

## ROME TELEPHONE POWER CABLE, 600 VOLTS

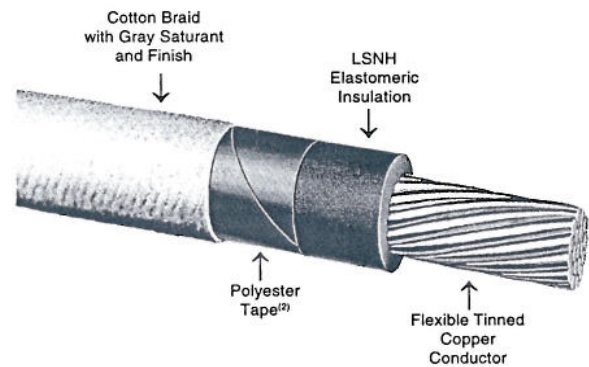
Flexible Conductor, Low Smoke Non Halogen Elastomeric Insulation, Cotton Braid Type RHH or RHW, Limited Smoke, Sun Res, For CT Use

**APPLICATION:** General purpose wiring in telecommunications central office and transmission stations. Cables are intended for use in 600 volt ac or dc distribution circuits, in wire-ways, conduits and cable trays where a flexible cable with outstanding resistance to abrasion, heat, moisture and flame is required. Cables are rated 90°C in dry locations and 75°C in wet locations.

**STANDARDS:**

1. Listed by UL as Type RHH or RHW per Standard 44.
2. Cables pass 70000 BTU/hr cable tray flame test and are UL listed For CT Use (1/0 and larger).
3. Cables are UL listed as Sunlight Resistant.
4. Cables emit low levels of smoke when burned (LS listed 1/0 and larger).
5. Cables contain no sulfur or lead, are environmentally safe.
6. Insulation and treated cotton braid have LOI exceeding 28% per ASTM D-2863.
7. Class I stranding per ASTM B-172.
8. Listed by CSA as AWM I A/B 125°C, 600 V, FT1.
9. Cable complies with Bellcore Spec GR-347-CORE.

**CONSTRUCTION:** Annealed tinned bunch rope stranded copper conductor, separator, low smoke nonhalogen elastomeric insulation, polyester tape, cotton braid, gray saturant and finish, surface printed.



Size AWG or kcmil	No. of Strands	Insulation Thickness		Nominal Diameter		Approx. Net Weight		Ampacity*	
		Mils	mm	Inches	mm	lb/1000 Ft.	kg/km	RHH 90°C Dry	RHW 75°C Wet/Dry
8	41	60	1.52	.33	8.4	100	149	55	50
6	63	60	1.52	.38	9.6	140	208	75	65
4	105	60	1.52	.44	11.2	215	320	95	85
2	161	60	1.52	.50	12.7	305	454	130	115
1/0	266	80	2.03	.66	16.8	510	759	170	150
2/0	329	80	2.03	.70	17.8	577	859	195	175
4/0	532	80	2.03	.82	20.8	847	1261	260	230
350	888	95	2.41	1.04	26.4	1377	2049	350	310
500	1258	95	2.41	1.22	31.0	1920	2857	430	380
750	1850	110	2.79	1.52	38.6	2800	4167	535	475

\*AMPACITY in accordance with NEC for not more than three conductors in raceway at the temperature indicated, 30°C ambient temperature.

- NOTES:**
1. Colors other than gray, available on request.
  2. Size 6 AWG and larger.

Information on this sheet subject to change without notice.

## Specification

### ROME TELEPHONE POWER CABLE, 600 VOLTS

Flexible Conductor, Low Smoke Non Halogen Elastomeric Insulation, Cotton Braid Type RHH or RHW, Limited Smoke, Sun Res, For CT Use

#### 1. SCOPE

- 1.1 This specification describes a flexible single conductor cable with low smoke non halogen elastomeric insulation and cotton braid suitable for power distribution wiring in telecommunication power plants. Cables may be installed in raceways, on racks or trays, or internally in equipment where the gray finish on the cable harmonizes with the color of other telecommunication equipment. Cables are listed by UL as Type RHH or RHW for applications in circuits not exceeding 600 volts ac-dc at a maximum conductor temperature of 90°C in dry locations or 75°C in wet locations. Sizes 1/0 and larger are listed by UL as LS (Limited Smoke) and For CT Use. All cables are Sunlight Resistant. Cables are listed by CSA as AWM I A/B 125°C, 600 V, FT1.

#### 2. APPLICABLE STANDARDS

- 2.1 The following standards form a part of this specification to the extent specified herein:
  - 2.1.1 Underwriters Laboratories Standard 44 for Rubber Insulated Wires and Cables.
  - 2.1.2 Canadian Standards Association Standard C22.2 No. 210.2 for Appliance Wiring Material.
  - 2.1.3 ASTM D-2863, latest issue - Minimum Oxygen Concentration to Support Candle-Like Combustion of Plastics.
  - 2.1.4 Bellcore Spec GR-347-CORE Generic Requirements for Central Office Power Wire.
  - 2.1.5 ASTM B172 Rope-Lay Stranded Copper Conductors.

#### 3. CONDUCTORS

- 3.1 Conductors shall be bunch (size 8 AWG) and rope-lay stranding with No. 24 AWG soft tinned copper wires conforming to ASTM B 172, Class I.

#### 4. SEPARATOR

- 4.1 An opaque polyester separator tape shall be applied between the conductor and the insulation. (On size 750, a fabric tape is used).

#### 5. INSULATION

- 5.1 Each conductor shall be insulated with a sulfur and lead-free, low smoke non halogen crosslinked elastomeric insulation complying with the physical and electrical requirements of UL Standard 44 for Type RHH or RHW and 125°C AWM requirements of CSA C22.2 No. 210.2. The insulation shall have a minimum LOI of 28% when tested in accordance with ASTM D-2863.
- 5.2 The average thickness of insulation shall be as specified in UL Standard 44 for Type RHH or RHW. The minimum thickness at any point shall be not less than 90% of the specified average thickness. The insulation shall be applied tightly to the conductor and shall be free stripping.

#### 6. TAPE

- 6.1 On sizes 6 AWG and larger, the insulation shall be covered with a wrapped opaque polyester tape.

#### 7. BRAID

- 7.1 A close-weave cotton braid shall be applied over the tape-wrapped insulation. The braid shall comply with the requirements of UL Standard 44.

#### 8. SATURANT / FINISH

- 8.1 The cotton braid shall be saturated with a heat, moisture and flame-retardant compound complying with requirements of UL Standard 44. Color of the saturant shall be gray.
- 8.2 The saturated cotton braid shall be coated with a lacquer paint to provide a gray color.
- 8.3 The saturated lacquered cotton braid forming the external finish shall present a uniform external appearance, shall be smooth, dry and free from irregularities and shall not flake-off.
- 8.4 The saturated, finished cotton braid shall have a minimum LOI of 28% when tested in accordance with ASTM D-2863.

#### 9. SURFACE MARKING

- 9.1 An ink print legend shall be applied to each cable indicating manufacturer, size, voltage, UL and CSA designations.

#### 10. TESTS

- 10.1 Completed cables shall be tested in accordance with the applicable requirements of UL Standard 44, CSA Standard C22.2 No. 210.2, and Bellcore Spec GR-347-CORE.