

ROME INTERLOCKED ARMOR POWER CABLE, 15000 VOLTS

3 Conductor, Rome-XLPE Insulated, 133% Insulation Level, Aluminum or Steel Armor
Type MV-90 or Type MC, CT Use

<p>APPLICATION: As armored Type MV-90 cable for installation aerially or in rack, tray, trough, cable trays, or direct buried; for power circuits not exceeding 15000 volts in manufacturing and processing plants, substations and generating stations. May be used in NEC Class I and II, Div. 2, and Class III, Div. 1 and 2 hazardous locations.</p> <p>STANDARDS:</p> <ol style="list-style-type: none"> Listed by UL as Type MV-90 per Standard 1072. Also suitable for use as Type MC per Standard 1569. Overall jacket UL listed as Sunlight Resistant. Cables pass UL and IEEE-383 ribbon burner flame tests and are UL listed For CT Use. Cables pass IEEE-1202/CSA FT4 (70,000 BTU/hr) cable tray flame test. Cables UL listed for Direct Burial. Conforms to ICEA S-93-639, NEMA WC74 for 5-46kV Shielded Power Cable. Conforms to ICEA S-97-682 for Utility Shielded Power Cables Rated 5 Through 46 kV. Conforms to AEIC CS8 for Extruded Dielectric, Shielded Power Cables Rated 5 Through 46 kV. <p>CONSTRUCTION: Three conductors of stranded copper, extruded conductor shield, Rome-XLPE (crosslinked polyethylene) insulation, extruded insulation shield, uncoated copper shielding tape. Three conductors twisted together with one uncoated copper grounding conductor, suitable fillers, binder tape, aluminum or galvanized steel interlocked armor, red PVC jacket overall.</p>											
Size AWG or kcmil	No. of Strands	Nom. Insul. Thick. Mils	Nom. Diam. Over Ins. Inches	Nom. Diam. Over Armor Inches	Nom. PVC Jkt. Thick Mils	Nom. Diam. Over PVC Jkt. Inches	COPPER PHASE CONDUCTORS				
							Copper Grounding Conduc- tor AWG	Approx. Net Wt. Lb./1000 Ft.		Ampacity *	Ampacity **
Alum. Armor	Steel Armor										
15000 VOLTS, 133% INSULATION LEVEL											
2	7	220	.78	2.11	60	2.24	6	2475	2975	145	165
1	19	220	.82	2.20	60	2.33	4	2670	3225	165	185
1/0	19	220	.86	2.28	60	2.41	4	2950	3470	195	215
2/0	19	220	.90	2.39	75	2.55	4	3335	3830	220	245
3/0	19	220	.95	2.50	75	2.66	3	3785	4305	250	285
4/0	19	220	1.01	2.61	75	2.77	3	4430	4960	290	325
250	37	220	1.06	2.79	75	2.95	3	4850	5630	315	360
350	37	220	1.17	3.01	75	3.17	2	6375	7000	385	435
500	37	220	1.30	3.29	85	3.47	1	8450	9090	470	535
750	61	220	1.49	3.67	85	3.85	1/0	11400	12550	570	670

* **AMPACITY** for cables installed in uncovered cable tray without maintained spacing; 90°C conductor temperature, 40°C ambient.

****AMPACITY** for cables installed in uncovered cable tray with maintained spacing of one cable diameter; 90°C conductor temperature, 40°C ambient. For other installation conditions refer to the NEC.

NOTE: 1. Phase identification is provided by a longitudinal narrow colored tape (1/3 black, 1/3 red, 1/3 blue) between the semiconducting insulation shield and the copper shielding tape.

Information on this sheet subject to change without notice.

Specification

ROME INTERLOCKED ARMOR POWER CABLE, 15000 VOLTS

3 Conductor, Rome-XLPE Insulated, 133% Insulation Level,

Aluminum or Steel Armor

Type MV-90 or Type MC, CT Use

1. SCOPE

- 1.1 This specification describes three conductor Rome-XLPE (thermosetting crosslinked polyethylene) insulated, aluminum or galvanized steel interlocked armor Type MV-90 power cable for use in 133% insulation level circuits not exceeding 15,000 volts phase to phase at conductor temperatures of 90°C for continuous 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 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 1072 for Type MV-90 cable.
 - 2.1.2 ICEA Pub. No. S-93-639, NEMA Pub. No. WC74 for 5-46 kV Shielded Power Cable.
 - 2.1.3 ICEA Pub. No. S-97-682 for Utility Shielded Power Cables Rated 5 Through 46 kV.
 - 2.1.4 AEIC CS8 for Extruded Dielectric, Shielded Power Cables Rated 5 Through 46 kV.

3. CONDUCTORS

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

4. CONDUCTOR SHIELD

- 4.1 Conductors shall be covered with a layer of extruded conducting crosslinked polyethylene compound with thickness in accordance with Table 3-1 of ICEA S-97-682. The extruded layer shall be firmly bonded to the cable insulation and shall be in accordance with Par. 3.1 and meet the resistivity requirements of Par. 3.6.1 of ICEA S-97-682.

5. INSULATION

- 5.1 Directly over the conductor shield shall be applied a homogeneous wall of Rome-XLPE insulation. The nominal insulation thickness shall be 220 mils and the minimum point-maximum point thickness shall be in accordance with ICEA and UL standards. Physical and electrical properties of the insulation shall be in accordance with Part 4 of ICEA S-97-682 for unfilled XLPE.

6. SHIELDING

- 6.1 Over the insulation shall be applied an extruded conducting thermosetting insulation shield. It shall be in intimate contact with the outer surface of the insulation and shall be free stripping, leaving no conducting particles or other residue on the insulation surface. This layer shall be legibly identified as being conducting. The thickness of this layer shall be in accordance with Table 5-1 of ICEA S-97-682. The insulation shield shall meet the requirements of Par. 5.5.1 of ICEA S-97-682.
- 6.2 An uncoated copper tape shall be helically applied over the extruded insulation shield with a minimum lap of 12.5%. The copper tape shall meet the requirements of Part 6 of ICEA S-97-682.

7. PHASE IDENTIFICATION

- 7.1 A colored tape shall be applied longitudinally under the copper shielding tape to provide phase identification.

8. ASSEMBLY

- 8.1 Three phase conductors shall be cabled together with a Class B stranded, uncoated copper grounding conductor and suitable 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 1072.

9. CABLE TAPE

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

10. ARMOR

- 10.1 An aluminum or galvanized steel interlocked armor shall be applied over the cable core. Armor shall be in accordance with UL Standard 1072 and Par. 7.3.3 of ICEA S-93-639.

11. COVERING

- 11.1 Shall be PVC meeting the requirements of Part 7 of ICEA S-93-639 and UL 1072. The covering shall meet the Sunlight Resistant requirements of UL 1072. The jacket thickness shall be as specified in Part 7 of ICEA S-93-639 and UL 1072.

12. IDENTIFICATION

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

13. TESTS

- 13.1 Cables shall be tested in accordance with ICEA S-93-639, ICEA S-97-682, AEIC CS8 and UL Standard 1072.