

ROME PORTABLE POWER CABLE

Single Conductor Normal Service - Type W, 2000 Volts

<p>APPLICATION: For portable trailing cable on electric mining locomotives and other mobile equipment of the gathering-reel type, 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: Flexible stranded annealed coated copper conductor, separator, Rome-EPR ethylene-propylene rubber insulation, reinforcement, 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. From the outside in, there is a thick outer layer labeled 'Neoprene Jacket'. Inside the jacket is a layer of 'Rome-EPR Insulation'. Below the insulation is a braided 'Reinforcement' layer. The innermost part is the 'Annealed Copper Conductor', which consists of multiple strands of copper.</p>				
Size AWG or kcmil	No. of Strands	Insulation Thickness Mils	Nominal Diameter Inches	Approx. Net Wt. Lb/1000 Ft.	Ampacity*	
					20°C Ambient	40°C Ambient
8	133	60	.44	150	98	83
6	168	60	.51	205	129	109
4	259	60	.57	280	171	145
3	329	60	.63	350	197	167
2	259	60	.66	370	227	192
1	329	80	.74	500	263	223
1/0	259	80	.77	550	304	258
2/0	329	80	.82	660	352	298
3/0	418	80	.87	830	407	345
4/0	532	80	.93	950	472	400
250	427	95	1.03	1240	525	445
300	427	95	1.09	1400	590	500
350	427	95	1.15	1480	651	552
500	427	95	1.31	2140	820	695

*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.

(1) Hypalon jacket may also be supplied.

Information on this sheet subject to change without notice.

Specification

ROME PORTABLE POWER CABLE

Single Conductor Normal Service-Type W, 2000 Volts

1. SCOPE

- 1.1 This specification describes single conductor Type W 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 electric mining locomotives and other mobile equipment of the gathering-reel type.

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 3-6 of ICEA. The minimum thickness shall not be 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. REINFORCEMENT

- 5.1 The insulated conductor shall have a reinforcement meeting the requirements of Par. 3.21 of ICEA to facilitate adhesion between the insulated conductor and jacket.

6. JACKET

- 6.1 A thermosetting jacket shall be extruded over the insulated conductor in accordance with Par. 3.21 of ICEA.
- 6.2 The jacket shall be an extra-heavy duty Neoprene or Hypalon meeting the requirements of Table 3-3 of ICEA.

7. COMPLETED CABLE

- 7.1 The nominal outside diameter shall be in accordance with Table 3-6 of ICEA.
- 7.2 The tolerances shall be within the requirements of Par. 3.22.2 of ICEA.

8. SURFACE MARKING

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

9. TESTS

- 9.1 Cable shall be tested in accordance with ICEA.