

## ROME INTERLOCKED ARMOR POWER CABLE, 5000 VOLTS

3 Conductor, Rome-EPR Insulated, Nonshielded, Aluminum or Steel Armor  
Type MV-105 or Type MC, CT Use

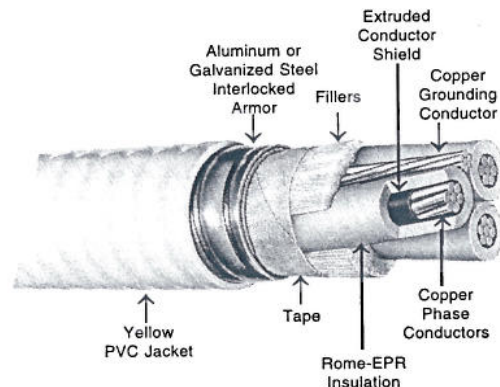
**APPLICATION:**

As armored Type MV-105 cable for installation aerially, rack, tray, trough, cable trays, or direct buried; for power circuits not exceeding 5000 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.

**STANDARDS:**

1. Listed by UL as Type MV-105 cable per Standard 1072.
2. Also suitable for use as Type MC cable per Standard 1569.
3. Overall jacket UL listed as Sunlight Resistant.
4. Cables pass UL and IEEE-383 ribbon burner flame test and are UL listed For CT Use.
5. Cables pass IEEE-1202/CSA FT4 (70,000 BTU/hr) cable tray flame test.
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-96-659, NEMA WC71 for Nonshielded Cables Rated 2001-5000 Volts.

**CONSTRUCTION:** Three conductors of stranded copper, extruded conductor shield, Rome-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, yellow PVC jacket overall.



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 PHASE CONDUCTORS				
						Copper Grounding Conduc- tor AWG	Approx. Net Wt. lb./1000 Ft.		Ampacity *	Ampacity **
							Alum. Armor	Steel Armor		
<b>5000 VOLTS, NONSHIELDED, 100% and 133% INSULATION LEVELS</b>										
6	7	115	1.19	50	1.30	6	905	1075	77	88
4	7	115	1.29	50	1.40	6	1115	1315	100	115
2	7	115	1.42	50	1.53	6	1430	1785	135	154
1	19	115	1.50	50	1.61	4	1770	2070	155	180
1/0	19	115	1.59	60	1.72	4	2025	2330	185	205
2/0	19	115	1.72	60	1.85	4	2390	2800	210	240
3/0	19	115	1.83	60	1.96	3	3000	3425	245	280
4/0	19	115	1.95	60	2.08	3	3395	3830	285	320
250	37	115	2.07	60	2.20	3	3900	4400	315	355
350	37	115	2.30	75	2.46	2	5105	5620	390	440
500	37	115	2.57	75	2.73	1	6800	7385	475	545
750	61	115	2.98	75	3.14	1/0	9400	10000	585	685

\* **AMPACITY** for cables installed in uncovered cable tray without maintained spacing; 105°C conductor temperature, 40°C ambient.

\*\* **AMPACITY** for cables installed in uncovered cable tray with maintained spacing of one cable diameter; 105°C conductor temperature, 40°C ambient.  
For other installation conditions refer to the NEC.

Information on this sheet subject to change without notice.

## Specification

### ROME INTERLOCKED ARMOR POWER CABLE, 5000 VOLTS, 100% AND 133% INSULATION LEVELS

3 Conductor, Rome-EPR Insulated, Nonshielded,  
Aluminum or Steel Armor

Type MV-105 or Type MC, CT Use

#### 1. SCOPE

- 1.1 This specification describes three conductor Rome-EPR (ethylene propylene rubber) insulated, nonshielded, aluminum or galvanized steel interlocked armor Type MV-105 power cable for use in circuits not exceeding 5000 volts phase to phase at conductor temperatures of 105°C for continuous normal operation, 140°C for emergency overload conditions and 250°C for short circuit conditions. Cables are intended for installation indoors or outdoors, aerially, rack, trough or cable trays, or 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-105 cable.
  - 2.1.2 ICEA Pub. No. S-96-659 and NEMA Pub. No. WC71 for Nonshielded Cables Rated 2001-5000 Volts.

#### 3. CONDUCTORS

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

#### 4. CONDUCTOR SHIELD

- 4.1 The conductor shall be covered with a layer of extruded conducting thermosetting compound with an average thickness of not less than 15 mils and a minimum point thickness of 12 mils. The extruded layer shall be compatible with and firmly bonded to the cable insulation and shall meet the resistivity requirements of Par. 3.3 of ICEA.

#### 5. INSULATION

- 5.1 Directly over the conductor shield shall be applied a homogeneous wall of orange Rome-EPR insulation. The average thickness of insulation shall be 115 mils. Minimum thickness at any point shall be not less than 90% of the specified thickness. Physical and electrical properties of the insulation shall be in accordance with Table 4-5, Type E-2 of ICEA.

#### 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 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.

#### 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 1072 and Paragraph 5.3.3 of ICEA.

#### 10. COVERING

- 10.1 An extruded covering of PVC shall be applied over the armor. The average thickness and properties of the PVC covering shall be as specified in Paragraph 5.3.9 of ICEA and UL 1072. Minimum thickness at any point shall be not less than 70% of the required average thickness. The covering shall meet the Sunlight Resistant requirements of UL.

#### 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 MV-105 cable and ICEA S-96-659.
- 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/CSA FT4 flame test.