	
250	37	95	1.87	60	2.00	4	3680	4090	290	255	
350	37	95	2.09	60	2.22	3	4855	5320	350	310	
500	37	95	2.37	75	2.53	2	6595	7125	430	380	
750	61	110	2.82	75	2.98	1	9710	10350	535	475	

*AMPACITY in accordance with the National Electrical Code for cables installed in uncovered cable tray without maintained spacing at the conductor temperature indicated in wet or dry locations, 30°C ambient temperature.

^t The overcurrent protection shall not exceed 15 amperes for 14 AWG, 20 amperes for 12 AWG and 30 amperes for 10 AWG.

Specification

ROME INTERLOCKED ARMOR POWER CABLE, 600 VOLTS

3 Conductor, Rome FR-EPR Insulated, Aluminum or Steel Armor Type MC

1. SCOPE

- 1.1 This specification describes three conductor Rome FR-EPR (ethylene-propylene rubber) 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 RHH or RHW-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 option of the manufacturer.

5. INSULATION

- 5.1 A homogeneous wall of Rome FR-EPR insulation shall be extruded over the conductor. The average thickness of insulation shall be as specified in UL Standard 44 for Type RHH-RHW-2 conductors and in Table 3-4, Column A 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 E-2 of ICEA and Type RHH-RHW-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 and suitable nonhygroscopic fillers to make round. Length of lay shall not exceed 35 times the phase conductor diameter. The grounding conductor shall comply with the requirements of UL Standard 1569.

8. CABLE TAPE

- 8.1 A suitable cable tape shall be applied over the assembly to hold the core together and provide bedding for the armor.

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 MC cable and ICEA S-95-658.