

## ROME-XLP POWER CABLE, 15000 VOLTS

Single Conductor, Shielded, 100% Insulation Level  
Type MV-90

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| <p><b>APPLICATION:</b> As medium voltage MV-90 power cable for use in main feeder, distribution and branch circuits in industrial, commercial and electric utility installations. Cables may be used in wet or dry locations in circuits not exceeding 15000 volts, 100% insulation level, at conductor temperatures not exceeding 90°C for normal, 130°C for emergency overload and 250°C for short-circuit conditions. Suitable for installation in conduit, trough, ducts, aerial and direct burial applications.</p> <p><b>STANDARDS:</b></p> <ol style="list-style-type: none"> <li>1. Listed by Underwriters Laboratories as 15,000-volt power cable, Type MV-90, per UL Standard 1072.</li> <li>2. Conforms to ICEA S-93-639 and NEMA WC-74 for 5-46 kV Shielded Power Cables.</li> <li>3. Overall jacket UL listed as Sunlight Resistant.</li> </ol> <p><b>CONSTRUCTION:</b> Annealed copper conductor, extruded conductor shield, Rome -XLP thermosetting chemically crosslinked polyethylene insulation, PolyKote, semiconducting tape, #22 AWG metallic wire shielding, tape, black polyvinyl chloride jacket overall, surface printed.</p> |  |
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| Size<br>AWG<br>or<br>kcmil  | No. of<br>Strands | Thickness in Mils |        | Nominal<br>Diameter<br>Over Ins.<br>Inches | Nominal<br>Diameter<br>Inches | COPPER CONDUCTOR                   |           |         |
|---|-------------------|-------------------|--------|--|-------------------------------|------------------------------------|-----------|---------|
|   |                   | Insulation        | Jacket |  |                               | Approx.<br>Net Wt.<br>lb./1000 Ft. | Ampacity* |         |
|   |                   |                   |        |  |                               |                                    | Duct      | Conduit |
| <b>8001-15000 VOLTS, SHIELDED, 100% INSULATION LEVEL (GROUNDED NEUTRAL)</b> |                   |                   |        |  |                               |                                    |           |         |
| 2   | 7                 | 175               | 80     | .69  | .95                           | 495                                | 155       | 150     |
| 1   | 19                | 175               | 80     | .73  | .99                           | 565                                | 175       | 170     |
| 1/0   | 19                | 175               | 80     | .77  | 1.03                          | 650                                | 200       | 195     |
| 2/0   | 19                | 175               | 80     | .81  | 1.08                          | 755                                | 230       | 225     |
| 3/0   | 19                | 175               | 80     | .86  | 1.13                          | 880                                | 295       | 295     |
| 4/0   | 19                | 175               | 80     | .92  | 1.19                          | 1045                               | 295       | 295     |
| 250   | 37                | 175               | 80     | .98  | 1.25                          | 1200                               | 325       | 330     |
| 350   | 37                | 175               | 80     | 1.09                                       | 1.35                          | 1550                               | 390       | 395     |
| 500   | 37                | 175               | 80     | 1.21                                       | 1.47                          | 2070                               | 465       | 480     |
| 750   | 61                | 175               | 110    | 1.40                                       | 1.66                          | 2945                               | 565       | 585     |
| 1000  | 61                | 175               | 110    | 1.55                                       | 1.87                          | 3890                               | 640       | 675     |

\***DUCT:** Three cables per duct, 90°C Conductor Temperature, 20°C Ambient, One Circuit, 100% Load Factor, Rho = 90. **CONDUIT:** Three cables in isolated conduit in air, 90°C Conductor Temperature, 40°C Ambient. For other installation conditions, refer to the National Electrical Code.

- NOTES: (1) Copper metallic tape shield or extruded insulation shield available on request.  
 (2) CPE jacket may also be supplied.  
 (3) Cables may be direct buried where NEC jurisdiction applies if the metallic shield is grounded through an effective path meeting the requirements of 250.4(A)(5) or 250.4(B)(4).

Information on this sheet subject to change without notice.

## Specification

### ROME-XLP POWER CABLE, 15000 VOLTS

#### Single Conductor, Shielded, 100% Insulation Level Type MV-90

#### 1. SCOPE

- 1.1 This specification describes single conductor Rome-XLP (thermosetting crosslinked polyethylene) insulated, shielded power cables for use in grounded neutral 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 power cable applications, in wet or dry locations, including conduit, duct, direct burial, and aerial installation.

#### 2. STANDARDS

- 2.1 The following standards shall form a part of this specification to the extent specified herein:
  - 2.1.1 Underwriters Laboratories Standard 1072 for Medium-Voltage Solid-Dielectric Cable.
  - 2.1.2 ICEA Pub. No. S-93-639 and NEMA Pub. No. WC74 for 5-46 kV Shielded Power Cables.

#### 3. CONDUCTORS

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

#### 4. CONDUCTOR SHIELDING

- 4.1 Conductors shall be covered with a layer of extruded conducting crosslinked polyethylene compound with a minimum average thickness of .015". The extruded layer shall be firmly bonded to the cable insulation and shall meet the resistivity requirements of Section 3 of ICEA.

#### 5. INSULATION

- 5.1 Directly over the conductor shielding shall be applied a homogeneous wall of Rome-XLP insulation. The average thickness of insulation shall be 175 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 Section 4.3.1 of ICEA and UL 1072.

#### 6. SHIELDING

- 6.1 A thin uniform layer of Rome "PolyKote" (black conducting polymeric coating) shall be applied directly over the insulation. A semiconducting non-metallic tape shall be wrapped over the "PolyKote" to act as a conductive bedding between the "PolyKote" layer and the metallic shielding. Shielding shall comply with Section 5.1.1.1 of ICEA. A special marker tape applied over the semiconducting tape shall identify the tape and "PolyKote" layers as conducting.
- 6.2 A serving of evenly spaced #22 AWG solid uncoated copper wires shall be applied concentrically over the semiconducting tape. The metallic wire shielding shall meet the requirements of Section 6 of ICEA.

#### 7. SEPARATOR TAPE

- 7.1 A suitable separator shall be applied over the cable shielding system.

#### 8. JACKET

- 8.1 A polyvinyl chloride jacket shall be applied overall. This jacket shall meet the requirements of Section 7 of ICEA and the Sunlight Resistant requirements of UL Standard 1072. The average thickness of the jacket shall be as specified in UL 1072. The minimum thickness at any point shall be not less than 80% of that specified.

#### 9. IDENTIFICATION

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

#### 10. TESTS

- 10.1 Cable shall be tested in accordance with ICEA S-93-639 and UL Standard 1072.