

ROME PORTABLE POWER CABLE

Three-Conductor Flat-Type G, 2000 Volts

<p>APPLICATION: For portable trailing cable on ac shuttle cars and other mobile mining equipment, where the cable must withstand constant flexing and reeling. For use in circuits not exceeding 2000 volts, maximum conductor temperature of 90°C.</p> <p>STANDARDS: Conforms to ICEA S-75-381 (NEMA WC58).</p> <p>CONSTRUCTION: Three insulated conductors, each consisting of flexible stranded annealed coated copper, color coded Rome-EPR ethylene-propylene rubber insulation. Two covered grounding conductors of flexible stranded coated annealed copper formed into a flat configuration. Three insulated conductors assembled parallel with one ground conductor between middle conductor and each outer conductor, with reinforcing braid over assembly. Overall Neoprene jacket vulcanized in a metal mold. Embossed marking molded as an integral part of the jacket, including the inscription P-105-MSHA, indicating full compliance with Federal and State of Pennsylvania safety codes.</p>		<p>The diagram shows a cross-section of the cable with the following components labeled: Neoprene Jacket (outermost layer), Rome-EPR Insulation (around the three main conductors), Green Covered Grounding Conductor (two conductors), and Annealed Copper Conductors (the three main conductors).</p>					
Size AWG	No. of Strands	Insulation Thickness Mils	Grounding Cond. Size AWG	Nominal Diameter Inches	Approx. Net Weight Lb./1000 Ft.	Ampacity*	
						20°C Ambient	40°C Ambient
6	168	60	8	.67 x 1.65	890	93	79
4	259	60	8	.75 x 1.85	1150	123	104
3	329	60	7	.77 x 1.99	1415	142	120
2	259	60	6	.81 x 2.10	1645	163	138
1	329	80	5	.97 x 2.43	2040	190	161

*AMPACITY based upon continuous duty at 90°C conductor temperature, ambient temperature as indicated, cable in free air. For other ambient temperatures and when cables are used with one or more layers wound on a reel, use correction factors shown in Appendix H, ICEA S-75-381.

Information on this sheet subject to change without notice.

Specification

ROME PORTABLE POWER CABLE

Three-Conductor Flat-Type G, 2000 Volts

1. SCOPE

- 1.1 This specification describes a three-conductor flat Type G portable power cable with Rome-EPR (ethylene-propylene rubber) insulation for use in circuits not exceeding 2000 volts at a maximum conductor temperature of 90°C. Cables are intended for use on equipment where a heavy power load is required, such as mining equipment, portable generator leads, welders, and power supplies on barges.

2. STANDARDS

- 2.1 The following standard shall form a part of this specification:
 - 2.1.1 ICEA Pub. No. S-75-381 for Portable and Power Feeder Cables for Use in Mines and Similar Applications (NEMA WC58).

3. CONDUCTORS

- 3.1 Minimum Class H stranded, annealed, coated copper per Part 2 of ICEA.

4. INSULATION

- 4.1 A homogeneous wall of Rome-EPR insulation shall be extruded over the conductor. The average thickness of the insulation shall be as specified in Table 3-11 of ICEA. The minimum thickness shall be not less than 90 percent of the specified average values.
- 4.2 Physical and electrical properties of the insulation shall be in accordance with Par. 3.15 of ICEA.

5. CIRCUIT IDENTIFICATION

- 5.1 Colored insulation coded black, white and red meeting the requirements of Par. 3.18 of ICEA.

6. GROUNDING CONDUCTORS

- 6.1 The grounding conductors shall be annealed coated copper of not less than the size in Table 3-11 of ICEA for the corresponding power conductor size.
- 6.2 Each grounding conductor shall have a green covering.

7. ASSEMBLY

- 7.1 Three insulated conductors are laid parallel with a grounding conductor, in a vertical position between each of them.

8. REINFORCING BRAID

- 8.1 An open braid is applied over the assembly to facilitate adhesion between the inner core and jacket.

9. JACKET

- 9.1 A thermosetting jacket shall be extruding over the assembly in accordance with Par. 3.21 of ICEA.
- 9.2 The jacket shall be an extra heavy-duty Neoprene meeting the requirements of Table 3-3 of ICEA.

10. COMPLETED CABLE

- 10.1 The nominal outside diameter shall be in accordance with Table 3-11 of ICEA.
- 10.2 The tolerances shall be within the requirements of Par. 3.22.2 of ICEA.

11. SURFACE MARKING

- 11.1 All cable shall have an embossed print legend showing manufacturer, cable type, size, voltage, and Mine Safety and Health Administration (MSHA) Approval Number.

12. TESTS

- 12.1 Cable shall be tested in accordance with ICEA.