Rome Cable
CORPORATION

SPEC 3632

January 1, 2002

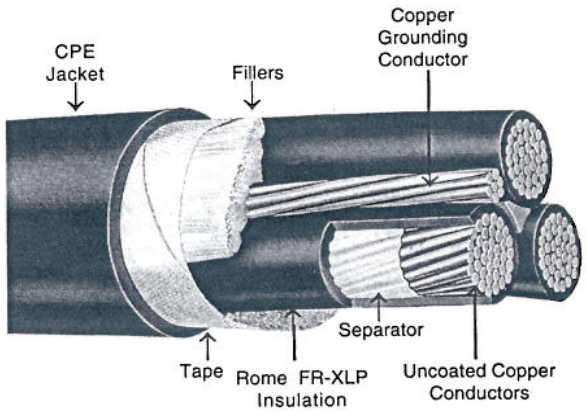
ROME TRAY CABLE, TYPE TC

Rome FR-XLP Insulation, CPE Jacket, 600 Volts
Three Conductor with Grounding Conductor

APPLICATION: As flame-retardant three conductor power cables rated 600 volts, 90°C in wet or dry locations. Specifically approved for installation in cable trays per Article 336 of the NEC. Type TC Cables are approved for use in Class I and II, Division 2 hazardous locations. Cables may be installed in air, in ducts or conduits, in tray or trough, or direct buried.

STANDARDS:
1. Listed by UL as Type TC Tray Cable per Standard 1277 for Tray Cables.
2. Individual conductors UL listed as Type XHHW-2.
3. Individual conductors pass UL VW-1 flame test.
4. Overall Jacket UL listed as Sunlight Resistant and Oil Resistant II.
5. Cables pass IEEE-383 ribbon burner flame test and ICEA 210,000 BTU/hour test.
6. Cables UL listed for Direct Burial.
7. Cables meet requirements of ICEA S-95-658, NEMA WC70.

CONSTRUCTION: Class B stranded uncoated copper conductor, Rome FR-XLP flame-retardant crosslinked polyethylene insulation, surface print phase identification. Three insulated conductors twisted with a Class B stranded uncoated copper grounding conductor and suitable fillers, cable tape, CPE jacket overall, surface printed.



THREE CONDUCTORS WITH GROUNDING CONDUCTOR

Size AWG or kcmil	No. of Strands	Thickness in Mils		Nominal Diameter Inches	Grounding Conductor Size(1) AWG	Approx. Net Wt. Lb./1000 Ft.	Ampacity*	
		Insulation	Jacket				90°C	75°C
8	7	45	60	.66	10	335	55	50
6	7	45	60	.74	8	475	75	65
4	7	45	80	.88	8	700	95	85
2	7	45	80	1.00	6	1020	130	115
1	19	55	80	1.13	6	1260	150	130
1/0	19	55	80	1.22	6	1520	170	150
2/0	19	55	80	1.31	6	1825	195	175
3/0	19	55	80	1.42	4	2210	225	200
4/0	19	55	80	1.55	4	2690	260	230
250	37	65	110	1.76	4	3265	290	255
350	37	65	110	1.98	3	4465	350	310
500	37	65	110	2.26	2	6100	430	380
750	61	80	110	2.71	1	9060	535	475
1000	61	80	140	3.10	1/0	11770	615	545

*AMPACITY in accordance with the National Electrical Code for cables in uncovered cable tray without maintained spacing and for cables in raceway or directly buried; at the conductor temperature indicated, in wet or dry locations, 30°C ambient temperature.

NOTES: 1. Grounding conductor per UL Standard 1277 for Type TC Tray Cable.

Information on this sheet subject to change without notice.

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1-1-02

Specification

ROME TRAY CABLE, TYPE TC

Rome FR-XLP Insulation, CPE Jacket, 600 Volts Three Conductor with Grounding Conductor

1. SCOPE

1.1 This specification describes three conductor Rome Type TC Tray Cable insulated with Rome FR-XLP flame-retardant crosslinked polyethylene and CPE jacketed overall, for use on circuits rated 600 volts. Cables are recommended for operation at 90°C maximum continuous conductor temperature in wet or dry locations. The cables are specifically approved for installation in cable trays in accordance with Article 336 of the NEC. They may be installed in air, in ducts or conduits, in tray or trough, or direct buried.

2. APPLICABLE STANDARDS

2.1 The following standards shall form a part of this specification to the extent specified herein:
- 2.1.1 Underwriters Laboratories Standard 1277 for Type TC Power and Control Tray Cables.
- 2.1.2 Underwriters Laboratories Standard 44 for Rubber Insulated Wires and Cables.
- 2.1.3 ICEA Pub. No. S-95-658, NEMA Pub. No. WC70, Nonshielded Power Cables Rated 2000 Volts or Less.

3. CONDUCTORS

3.1 Conductors shall be Class B stranded uncoated soft copper per Part 2 of ICEA S-95-658.

4. SEPARATOR

4.1 A suitable separator over the conductor may be used at the option of the manufacturer.

5. INSULATION

5.1 **Compound:** Each phase conductor shall be insulated with Rome FR-XLP flame-retardant chemically crosslinked polyethylene, meeting the requirements of ICEA S-95-658, Table 3-7, Class X-2 and Type XHHW-2, VW-1 requirements of Underwriters Laboratories.

5.2 **Thickness:** The average thickness of insulation shall be as specified in UL Standard 44 for Type XHHW-2 conductors and in Table 3-4, Column B of ICEA. The minimum thickness at any point shall be not less than 90% of the specified average thickness.

6. PHASE IDENTIFICATION

6.1 The insulated phase conductors shall be black in color and shall be printed with the numerals "1", "2" and "3" on their surface.

7. ASSEMBLY

7.1 Three phase conductors shall be cabled together with a Class B stranded, uncoated copper grounding conductor and suitable nonhygroscopic 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 1277.

8. CABLE TAPE

8.1 The cable assembly shall be covered with a suitable tape applied with a 10% minimum lap.

9. OVERALL JACKET

9.1 **Compound:** Each cable shall have a Chlorinated Polyethylene (CPE) protective jacket applied over the taped assembly. The jacket shall meet the requirements of ICEA S-95-658, Table 4-1(TP-CPE) and the Sunlight Resistant and Oil Resistant II requirements of UL Standard 1277.

9.2 **Thickness:** The average jacket thickness shall be in accordance with UL Standard 1277. The minimum thickness at any point shall be not less than 80% of the specified average thickness.

10. SURFACE MARKING

10.1 Cables shall be identified by means of surface ink printing indicating manufacturer, number of conductors, size, voltage rating, and required UL information.

11. TESTS

11.1 Individual conductors and completed cables shall be tested in accordance with UL requirements for Type TC Power and Control Tray Cables having XHHW-2 conductors, and ICEA S-95-658.

11.2 Cables shall be capable of passing the ribbon burner cable tray flame test requirements of UL and IEEE.