

## ROME-EPR POWER CABLE, 5000 VOLTS

Three Conductor, Nonshielded, with Grounding Conductor  
MV-105, Sunlight Resistant, CT Use

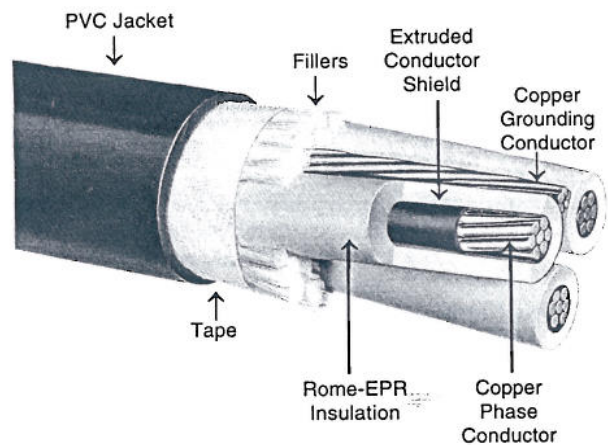
**APPLICATION:**

As three conductor 5000 volt nonshielded power cable, Type MV-105, for use at conductor temperatures not exceeding 105°C in wet or dry locations for normal operation, 140°C for emergency overload, and 250°C for short circuit conditions. Suitable for installation in conduit, trays, troughs, ducts and aerial applications.

**STANDARDS:**

- A-Listed by Underwriters Laboratories as 5000-volt power cable Type MV-105, per UL Standard 1072.
- B-Cables conform to ICEA S-96-659, NEMA WC71 for Nonshielded Cables Rated 2001-5000 Volts.
- C-Overall jacket listed as Sunlight Resistant.
- D-Cables pass UL and IEEE-383 ribbon burner flame test and are UL listed For CT Use.

**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, black PVC jacket overall, surface printed.



Size AWG or kcmil	No. of Strands	Thickness in Mils		Nominal Diameter Over Ins. Inches	Nom. Diam. Inches	Grounding Conductor Size AWG <sup>(1)</sup>	Approx. Net Wt. Lb./ 1000 Ft.	Ampacity *	
		Insulation	Jacket					Conduit	Air
<b>5000 VOLTS, 100% or 133% INSULATION LEVEL</b>									
6	7	115	80	.45	1.16	6	795	77	88
4	7	115	80	.50	1.26	6	1010	100	115
2	7	115	80	.56	1.39	6	1305	135	154
1	19	115	80	.60	1.48	4	1600	155	180
1/0	19	115	80	.64	1.56	4	1890	185	205
2/0	19	115	80	.68	1.66	4	2150	210	240
3/0	19	115	110	.73	1.83	3	2650	245	280
4/0	19	115	110	.79	1.95	3	3220	285	320
250	37	115	110	.84	2.07	3	3830	315	355
350	37	115	110	.95	2.30	2	4965	390	440
500	37	115	110	1.08	2.58	1	6610	475	545
750	61	115	140	1.27	3.05	1/0	9490	585	685
1000	61	115	140	1.42	3.37	1/0	11285	660	790

\*CONDUIT: Three conductor cable in isolated conduit in air, 105°C Conductor Temperature, 40°C Ambient. AIR: Three conductor cable isolated in air, 105°C Conductor Temperature, 40°C Ambient. For other installation conditions, refer to the National Electrical Code.

- NOTES: 1 Grounding conductor sized in accordance with UL Standard 1072.  
2 Cable is not UL listed for Direct Burial.

Information on this sheet subject to change without notice.

Specification

## ROME-EPR POWER CABLE, 5000 VOLTS

### Three Conductor, Nonshielded, with Grounding Conductor MV-105, Sunlight Resistant, CT Use

#### 1. SCOPE

- 1.1 This specification describes three-conductor Rome-EPR (ethylene-propylene rubber) insulated, polyvinyl chloride jacketed nonshielded cable for use in circuits not exceeding 5000 volts phase to phase at conductor temperatures of 105°C continuous normal operation, 140°C for emergency overload conditions, and 250°C for short circuit conditions. Cables are intended for use as Type MV-105 in applications covered by the National Electrical Code and are suitable for installation in conduit, trays, troughs, ducts, and aerial applications.

#### 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 requirements of Part 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 15 mils. Minimum thickness at any point shall not be 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 The cable assembly shall be covered with a suitable tape having a minimum 10% lap.

#### 9. OVERALL JACKET

- 9.1 A polyvinyl chloride jacket shall be applied overall. The jacket shall meet the requirements of Table 5-1 of ICEA and the Sunlight Resistant requirements of UL Standard 1072. The average thickness of the jacket shall be as specified in Table 5-3 of ICEA. The minimum thickness at any point shall not be less than 80% of that specified.

#### 10. IDENTIFICATION

- 10.1 All cable shall be identified by means of surface ink printing indicating manufacturer, number of conductors, size, insulation type, voltage rating and UL designations.

#### 11. TESTS

- 11.1 Cable shall be tested in accordance with ICEA S-96-659 and UL Standard 1072.