

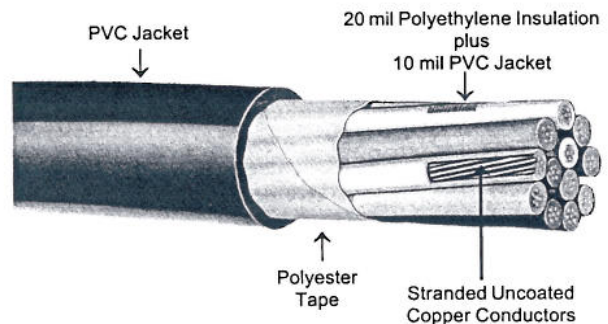
ROME TYPE CT-B CONTROL CABLE, 600 VOLTS

Polyethylene - PVC Singles, PVC Jacket
General Purpose Control Cable

APPLICATION: Standard general purpose control cable for important control circuits in industrial plants and station control cable for utilities. Suitable for the operation and interconnection of protective devices; rated circuit voltage 600 volts, recommended for operation at 75°C maximum continuous conductor temperature. Cables may be installed in open air, in ducts or conduit, or in tray or trough and direct burial.

STANDARDS: Physical and electrical tests in accordance with appropriate sections of ICEA S-73-532, NEMA WC57.

CONSTRUCTION: Stranded uncoated copper conductors, 20 mils black high molecular weight polyethylene insulation, 10 mils full color coded PVC Jacket⁽¹⁾ over each insulated conductor, two conductors flat, three or more conductors twisted with suitable fillers where necessary to make round, polyester tape over assembly, PVC jacket overall, surface printed.



Number of Conductors	#10 AWG - 7 Strand			#12 AWG - 7 Strand			#14 AWG - 7 Strand		
	Overall PVC Jacket Mils	Nom. Diam. Inches	Approx. Net Weight Lb./1000 Ft.	Overall PVC Jacket Mils	Nom. Diam. Inches	Approx. Net Weight Lb./1000 Ft.	Overall PVC Jacket Mils	Nom. Diam. Inches	Approx. Net Weight Lb./1000 Ft.
1	(1)	.21	45	(1)	.19	30	(1)	.17	20
2 Flat	45	.28 x .46	115	45	.25 x .41	80	45	.23 x .37	65
3	45	.49	165	45	.43	120	45	.39	90
4	60	.57	230	45	.48	150	45	.43	110
5	60	.62	280	45	.52	180	45	.47	135
6	60	.67	320	60	.60	220	45	.51	155
7	60	.67	355	60	.60	250	45	.51	170
8	60	.73	415	60	.65	290	60	.59	215
9	60	.79	475	60	.69	330	60	.62	245
10	80	.89	535	60	.75	360	60	.68	260
11	80	.89	580	60	.75	385	60	.68	280
12	80	.92	615	60	.78	405	60	.70	295
13	80	.94	670	60	.79	445	60	.71	320
14	80	.97	710	60	.82	470	60	.73	335
15	80	1.02	760	80	.90	550	60	.77	370
16	80	1.02	800	80	.90	560	60	.77	380
17	80	1.07	870	80	.95	610	60	.81	405
18	80	1.07	895	80	.95	625	60	.81	420
19	80	1.07	920	80	.95	640	60	.81	435
20	80	1.13	980	80	1.00	685	80	.90	490
23	80	1.18	1125	80	1.04	775	80	.94	575
25	80	1.26	1250	80	1.11	840	80	.99	605
27	80	1.28	1330	80	1.13	900	80	1.01	665
29	80	1.30	1370	80	1.14	950	80	1.02	705
31	80	1.36	1510	80	1.19	1015	80	1.07	750
32	80	1.38	1565	80	1.21	1055	80	1.09	775
37	80	1.44	1755	80	1.26	1210	80	1.13	840

- NOTES: 1. Single conductor 30 mils high molecular weight polyethylene insulation and 15 mils polyvinyl chloride jacket, no further covering.
2. Single conductor not recommended for direct earth burial.
3. Color coding per TECH I005.

Information on this sheet subject to change without notice.

Specification

Single- and Multi-Conductor Polyethylene Insulated, PVC Jacketed Control Cable, Type CT-B, 600 Volts

1. SCOPE

- 1.1 This specification describes single- and multi-conductor control cables insulated and jacketed with thermoplastic compounds for use on control circuits not exceeding 600 volts between conductors, recommended for operation at 75°C maximum continuous conductor temperature. Cables may be installed in open air, in ducts or conduit, in trays or troughs, and direct burial. Single conductor cables are not recommended for direct earth burial.

2. APPLICABLE STANDARD

- 2.1 The following standard shall form a part of this specification to the extent specified herein:
 - 2.1.1 ICEA Pub. No. S-73-532, NEMA Pub. No. WC57, Control Cables.

3. CONDUCTORS

- 3.1 Conductors shall be concentrically stranded, Class B, uncoated soft copper, conforming to Part 2 of ICEA S-73-532. Conductor sizes shall be American Wire Gauge No. 14, No. 12, and No. 10.

4. INSULATION

- 4.1 **Compound:** Each conductor shall be insulated with black high molecular weight, low density polyethylene, meeting the requirements of ICEA S-73-532, Par. 3.3 and ASTM Specification D-1248 for Type 1, Class C, Category 5, Grade E4 or E5.
- 4.2 **Thickness:** The average thickness of insulation for single conductor control cable shall be 30 mils. The average thickness of insulation for single conductors to be used in multi-conductor assemblies shall be 20 mils. 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.

5. COVERING OVER INSULATION

- 5.1 **Compound:** Each individual polyethylene insulated conductor shall be covered with a color coded PVC (polyvinyl chloride) compound, meeting the physical and aging requirements of Table 3-2 of ICEA S-73-532.
- 5.2 **Thickness:** The average thickness of the PVC covering for single conductor control cable shall be 15 mils. The average thickness of the PVC covering for single conductors to be used in multi-conductor assemblies shall be 10 mils. The minimum thickness at any point shall be not less than 90% of the specified thickness.
- 5.3 **Color Coding:** The color coding shall consist of colored PVC compound with colored bands applied to the surface in accordance with the first 21 colors of ICEA S-73-532, Appendix E, Table E-1 (TECH I005). For cables with more than 21 conductors, the colors shall be repeated as necessary.

6. ASSEMBLY

- 6.1 For three conductors or more, the insulated color coded conductors shall be cabled together with nonhygroscopic fillers when necessary to make round. The cable assembly shall be covered with a polyester tape applied with a 10% minimum lap. Two conductor cable shall be flat without separator tape, unless otherwise specified.

7. OVERALL JACKET

- 7.1 Each multi-conductor cable shall have a PVC protective jacket applied over the assembly. This jacket shall meet the requirements of Part 4 of ICEA S-73-532. The average thickness of the jacket shall be in accordance with ICEA S-73-532, Table 4-1. The minimum thickness at any point shall be not less than 80% of the specified average thickness.

8. SURFACE MARKING

- 8.1 Multi-conductor cables shall be identified by means of surface ink printing indicating: manufacturer, number of conductors, size and voltage rating.

9. TESTS

- 9.1 Individual conductors and completed cables shall be tested in accordance with the applicable tests as described in ICEA S-73-532, Part 6.

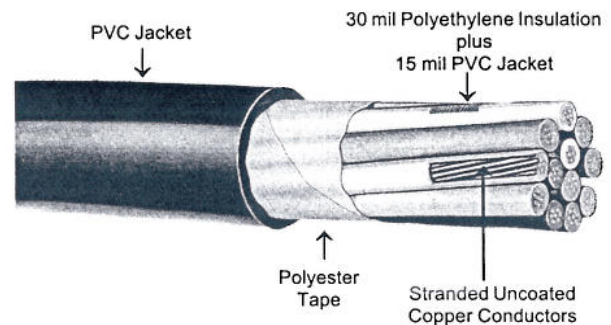
ROME TYPE CT-C CONTROL CABLE, 1000 VOLTS

Polyethylene - PVC Singles, PVC Jacket
General Purpose Control Cable

APPLICATION: Standard general purpose control cable for important control circuits in industrial plants and station control cable for utilities. Suitable for the operation of circuits with heavy magnetic trip of break devices where inductively induced over voltages may occur; rated circuit voltage 1000 volts, recommended for operation at 75°C maximum continuous conductor temperature. Cables may be installed in open air, in ducts or conduit, in tray or trough and direct burial.

STANDARDS: Physical and electrical tests in accordance with appropriate sections of ICEA S-73-532, NEMA Pub. No. WCS7.

CONSTRUCTION: Stranded uncoated copper conductors, 30 mils black high molecular weight polyethylene insulation, 15 mils full color coded PVC Jacket⁽¹⁾ over each insulated conductor, two conductors flat, three or more conductors twisted with suitable fillers where necessary to make round, polyester tape over assembly, PVC jacket overall, surface printed.



Number of Conductors	#10 AWG - 7 Strand			#12 AWG - 7 Strand			#14 AWG - 7 Strand		
	Overall PVC Jacket Mils	Nom. Diam. Inches	Approx. Net Weight Lb./1000 Ft.	Overall PVC Jacket Mils	Nom. Diam. Inches	Approx. Net Weight Lb./1000 Ft.	Overall PVC Jacket Mils	Nom. Diam. Inches	Approx. Net Weight Lb./1000 Ft.
1	(1)	.24	45	(1)	.22	35	(1)	.20	25
2 Flat	45	.31 x .52	130	45	.28 x .47	95	45	.26 x .43	75
3	60	.59	205	45	.50	145	45	.46	105
4	60	.64	260	60	.58	190	45	.50	140
5	60	.70	310	60	.63	240	60	.58	180
6	60	.76	370	60	.69	275	60	.63	205
7	60	.76	400	60	.69	290	60	.63	220
8	80	.87	465	60	.75	340	60	.68	270
9	80	.93	560	60	.80	390	60	.73	295
10	80	1.02	605	80	.92	470	60	.80	330
11	80	1.02	660	80	.92	485	60	.80	360
12	80	1.05	700	80	.95	515	60	.82	380
13	80	1.07	755	80	.96	550	80	.88	420
14	80	1.11	800	80	1.00	580	80	.91	445
15	80	1.17	880	80	1.05	645	80	.95	485
16	80	1.17	910	80	1.05	660	80	.95	500
17	80	1.23	985	80	1.10	715	80	1.00	530
18	80	1.23	1010	80	1.10	730	80	1.00	550
19	80	1.23	1040	80	1.10	745	80	1.00	575
20	80	1.30	1150	80	1.16	810	80	1.06	610
23	80	1.36	1310	80	1.22	915	80	1.11	680
25	80	1.44	1415	80	1.29	1025	80	1.17	735
27	80	1.48	1500	80	1.32	1085	80	1.20	780
29	80	1.49	1595	80	1.34	1150	80	1.21	835
31	80	1.56	1705	80	1.39	1225	80	1.26	885
32	80	1.59	1735	80	1.42	1275	80	1.29	910
37	80	1.67	1980	80	1.48	1415	80	1.34	1025

- NOTES: 1. Single conductor 45 mils high molecular weight polyethylene insulation and 15 mils polyvinyl chloride jacket, no further covering.
2. Single conductor cable not recommended for direct earth burial.
3. Color coding per TECH I005.

Information on this sheet subject to change without notice.

Specification

Single and Multi-Conductor Polyethylene Insulated, PVC Jacketed Control Cable, Type CT-C, 1000 Volts

1. SCOPE

- 1.1 This specification describes single and multi-conductor control cables insulated and jacketed with thermoplastic compounds for use on control circuits not exceeding 1000 volts between conductors, recommended for operation at 75°C maximum continuous conductor temperature. Cables may be installed in open air, in ducts or conduit, in trays or troughs, and direct burial. Single conductor cables are not recommended for direct earth burial.

2. APPLICABLE STANDARD

- 2.1 The following standard shall form a part of this specification to the extent specified herein:
 - 2.1.1 ICEA Pub. No. S-73-532, NEMA Pub. No. WC57, Control Cables.

3. CONDUCTORS

- 3.1 Conductors shall be concentrically stranded, Class B, uncoated soft copper, conforming to Part 2 of ICEA S-73-532. Conductor sizes shall be American Wire Gauge No. 14, No. 12, and No. 10.

4. INSULATION

- 4.1 **Compound:** Each conductor shall be insulated with black high molecular weight, low density polyethylene, meeting the requirements of ICEA S-73-532, Par. 3.3 and ASTM Specification D-1248 for Type 1, Class C, Category 5, Grade E4 or E5.
- 4.2 **Thickness:** The average thickness of insulation for single conductor control cable shall be 45 mils. The average thickness of insulation for single conductors to be used in multi-conductor assemblies shall be 30 mils. 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.

5. COVERING OVER INSULATION

- 5.1 **Compound:** Each individual polyethylene insulated conductor shall be covered with a color coded PVC (polyvinyl chloride) compound, meeting the physical and aging requirements of Table 3-2 of ICEA S-73-532.
- 5.2 **Thickness:** The average thickness of the PVC covering for single conductor control cable shall be 15 mils. The average thickness of the PVC covering for single conductors to be used in multi-conductor assemblies shall be 15 mils. The minimum thickness at any point shall be not less than 90% of the specified thickness.
- 5.3 **Color Coding:** The color coding shall consist of colored PVC compound with colored bands applied to the surface in accordance with the first 21 colors of ICEA S-73-532, Appendix E, Table E-1 (TECH I005). For cables with more than 21 conductors, the colors shall be repeated as necessary.

6. ASSEMBLY

- 6.1 For three conductors or more, the insulated color coded conductors shall be cabled together with nonhygroscopic fillers when necessary to make round. The cable assembly shall be covered with a polyester tape applied with a 10% minimum lap. Two conductor cable shall be flat without separator tape, unless otherwise specified.

7. OVERALL JACKET

- 7.1 Each multi-conductor cable shall have a PVC protective jacket applied over the assembly. This jacket shall meet the requirements of Part 4 of ICEA S-73-532. The average thickness of the jacket shall be in accordance with ICEA S-73-532, Table 4-1. The minimum thickness at any point shall be not less than 80% of the specified average thickness.

8. SURFACE MARKING

- 8.1 Multi-conductor cables shall be identified by means of surface ink printing indicating: manufacturer, number of conductors, size and voltage rating.

9. TESTS

- 9.1 Individual conductors and completed cables shall be tested in accordance with the applicable tests as described in ICEA S-73-532, Part 6.

ROME TRAY CABLE, TYPE TC

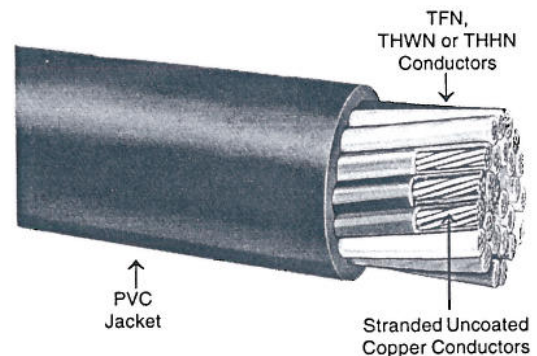
TFN, THWN or THHN Conductors, PVC Jacket, 600 Volts

APPLICATION: As flame-retardant multi-conductor control, signal or power cables rated 600 volts, 90°C in dry locations³, 75°C in wet locations. Specifically approved for installation in cable trays per Article 336 of the NEC. Also approved for use in Class 1 remote-control and signaling circuits per Article 725 of the NEC. Type TC cable is suitable 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, and are suitable for direct burial.

STANDARDS:

1. Listed by UL as Type TC Tray Cable per Article 336 of the NEC.
2. Individual conductors UL listed as Type THWN or THHN (14-10 AWG) or Type TFN (16 AWG).
3. Overall jacket UL listed as Sunlight Resistant.
4. Cables UL listed for Direct Burial (14-10 AWG).
5. Cables with grounding conductor UL listed for Open Wiring.
6. Cables pass UL and IEEE-383 ribbon burner tests and ICEA 210,000 BTU/hour test.

CONSTRUCTION: Individual conductors of stranded uncoated copper Type TFN (16 AWG), Type THWN or THHN (14-10 AWG), color coded, two conductors flat, three or more conductors twisted, PVC jacket overall, surface printed.



No. of Condrs.	# 10 AWG-7 Strand			# 12 AWG-7 Strand			# 14 AWG-7 Strand			# 16 AWG-7 Strand		
	Over-all PVC Jacket Mils	Nom. Diam. Inches	Approx. Net Wt. Lb./ 1000 Ft.	Over-all PVC Jacket Mils	Nom. Diam. Inches	Approx. Net Wt. Lb./ 1000 Ft.	Over-all PVC Jacket Mils	Nom. Diam. Inches	Approx. Net Wt. Lb./ 1000 Ft.	Over-all PVC Jacket Mils	Nom. Diam. Inches	Approx. Net Wt. Lb./ 1000 Ft.
2	45	.26 x .43	110	45	.23 x .37	75	45	.21 x .33	55	45	.20 x .30	40
3	45	.46	155	45	.36	105	45	.34	75	45	.32	60
3w/g	45	.47	194	45	.40	130	45	.35	92	-	-	-
4	45	.50	200	45	.40	135	45	.37	100	45	.34	75
5	60	.58	265	45	.45	165	45	.41	115	45	.37	85
6	60	.63	315	45	.50	195	45	.44	140	45	.40	100
7	60	.63	345	45	.50	215	45	.44	150	45	.40	110
8	60	.69	420	60	.58	260	45	.48	170	45	.44	130
9	60	.73	450	60	.62	300	45	.51	195	45	.47	140
10	60	.81	500	60	.66	325	60	.58	220	45	.51	155
11	60	.81	540	60	.66	350	60	.58	240	45	.51	170
12	60	.82	580	60	.68	375	60	.60	265	60	.55	200
13	80	.89	680	60	.70	400	60	.62	280	60	.56	210
14	80	.92	725	60	.73	425	60	.64	295	60	.58	225
15	80	.95	745	60	.76	455	60	.66	310	60	.61	240
16	80	.95	810	60	.76	485	60	.66	340	60	.61	250
17	80	1.02	860	60	.79	515	60	.70	355	60	.64	265
18	80	1.02	900	60	.79	545	60	.70	370	60	.64	275
19	80	1.02	940	60	.79	565	60	.70	390	60	.64	285
20	80	1.07	990	80	.89	590	60	.73	415	60	.67	305
23	80	1.12	1120	80	.93	690	60	.78	475	60	.70	340
25	80	1.19	1210	80	.96	770	80	.85	540	60	.74	370
27	80	1.22	1295	80	1.00	840	80	.88	570	60	.76	395
29	80	1.23	1375	80	1.01	910	80	.90	600	60	.77	420
31	80	1.29	1465	80	1.06	950	80	.92	640	60	.80	445
32	80	1.31	1510	80	1.08	1000	80	.94	660	60	.82	460
37	80	1.36	1710	80	1.10	1090	80	.96	755	80	.89	550

- Notes: 1. Cables designated (w/g) contain an additional bare copper grounding conductor, same size as circuit conductors, and are UL listed for Open Wiring.
 2. Standard color coding is ICEA Method 1 for NEC applications. This color coding method omits white and green from the color sequence (TECH 1006 Option A). ICEA Method 4 color coding is also provided. This consists of printed numbers and words, 1-ONE, 2-TWO, etc..
 3. Size 16 AWG is rated 90°C dry only.

Specification

ROME TRAY CABLE, TYPE TC

TFN, THWN or THHN Conductors, PVC Jacket, 600 Volts

1. SCOPE

- 1.1 This specification describes multi-conductor Rome Tray Cable, Type TC with TFN, THWN or THHN conductors and PVC jacket overall, for use on circuits rated 600 volts. Cables are recommended for operation at 90°C maximum continuous conductor temperature in dry locations and 75°C for wet locations. (Size 16 AWG is rated 90°C in dry locations only). The cables are specifically approved for installation in cable trays in accordance with Article 336 of the NEC and may also be used in Class 1 remote-control and signaling circuits per Article 725 of the Code. Cables may be installed in air, in ducts or conduits, in tray or trough, and are also suitable for direct burial. [Cables with ground are UL listed as Open Wiring per NEC 336.10(6)].

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 62 for Flexible Cord and Fixture Wire.
 - 2.1.3 Underwriters Laboratories Standard 83 for Thermoplastic Insulated Wires.

3. CONDUCTORS

- 3.1 Conductors shall be Class B stranded uncoated soft copper conforming to UL Standards 62 and 83. Conductor sizes shall be 16 AWG through 10 AWG.

4. INSULATION

- 4.1 **Compound:** Each conductor shall be insulated with PVC, meeting the requirements of UL Standard 62 for Type TFN wire or UL Standard 83 for Type THWN or THHN wire.
- 4.2 **Thickness:** The average thickness of insulation shall be 15 mils for sizes 16-12 AWG and 20 mils for size 10 AWG. 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.

5. JACKET

- 5.1 **Compound:** Each insulated conductor shall be jacketed with Nylon, meeting the requirements of UL Standard 62 for Type TFN wire or UL Standard 83 for Type THWN or THHN wire.
- 5.2 **Thickness:** The minimum thickness of Nylon shall not be less than 4 mils at any point.

6. CIRCUIT IDENTIFICATION

- 6.1 Circuit identification shall consist of Method 1 color coding for NEC applications. Cables shall not contain a green or white conductor unless specifically ordered (TECH I006 Option A). Conductors shall also be identified with ICEA Method 4 color coding consisting of printed numbers and words 1-ONE, 2-TWO, etc..

7. ASSEMBLY

- 7.1 Two (2) conductor cable shall be flat, unless otherwise specified. For three (3) conductors or more, the insulated conductors shall be cabled together with fillers where necessary to make round. Where indicated, a bare copper grounding conductor of the same size as the circuit conductors shall be included in the assembly.

8. OVERALL JACKET

- 8.1 **Compound:** Each cable shall have a PVC protective jacket applied over the assembly. The jacket properties shall be as specified in UL Standard 1277 for 75°C PVC jacket compound. The jacket shall meet the Sunlight Resistant requirements of UL Standard 1277.
- 8.2 **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.

9. SURFACE MARKING

- 9.1 Cables shall be identified by means of surface ink printing indicating: Rome TC, (UL), 600v, No. of Conductors, Size, THWN or THHN (or TFN) Conductors, Sun. Res., Direct Burial, (14-10 AWG), E57349. Sizes 14-10 AWG with ground shall be printed Open Wiring.

10. TESTS

- 10.1 Individual conductors and completed cables shall be tested in accordance with UL requirements for Type TC Power and Control Tray Cables having THWN or THHN (or TFN) conductors.
- 10.2 Cables shall be capable of passing the ribbon burner cable tray flame test requirements of UL and IEEE.

ROME TRAY CABLE, TYPE TC

THWN or THHN Conductors, PVC Jacket, 600 Volts

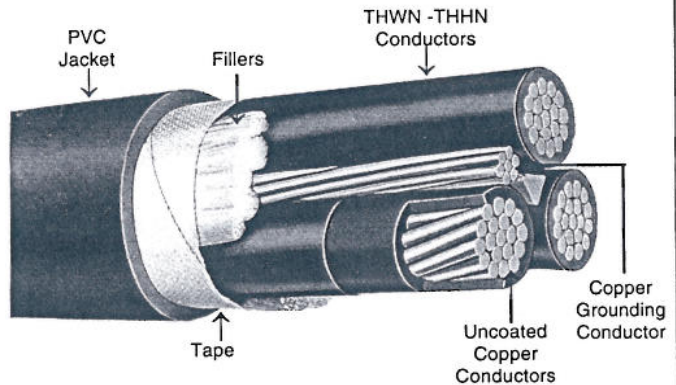
Three Conductor with Grounding Conductor

APPLICATION: As flame-retardant three conductor power cables rated 600 volts, 90°C in dry locations, 75°C in wet 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 Article 336 of the NEC.
2. Individual conductors UL listed as Type THWN or THHN.
3. Overall jacket UL listed as Sunlight Resistant.
4. Cables UL listed for Direct Burial.
5. Cables UL listed for Open Wiring.
6. Cables pass UL and IEEE-383 ribbon burner flame tests and ICEA 210,000 BTU/hour test.

CONSTRUCTION: Individual conductors of stranded uncoated copper Type THWN or THHN, surface print phase identification. Three insulated conductors twisted with a Class B stranded uncoated copper grounding conductor and fillers, cable tape, PVC 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 *	
		PVC Insulation	Nylon Jacket	Overall PVC Jacket				90°C Dry	75°C Wet
8	7	30	5	60	.62	10	315	55	50
6	7	30	5	60	.70	8	445	75	65
4	7	40	6	80	.88	8	675	95	85
2	7	40	6	80	1.01	6	995	130	115
1	19	50	7	80	1.14	6	1200	150	130
1/0	19	50	7	80	1.23	6	1480	170	150
2/0	19	50	7	80	1.32	6	1770	195	175
3/0	19	50	7	80	1.43	4	2180	225	200
4/0	19	50	7	80	1.56	4	2690	260	230
250	37	60	8	110	1.76	4	3225	290	255
350	37	60	8	110	1.98	3	4370	350	310
500	37	60	8	110	2.26	2	5960	430	380
750	61	70	9	110	2.71	1	9050	535	475
1000	61	70	9	140	3.10	1/0	11720	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; 90°C conductor temperature for dry locations, 75°C conductor temperature for wet locations, 30°C ambient temperature.

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

Specification

ROME TRAY CABLE, TYPE TC

THWN or THHN Conductors, PVC Jacket, 600 Volts Three Conductor with Grounding Conductor

1. SCOPE

- 1.1 This specification describes three conductor Rome Type TC Tray Cable with THWN or THHN conductors and PVC jacketed overall, for use on circuits rated 600 volts. Cables are recommended for operation at 90°C maximum continuous conductor temperature in dry locations, and 75°C for wet 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, in open wiring 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 83 for Thermoplastic Insulated Wires.

3. CONDUCTORS

- 3.1 Conductors shall be Class B stranded uncoated soft copper conforming to UL Standard 83.

4. INSULATION

- 4.1 **Compound:** Each phase conductor shall be insulated with PVC, meeting the requirements of UL Standard 83 for Type THWN or THHN wire.
- 4.2 **Thickness:** The average thickness of insulation shall be as specified in UL Standard 83 for Type THWN or THHN wire. The minimum thickness at any point shall be not less than 90% of the specified average thickness.

5. JACKET

- 5.1 **Compound:** Each insulated conductor shall be jacketed with Nylon, meeting the requirements of UL Standard 83 for Type THWN or THHN wire.
- 5.2 **Thickness:** The minimum thickness of Nylon shall not be less than specified in UL Standard 83 for Type THWN or THHN wire.

6. PHASE IDENTIFICATION

- 6.1 The insulated phase conductors shall be black in color and shall be printed with alpha-numeric numbers on two opposite sides (1-ONE, 2-TWO, etc.).

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 PVC protective jacket applied over the taped assembly. The jacket shall meet the requirements of Standard 1277 for 75°C PVC jacket compound and the Sunlight Resistant 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: Rome Cable, TC, (UL), 600v, No. of Conductors, Size, THWN or THHN Conductors, Sun Res., Direct Burial, Open Wiring, E57349.

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 THWN or THHN conductors.
- 11.2 Cables shall be capable of passing the ribbon burner cable tray flame test requirements of UL and IEEE.

ROME TRAY CABLE, TYPE TC

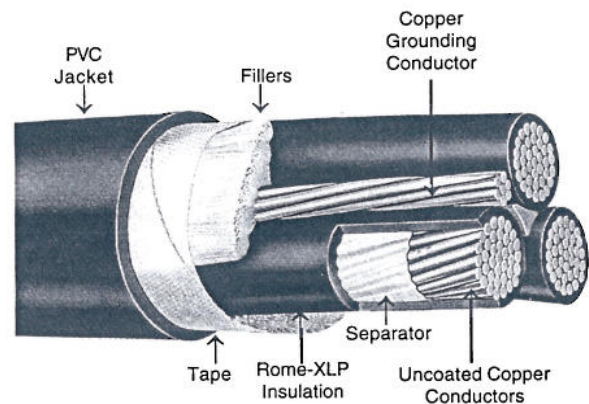
Rome-XLP XHHW-2 Conductors, PVC Jacket, 600 Volts Three Conductor with Grounding Conductor

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 per Standard 1277 for Tray Cables.
2. Individual conductors UL listed as Type XHHW-2.
3. Overall jacket UL listed as Sunlight Resistant.
4. Cables pass UL and IEEE-383 ribbon burner flame tests.
5. Cables pass IEEE1202/CSA FT4 (70,000 BTU/hr) cable tray flame test (2AWG and larger).
6. Cables UL listed for Direct Burial.
7. Cables UL listed for Open Wiring.
8. Cables meet requirements of ICEA S-95-658/NEMA WC70.

CONSTRUCTION: Class B stranded uncoated copper conductor, Rome-XLP 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, PVC 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	325	55	50
6	7	45	60	.74	8	450	75	65
4	7	45	80	.88	8	655	95	85
2	7	45	80	1.00	6	960	130	115
1	19	55	80	1.13	6	1170	150	130
1/0	19	55	80	1.22	6	1435	170	150
2/0	19	55	80	1.31	6	1730	195	175
3/0	19	55	80	1.42	4	2150	225	200
4/0	19	55	80	1.55	4	2620	260	230
250	37	65	110	1.76	4	3180	290	255
350	37	65	110	1.98	3	4290	350	310
500	37	65	110	2.26	2	5940	430	380
750	61	80	110	2.71	1	8660	535	475
1000	61	80	140	3.10	1/0	11700	615	545

*AMPACITY in accordance with the National Electrical Code for cables in uncovered cable tray without maintained spacing and for cable 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.

Specification

ROME TRAY CABLE, TYPE TC

Rome-XLP XHHW-2 Conductors, PVC 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-XLP crosslinked polyethylene and PVC 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, in open wiring, 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 and NEMA Pub. No. WC70 for 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-XLP chemically crosslinked polyethylene, meeting the requirements of ICEA S-95-658, Table 3-7, Class X-2 and Type XHHW-2 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 PVC protective jacket applied over the taped assembly. The jacket shall meet the requirements of ICEA Table 4-1 and the Sunlight Resistant requirements of UL Standard 1277.
9.2 **Thickness:** The average jacket thickness shall be accordance with UL Standard 1277. The minimum thickness at any point shall be not less than 80% of the specified 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.

ROME TRAY CABLE, TYPE TC

Rome-XLP XHHW-2 Conductors, PVC Jacket, 600 Volts Four Conductor with Grounding Conductors

<p>APPLICATION: As flame-retardant four 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.</p> <p>STANDARDS:</p> <ol style="list-style-type: none"> Listed by UL as Type TC per Standard 1277 for Tray Cables. Individual conductors UL listed as Type XHHW-2. Overall jacket UL listed as Sunlight Resistant. Cables pass UL and IEEE-383 ribbon burner flame tests. Cables pass IEEE 1202/ CSA FT4 (70,000 BTU/hr) cable tray flame test (2 AWG and larger). Cables UL listed for Direct Burial. Cables UL listed for Open Wiring. Cables meet requirements of ICEA S-95-658/NEMA WC70. <p>CONSTRUCTION: Class B stranded uncoated copper conductor, Rome-XLP crosslinked polyethylene insulation, surface print phase identification. Four insulated conductors twisted with a Class B stranded uncoated copper grounding conductor in two opposite valleys, suitable fillers, cable tape, PVC jacket overall, surface printed.</p>								
FOUR CONDUCTORS WITH GROUNDING CONDUCTORS								
Size AWG or kcmil	No. of Strands	Thickness in Mils		Nominal Diameter Inches	Gnd. Cond. Size In Two Valleys AWG ⁽¹⁾	Approx. Net Wt. Lb./1000 Ft.	Ampacity *	
		Insulation	Jacket				90°C	75°C
8	7	45	60	.72	12	415	44	40
6	7	45	60	.81	10	575	60	52
4	7	45	80	.96	10	840	76	68
2	7	45	80	1.10	9	1200	104	92
1	19	55	80	1.25	9	1545	120	104
1/0	19	55	80	1.35	9	1835	136	120
2/0	19	55	80	1.45	9	2195	156	140
3/0	19	55	80	1.58	7	2800	180	160
4/0	19	55	110	1.77	7	3460	208	184
250	37	65	110	1.93	7	4040	232	204
350	37	65	110	2.18	6	5475	280	248
500	37	65	110	2.50	5	7635	344	304
750	61	80	140	3.12	4	11400	428	380

*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 conductors per UL Standard 1277 for Type TC Tray Cable.

Information on this sheet subject to change without notice.

Specification

ROME TRAY CABLE, TYPE TC

Rome-XLP XHHW-2 Conductors, PVC Jacket, 600 Volts

Four Conductor with Grounding Conductors

1. SCOPE

- 1.1 This specification describes four conductor Rome Type TC Tray Cable insulated with Rome-XLP crosslinked polyethylene and PVC 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, in open wiring, 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 and NEMA Pub. No. WC70 for 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-XLP chemically crosslinked polyethylene, meeting the requirements of ICEA S-95-658, Table 3-7, Class X-2 and Type XHHW-2 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", "3" and "4" on their surface.

7. ASSEMBLY

- 7.1 Four phase conductors shall be cabled together with a Class B stranded, uncoated copper grounding conductor in two opposite valleys, and suitable nonhygroscopic fillers to make round. Length of lay shall not exceed 40 times the phase conductor diameter. Total circular mil area of the two grounding conductors shall be not less than the circular mil area of the grounding conductor listed in 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 PVC protective jacket applied over the taped assembly. The jacket shall meet the requirements of ICEA Table 4-1 and the Sunlight Resistant 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.

ROME TRAY CABLE, TYPE TC

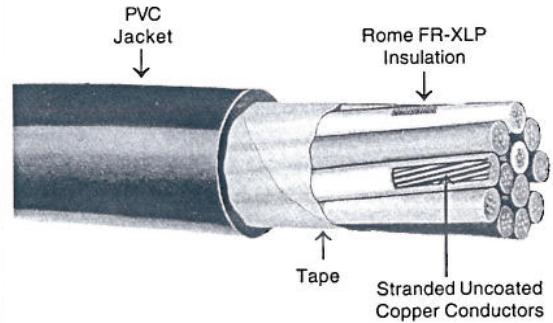
Rome FR-XLP Insulation, PVC Jacket, 600 Volts

APPLICATION: As superior flame-retardant multi-conductor control, signal or power cables rated 600 volts, 90°C in wet or dry locations. Specifically approved for installation in cable tray per Article 336 of the NEC. Also approved for use in Class 1 remote-control and signaling circuits per Article 725 of the NEC. Type TC cable is suitable 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, and are suitable for direct burial.

STANDARDS:

1. Listed by UL as Type TC per Standard 1277 for Tray Cables.
2. Cables UL listed for Direct Burial.
3. Individual conductors pass UL VW-1 flame test.
4. Individual conductors UL listed as Type XHHW-2 (14-10 AWG) or 90°C rated conductors (16 AWG).
5. Overall jacket UL listed as Sunlight Resistant.
6. Cables with grounding conductor UL listed for Open Wiring.
7. Cables pass IEEE Standard 383 ribbon burner test and ICEA 210,000 BTU/hr test.
8. Cables pass IEEE-1202/CSA FT4 (70,000 BTU/hr) cable tray flame test (14-10 AWG).
9. Cables meet requirements of ICEA S-73-532, NEMA WC57 for Control Cables.

CONSTRUCTION: Stranded uncoated copper conductors, 30 mils Rome FR-XLP flame-retardant crosslinked polyethylene insulation, color coded, two conductors flat, three or more conductors twisted with suitable fillers where necessary to make round, cable tape, PVC jacket overall, surface printed.



No. of Condrs.	# 10 AWG-7 Strand			# 12 AWG-7 Strand			# 14 AWG-7 Strand			# 16 AWG-7 Strand		
	Overall PVC Jacket Mils	Nom. Diam. Inches	Approx. Net Wt. Lb./ 1000 Ft.	Overall PVC Jacket Mils	Nom. Diam. Inches	Approx. Net Wt. Lb./ 1000 Ft.	Overall PVC Jacket Mils	Nom. Diam. Inches	Approx. Net Wt. Lb./ 1000 Ft.	Overall PVC Jacket Mils	Nom. Diam. Inches	Approx. Net Wt. Lb./ 1000 Ft.
2	45	.28 x .46	117	45	.25 x .41	85	45	.23 x .37	65	45	.23 x .35	65
3	45	.49	167	45	.44	120	45	.39	90	45	.37	70
3 w/g	45	.49	205	45	.44	143	-	-	-	-	-	-
4	60	.57	230	45	.48	154	45	.43	113	45	.39	87
5	60	.62	280	45	.53	190	45	.47	137	45	.44	105
6	60	.67	325	60	.60	235	45	.51	160	45	.48	120
7	60	.67	370	60	.60	265	45	.51	180	45	.48	140
8	60	.74	415	60	.67	300	60	.59	220	45	.51	155
9	60	.79	455	60	.70	340	60	.63	250	45	.58	200
10	80	.90	550	60	.77	370	60	.69	270	60	.63	230
11	80	.90	595	60	.77	400	60	.69	290	60	.63	240
12	80	.93	640	60	.79	430	60	.70	310	60	.67	255
13	80	.95	685	60	.80	465	60	.72	335	60	.67	270
14	80	.97	725	60	.83	500	60	.74	360	60	.68	290
15	80	1.03	775	80	.92	535	60	.78	380	60	.71	315
16	80	1.03	820	80	.92	570	60	.78	400	60	.71	325
17	80	1.08	865	80	.96	605	60	.82	420	60	.75	350
18	80	1.08	905	80	.96	640	60	.82	440	60	.75	360
19	80	1.08	965	80	.96	675	60	.82	460	60	.75	370
20	80	1.14	1010	80	1.01	710	80	.90	525	60	.79	400
23	80	1.19	1145	80	1.06	815	80	.95	595	60	.82	450
25	80	1.26	1235	80	1.12	890	80	1.00	640	80	.91	530
27	80	1.29	1325	80	1.15	960	80	1.02	680	80	.93	560
29	80	1.31	1415	80	1.16	1030	80	1.03	720	80	.94	585
31	80	1.36	1505	80	1.21	1100	80	1.07	760	80	.98	625
32	80	1.39	1550	80	1.23	1135	80	1.10	780	80	.99	650
37	80	1.44	1775	80	1.28	1310	80	1.14	890	80	1.03	720

- Notes: 1. Cables designated (w/g) contain an additional bare copper grounding conductor, same size as circuit conductors, and are UL listed for Open Wiring.
 2. Standard color coding is Method 1 for NEC Applications per Appendix E, Table E-2 of ICEA S-73-532 (TECH 1006). This color coding method omits white and green from the color sequence. A white or green conductor can be supplied on request.
 3. Cable sizes 12-10 AWG approved under FAA Advisory Circular 150/5345-7E per Spec L-824 Airport Lighting Cable, Type C.

Information on this sheet subject to change without notice.

Specification

ROME TRAY CABLE, TYPE TC ROME FR-XLP Insulation, PVC Jacket, 600 Volts

1. SCOPE

- 1.1 This specification describes multi-conductor Rome Type TC Tray Cable insulated with Rome FR-XLP flame-retardant crosslinked polyethylene and PVC 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 and may also be used in Class 1 remote-control and signaling circuits per Article 725 of the Code. Cables may be installed in air, in ducts or conduits, in tray or trough, and are also suitable for direct burial. [Cables with ground are UL listed as Open Wiring per NEC 336.10(6)].

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-73-532, NEMA Pub. No. WC57, Control Cables.

3. CONDUCTORS

- 3.1 Conductors shall be Class B stranded uncoated soft copper conforming to Part 2 of ICEA. Conductor sizes shall be 16 AWG through 10 AWG. A nonhygroscopic separator may be used over the conductors at the option of the manufacturer.

4. INSULATION

- 4.1 **Compound:** Each conductor shall be insulated with Rome FR-XLP flame-retardant chemically crosslinked polyethylene, meeting the requirements of ICEA S-73-532, Table 3-2 (Type I-XLPE) and Type XHHW-2, VW-1 requirements of Underwriter's Laboratories.
- 4.2 **Thickness:** The average thickness of insulation shall be 30 mils. The minimum thickness at any point shall be not less than 90% of the specified average thickness.

5. CIRCUIT IDENTIFICATION

- 5.1 Circuit identification shall consist of Method 1 color coding for National Electric Code applications in accordance with ICEA S-73-532, Appendix E, Table E-2. Cables shall not contain a green or white conductor unless specifically ordered (TECH1006 Option A).

6. ASSEMBLY

- 6.1 Two conductor cable shall be flat without separator tape, unless otherwise specified. For three conductors or more, the insulated color coded conductors shall be cabled together with nonhygroscopic fillers, when necessary to make round. The cable assembly shall be covered with a suitable tape applied with a 10% minimum lap. Where indicated, a bare copper grounding conductor of the same size as the circuit conductors shall be included in the assembly.

7. OVERALL JACKET

- 7.1 **Compound:** Each cable shall have a PVC protective jacket applied over the assembly. The jacket shall meet the requirements of Part 4 of ICEA S-73-532, Table 4-2, and the Sunlight Resistant requirements of UL Standard 1277.
- 7.2 **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.

8. SURFACE MARKING

- 8.1 Cables shall be identified by means of surface ink printing indicating: Rome Cable, Type TC, (UL), 600V, No. of conductors, Size, XHHW-2 (or 90°C) Condrs., Sun. Res., Direct Burial, E57349. Sizes 14-12 AWG with ground shall be printed Open Wiring.

9. TESTS

- 9.1 Individual conductors and completed cables shall be tested in accordance with UL requirements for Type TC Power and Control Tray Cables having XHHW-2 VW-1 insulated conductors.
- 9.2 Cables shall be capable of passing the ribbon burner cable tray flame test requirements of UL and IEEE.

ROME TRAY CABLE, TYPE TC

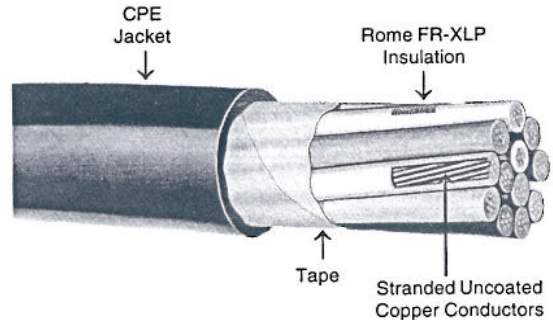
Rome FR-XLP Insulation, CPE Jacket, 600 Volts

APPLICATION: As superior flame-retardant multi-conductor control, signal or 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. Also approved for use in Class 1 remote-control and signaling circuits per Article 725 of the NEC. Type TC cable is suitable 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, and are suitable for direct burial.

STANDARDS:

1. Listed by UL as Type TC per Standard 1277 for Tray Cables.
2. Cables UL listed for Direct Burial (14-10 AWG).
3. Individual conductors pass UL VW-1 flame test.
4. Individual conductors UL listed as Type XHHW-2 (14-10 AWG) or 90°C rated conductors (16 AWG).
5. Overall jacket UL listed as Sunlight Resistant and Oil Resistant II.
6. Cables pass IEEE Standard 383 ribbon burner test and ICEA 210,000 BTU/hour test.
7. Cables meet requirements of ICEA S-73-532, NEMA WC57 for Control Cables.

CONSTRUCTION: Stranded uncoated copper conductors, 30 mils Rome FR-XLP flame-retardant crosslinked polyethylene insulation, color coded, two conductors flat, three or more conductors twisted with suitable fillers where necessary to make round, cable tape, CPE jacket overall, surface printed.



No. of Condrs.	# 10 AWG-7 Strand			# 12 AWG-7 Strand			# 14 AWG-7 Strand			# 16 AWG-7 Strand		
	Overall Jacket Mils	Nom. Diam. Inches	Approx. Net Wt. Lb./ 1000 Ft.	Overall Jacket Mils	Nom. Diam. Inches	Approx. Net Wt. Lb./ 1000 Ft.	Overall Jacket Mils	Nom. Diam. Inches	Approx. Net Wt. Lb./ 1000 Ft.	Overall Jacket Mils	Nom. Diam. Inches	Approx. Net Wt. Lb./ 1000 Ft.
2	45	.28 x .46	117	45	.25 x .41	85	45	.23 x .37	65	45	.23 x .35	65
3	45	.49	167	45	.44	120	45	.39	90	45	.37	70
4	60	.57	230	45	.48	154	45	.43	113	45	.39	87
5	60	.62	280	45	.53	190	45	.47	137	45	.44	105
6	60	.67	325	60	.60	235	45	.51	160	45	.48	120
7	60	.67	370	60	.60	265	45	.51	180	45	.48	140
8	60	.74	415	60	.67	300	60	.59	220	45	.51	155
9	60	.79	455	60	.70	340	60	.63	250	60	.58	200
10	80	.90	550	60	.77	370	60	.69	270	60	.63	230
11	80	.90	595	60	.77	400	60	.69	290	60	.63	240
12	80	.93	640	60	.79	430	60	.70	310	60	.65	255
13	80	.95	685	60	.80	465	60	.72	335	60	.66	270
14	80	.97	725	60	.83	500	60	.74	360	60	.68	290
15	80	1.03	775	80	.92	535	60	.78	380	60	.71	315
16	80	1.03	820	80	.92	570	60	.78	400	60	.71	325
17	80	1.08	865	80	.96	605	60	.82	420	60	.75	350
18	80	1.08	905	80	.96	640	60	.82	440	60	.75	360
19	80	1.08	965	80	.96	675	60	.82	460	60	.75	370
20	80	1.14	1010	80	1.01	710	80	.90	525	60	.79	400
23	80	1.19	1145	80	1.06	815	80	.95	595	60	.82	450
25	80	1.26	1235	80	1.12	890	80	1.00	640	80	.91	530
27	80	1.29	1325	80	1.15	960	80	1.02	680	80	.93	560
29	80	1.31	1415	80	1.16	1030	80	1.03	720	80	.94	585
31	80	1.36	1505	80	1.21	1100	80	1.07	760	80	.98	625
32	80	1.39	1550	80	1.23	1135	80	1.10	780	80	.99	650
37	80	1.44	1775	80	1.28	1310	80	1.14	890	80	1.00	720

Notes: 1. All cables available with bare or covered grounding conductor.
 2. Standard color coding is Method 1 for NEC Applications per Appendix E, Table E-2 of ICEA S-73-532 (TECH 1006). This color coding method omits white and green from the color sequence. A white or green conductor can be supplied on request.

Specification

ROME TRAY CABLE, TYPE TC ROME FR-XLP Insulation, CPE Jacket, 600 Volts

1. SCOPE

- 1.1 This specification describes multi-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 and may also be used in Class 1 remote-control and signaling circuits per Article 725 of the Code. Cables may be installed in air, in ducts or conduits, in tray or trough, and are also suitable for direct burial.

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-73-532, NEMA Pub. No. WC57, Control Cables.

3. CONDUCTORS

- 3.1 Conductors shall be Class B stranded uncoated soft copper conforming to Part 2 of ICEA. Conductor sizes shall be 16 AWG through 10 AWG. A nonhygroscopic separator may be used over the conductors at the option of the manufacturer.

4. INSULATION

- 4.1 **Compound:** Each conductor shall be insulated with Rome FR-XLP flame-retardant chemically crosslinked polyethylene, meeting the requirements of ICEA S-73-532, Table 3-2 (Type I-XLPE) and Type XHHW-2, VW-1 requirements of Underwriter's Laboratories.
- 4.2 **Thickness:** The average thickness of insulation shall be 30 mils. The minimum thickness at any point shall be not less than 90% of the specified average thickness.

5. CIRCUIT IDENTIFICATION

- 5.1 Circuit identification shall consist of Method 1 color coding for National Electric Code applications in accordance with ICEA S-73-532, Appendix E, Table E-2. Cables shall not contain a green or white conductor unless specifically ordered (TECH 1006 Option A).

6. ASSEMBLY

- 6.1 For three conductors or more, the insulated color coded conductors shall be cabled together with nonhygroscopic fillers, when necessary to make round. The cable assembly shall be covered with a suitable tape applied with a 10% minimum lap. Two conductor cable shall be flat without separator tape, unless otherwise specified.

7. OVERALL JACKET

- 7.1 **Compound:** Each cable shall have a Chlorinated Polyethylene (CPE) protective jacket applied over the assembly. The jacket shall meet the requirements of Part 4 of ICEA S-73-532, Table 4-2 (CPE-TP) and the Sunlight Resistant and Oil Resistant II requirements of UL Standard 1277.
- 7.2 **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.

8. SURFACE MARKING

- 8.1 Cables shall be identified by means of surface ink printing indicating: Rome Cable Type TC, (UL), 600v, No. of conductors, Size, XHHW-2 (or 90°C) Condrs., Oil Res II, Sun. Res., Direct Burial, E57349.

9. TESTS

- 9.1 Individual conductors and completed cables shall be tested in accordance with UL requirements for Type TC Power and Control Tray Cables having XHHW-2 VW-1 insulated conductors, and ICEA S-73-532.
- 9.2 Cables shall be capable of passing the ribbon burner cable tray flame test requirements of UL and IEEE.

ROME TRAY CABLE, TYPE TC

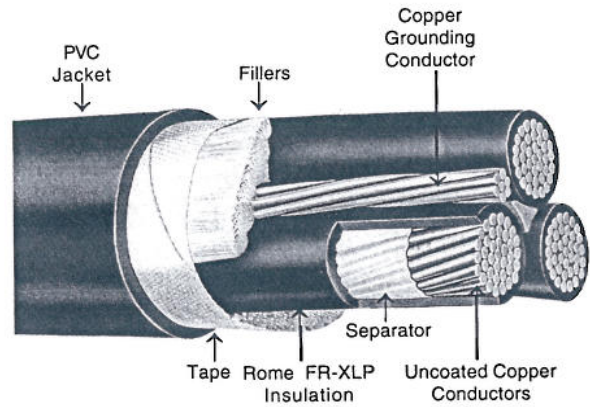
Rome FR-XLP XHHW-2 Conductors, PVC Jacket, 600 Volts
Three Conductor with Grounding Conductor

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 per Standard 1277 for Tray Cable.
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.
5. Cables pass UL and IEEE-383 ribbon burner test and ICEA 210,000 BTU/hour test.
6. Cables pass IEEE 1202/CSA FT4 (70,000 BTU/hr) cable tray flame test (2 AWG and larger).
7. Cables UL listed for Direct Burial.
8. Cables UL listed for Open Wiring.
9. 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, PVC 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	330	55	50
6	7	45	60	.74	8	470	75	65
4	7	45	80	.88	8	680	95	85
2	7	45	80	1.00	6	995	130	115
1	19	55	80	1.13	6	1230	150	130
1/0	19	55	80	1.22	6	1480	170	150
2/0	19	55	80	1.31	6	1780	195	175
3/0	19	55	80	1.42	4	2200	225	200
4/0	19	55	80	1.55	4	2675	260	230
250	37	65	110	1.76	4	3225	290	255
350	37	65	110	1.98	3	4350	350	310
500	37	65	110	2.26	2	6150	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.

Specification

ROME TRAY CABLE, TYPE TC

Rome FR-XLP XHHW-2 Conductors, PVC 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 PVC 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, in open wiring 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 PVC protective jacket applied over the taped assembly. The jacket shall meet the requirements of ICEA Table 4-1 and the Sunlight Resistant 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.

ROME TRAY CABLE, TYPE TC

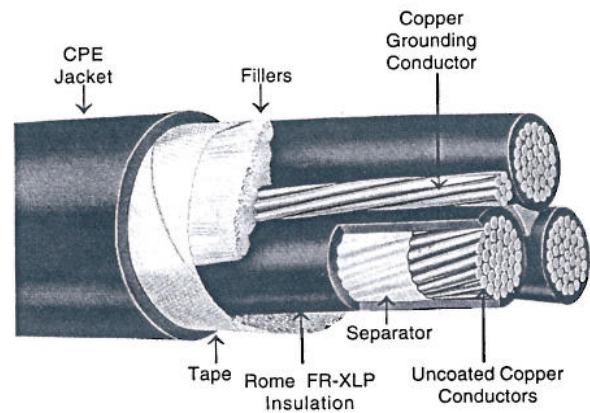
Rome FR-XLP Insulation, CPE Jacket, 600 Volts Three Conductor with Grounding Conductor

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.

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.

ROME TRAY CABLE, TYPE TC

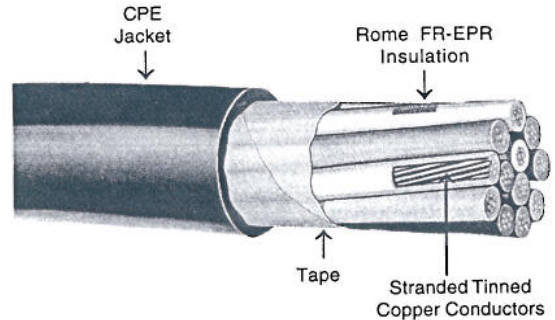
Rome FR-EPR XHHW-2 Conductors, CPE Jacket, 600 Volts

APPLICATION: As superior flame-retardant multi-conductor control, signal or 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. Also approved for use in Class 1 remote-control and signaling circuits per Article 725 of the NEC. Type TC cable is suitable for use in Class I and II, Division 2 hazardous locations. Cables may be installed in air, in ducts or conduits, tray or trough, and are suitable for direct burial.

STANDARDS:

1. Listed by UL as Type TC 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 UL listed for Direct Burial.
6. Cables pass IEEE 383 (70,000 BTU/hr) and ICEA T-29-520 (210,000 BTU/hr) cable tray flame tests.
7. Cables pass IEEE 1202/CSA FT4 (70,000 BTU/hr) cable tray flame test.
8. Cables meet requirements of ICEA S-73-532, NEMA WC57 for Control Cables.

CONSTRUCTION: Stranded tinned copper conductors, 30 mils Rome FR-EPR flame-retardant ethylene-propylene-rubber insulation, color coded, two conductors flat, three or more conductors twisted with suitable fillers where necessary to make round, cable tape, CPE jacket overall, surface printed.



No. of Condrs.	#10 AWG - 7 Strand			#12 AWG - 7 Strand			#14 AWG - 7 Strand		
	Overall CPE Jacket Mils	Nom. Diam. Inches	Approx. Net Wt. Lb./1000 Ft.	Overall CPE Jacket Mils	Nom. Diam. Inches	Approx. Net Wt. Lb./1000 Ft.	Overall CPE Jacket Mils	Nom. Diam. Inches	Approx. Net Wt. Lb./1000 Ft.
2	45	.28 x .46	117	45	.25 x .41	85	45	.23 x .37	65
3	45	.49	167	45	.44	120	45	.39	90
4	60	.57	230	45	.48	154	45	.43	113
5	60	.62	280	45	.53	190	45	.47	137
6	60	.67	325	60	.60	235	45	.51	160
7	60	.67	370	60	.60	265	45	.51	180
8	60	.74	415	60	.67	300	60	.59	220
9	60	.79	455	60	.70	340	60	.63	250
10	80	.90	550	60	.77	370	60	.69	270
11	80	.90	595	60	.77	400	60	.69	290
12	80	.93	640	60	.79	430	60	.70	310
13	80	.95	685	60	.80	465	60	.72	335
14	80	.97	725	60	.83	500	60	.74	360
15	80	1.03	775	80	.92	535	60	.78	380
16	80	1.03	820	80	.92	570	60	.78	400
17	80	1.08	865	80	.96	605	60	.82	420
18	80	1.08	905	80	.96	640	60	.82	440
19	80	1.08	965	80	.96	675	60	.82	460
20	80	1.14	1010	80	1.01	710	80	.90	525
23	80	1.19	1145	80	1.06	815	80	.95	595
25	80	1.26	1235	80	1.12	890	80	1.00	640
27	80	1.29	1325	80	1.15	960	80	1.02	680
29	80	1.31	1415	80	1.16	1030	80	1.03	720
31	80	1.36	1505	80	1.21	1100	80	1.07	760
32	80	1.39	1550	80	1.23	1135	80	1.10	780
37	80	1.44	1775	80	1.28	1310	80	1.14	890

- NOTES:**
1. All cables available with bare or covered grounding conductor.
 2. Standard color coding is Method 1 for NEC Applications, per Appendix E, Table E-2 of ICEA S-73-532 (TECH 1006). This color coding method omits white and green from the color sequence. A white or green conductor can be supplied on request.
 3. Cables with Open Wiring listing available on request.

Information on this sheet subject to change without notice.

Specification

ROME TRAY CABLE, TYPE TC

Rome FR-EPR XHHW-2 Conductors, CPE Jacket, 600 Volts

1. SCOPE

- 1.1 This specification describes multi-conductor Rome Type TC Tray Cable insulated with Rome FR-EPR flame-retardant ethylene-propylene-rubber 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 and may also be used in Class 1 remote-control and signaling circuits per Article 725 of the Code. Cables may be installed in air, in ducts or conduits, in tray or trough, and are also suitable for direct burial.

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-73-532, NEMA Pub. No. WC57, Control Cables.

3. CONDUCTORS

- 3.1 Conductors shall be Class B stranded tinned soft copper conforming to Part 2 of ICEA. Conductor sizes shall be 14 AWG through 10 AWG.

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 conductor shall be insulated with Rome FR-EPR flame-retardant ethylene-propylene-rubber, meeting the requirements of ICEA S-73-532, Table 3-2 (Type II-EP Rubber) and Underwriters Laboratories requirements for Type XHHW-2, VW-1.
- 5.2 **Thickness:** The average thickness of insulation shall be 30 mils. The minimum thickness at any point shall be not less than 90% of the specified average thickness.

6. CIRCUIT IDENTIFICATION

- 6.1 Circuit identification shall consist of Method 1 color coding for National Electrical Code applications in accordance with ICEA S-73-532, Appendix E, Table E-2. Cables shall not contain a green or white conductor unless specifically ordered (TECH I006 Option A).

7. ASSEMBLY

- 7.1 For three conductors or more, the insulated color coded conductors shall be cabled together with nonhygroscopic fillers, when necessary to make round. The cable assembly shall be covered with a suitable tape applied with a 10% minimum lap. Two conductor cable shall be flat without separator tape, unless otherwise specified.

8. OVERALL JACKET

- 8.1 **Compound:** Each cable shall have a Chlorinated Polyethylene (CPE) protective jacket applied over the assembly. The jacket shall meet the requirements of ICEA S-73-532, Table 4-2 (CPE-TP) and the Sunlight Resistant and Oil Resistant II requirements of UL Standard 1277.
- 8.2 **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.

9. SURFACE MARKING

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

10. TESTS

- 10.1 Individual conductors and completed cables shall be tested in accordance with UL requirements for Type TC Power and Control Tray Cables having XHHW-2, VW-1 insulated conductors, and ICEA S-73-532.
- 10.2 Cables shall be capable of passing the ribbon burner cable tray flame test requirements of UL and IEEE 1202/CSA FT4.

ROME TRAY CABLE, TYPE TC

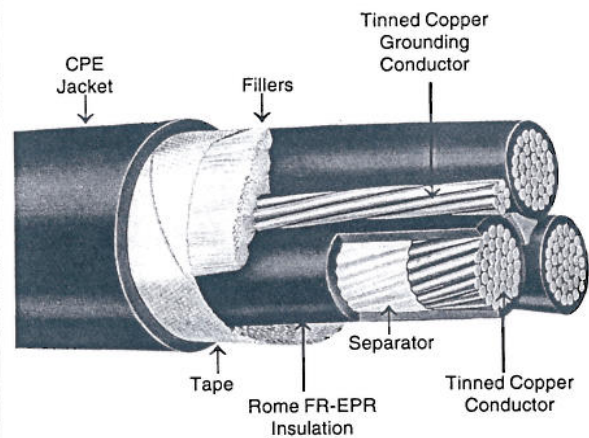
Rome FR-EPR XHHW-2 Conductors, CPE Jacket, 600 Volts Three Conductor with Grounding Conductor

APPLICATION: As flame-retarant 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 and are suitable for direct burial.

STANDARDS:

1. Listed by UL as Type TC 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 UL listed for Direct Burial.
6. Cables pass IEEE 383 (70,000 BTU/hr) and ICEA T-29-520 (210,000 BTU/hr) cable tray flame tests.
7. Cables pass IEEE 1202/CSA FT4 (70,000 BTU/hr) cable tray flame test.
8. Cables meet requirements of ICEA S-95-658, NEMA WC70.

CONSTRUCTION: Class B stranded tinned copper conductor, Rome FR-EPR flame-retardant ethylene-propylene-rubber insulation, surface print phase identification. Three insulated conductors twisted with a Class B stranded tinned 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	330	55	50
6	7	45	60	.74	8	460	75	65
4	7	45	80	.88	8	685	95	85
2	7	45	80	1.00	6	1015	130	115
1	19	55	80	1.13	6	1270	150	130
1/0	19	55	80	1.22	6	1500	170	150
2/0	19	55	80	1.31	6	1810	195	175
3/0	19	55	80	1.42	4	2250	225	200
4/0	19	55	80	1.55	4	2685	260	230
250	37	65	110	1.76	4	3170	290	255
350	37	65	110	1.98	3	4320	350	310
500	37	65	110	2.26	2	6020	430	380
750	61	80	110	2.71	1	8980	535	475
1000	61	80	140	3.10	1/0	11700	615	545

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

- NOTES: 1. Grounding conductor per UL Standard 1277 for Type TC Tray Cable.
2. Cables with Open Wiring listing available on request.

Specification

ROME TRAY CABLE, TYPE TC

Rome FR-EPR XHHW-2 Conductors, 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-EPR flame-retardant ethylene-propylene-rubber 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. Cables may be installed in air, in ducts or conduits, in tray or trough, and are also suitable for direct burial.

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 tinned 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-EPR flame-retardant ethylene-propylene-rubber, meeting the requirements of ICEA S-95-658, Table 3-7, Class E-2 and Underwriters Laboratories requirements for Type XHHW-2, VW-1.
- 5.2 **Thickness:** The average thickness of insulation shall be as specified 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, tinned 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 (CPE-TP) 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, VW-1 insulated 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 1202/CSA FT 4.

ROME INTERLOCKED ARMOR CONTROL CABLE, TYPE MC

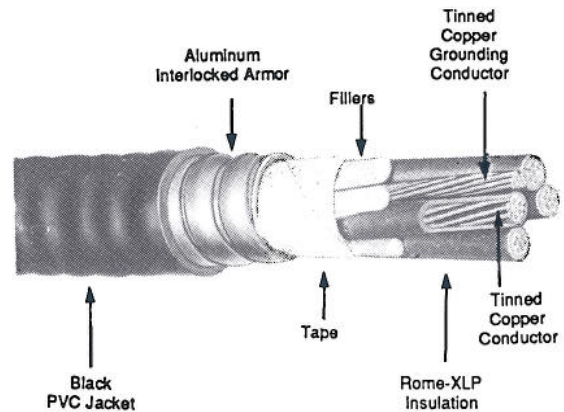
Rome-XLP XHHW-2 Conductors, Aluminum Armor, PVC Jacket, 600 Volts

APPLICATION: As multi-conductor Type MC cable, 90°C in wet or dry locations; for installation indoors or outdoors, aerially or in metal rack, trough, cable trays, or direct buried; for control, lighting, power and signal circuits not exceeding 600 volts in manufacturing and processing plants and substations. May be used in NEC Class I and II, Division 2 and Class III, Division 1 and 2 hazardous locations.

STANDARDS:

1. Listed by UL as Type MC cable per Article 334 of the NEC.
2. Individual conductors UL listed as Type XHHW-2.
3. Overall jacket UL listed as Sunlight Resistant.
4. Cables pass UL and IEEE-383 ribbon burner flame tests and are UL listed For CT Use.
5. Cables pass ICEA 210,000 BTU/Hr. ribbon burner flame test.
6. Cables UL listed for Direct Burial.
7. Cables conform to ICEA Pub. No. S-66-524, NEMA Pub. No. WC7 for Crosslinked-polyethylene-insulated Wire and Cable.
8. Cables conform to ICEA Pub. No. S-73-532, NEMA Pub. No. WC57, Control Cables.

CONSTRUCTION: Stranded tinned copper conductors, 30 mils Rome-XLP crosslinked polyethylene insulation, color coded, twisted with one 7-strand tinned copper uninsulated grounding conductor of same size as circuit conductors, cable tape, aluminum interlocked armor, black PVC jacket overall.



No. of Condrs.	#10 AWG - 7 Strand				#12 AWG - 7 Strand				#14 AWG - 7 Strand			
	Nom. Diam. Over Armor Inches	Overall PVC Jacket Mils	Nom. Diam. Inches	Approx. Net Wt. Lb./ 1000 Ft.	Nom. Diam. Over Armor Inches	Overall PVC Jacket Mils	Nom. Diam. Inches	Approx. Net Wt. Lb./ 1000 Ft.	Nom. Diam. Over Armor Inches	Overall PVC Jacket Mils	Nom. Diam. Inches	Approx. Net Wt. Lb./ 1000 Ft.
2	.57	50	.67	260	.52	50	.61	205	.46	50	.56	160
3	.58	50	.68	305	.53	50	.63	234	.49	50	.59	187
4	.63	50	.73	355	.57	50	.67	270	.53	50	.64	220
5	.69	50	.80	410	.61	50	.72	310	.57	50	.66	245
6	.75	50	.85	465	.66	50	.76	350	.60	50	.70	280
7	.75	50	.85	500	.66	50	.76	378	.60	50	.70	292
8	.80	50	.91	560	.72	50	.83	420	.66	50	.76	330
9	.86	50	.96	620	.77	50	.87	460	.68	50	.78	360
10	.94	50	1.04	680	.83	50	.93	505	.75	50	.85	395
11	.94	50	1.04	720	.83	50	.93	530	.75	50	.85	415
12	.96	50	1.07	770	.84	50	.95	577	.76	50	.86	440
13	.98	50	1.08	815	.88	50	.98	600	.78	50	.89	465
14	1.01	50	1.12	865	.91	50	1.01	630	.81	50	.91	490
15	1.06	50	1.17	920	.95	50	1.05	670	.84	50	.95	515
16	1.06	50	1.17	960	.95	50	1.05	705	.84	50	.95	530
17	1.12	50	1.22	1015	1.00	50	1.10	740	.87	50	.98	550
18	1.12	50	1.22	1055	1.00	50	1.10	765	.87	50	.98	568
19	1.12	50	1.22	1095	1.00	50	1.10	790	.87	50	.98	586
20	1.17	50	1.28	1155	1.04	50	1.15	860	.94	50	1.04	615
23	1.22	50	1.33	1290	1.09	50	1.20	960	.98	50	1.08	690
25	1.30	50	1.40	1390	1.15	50	1.26	1035	1.03	50	1.14	750
27	1.32	50	1.43	1480	1.18	50	1.28	1095	1.05	50	1.16	810
29	1.34	50	1.44	1570	1.19	50	1.29	1155	1.06	50	1.17	860
31	1.39	50	1.50	1660	1.24	50	1.34	1205	1.11	50	1.21	920
32	1.42	50	1.53	1715	1.26	50	1.37	1255	1.13	50	1.23	940
37	1.48	50	1.58	1935	1.31	50	1.41	1395	1.17	50	1.27	1110

- NOTES:**
1. Standard color is Method 1 for NEC applications per Appendix E, Table E-2 of ICEA S-73-532 (TECH 1006 Option A).
 2. Cables may be supplied with galvanized steel interlocked armor on request.

Information on this sheet subject to change without notice.

Specification

ROME INTERLOCKED ARMOR CONTROL CABLE, TYPE MC

Rome-XLP XHHW-2 Conductors, Aluminum Armor, PVC Jacket, 600 Volts

1. SCOPE

- 1.1 This specification describes multi-conductor Rome-XLP XHHW-2 crosslinked polyethylene insulated, aluminum interlocked armor Type MC control cable for use in circuits not exceeding 600 volts at conductor temperatures of 90°C in wet or dry locations. Cables are intended for general purpose applications in aerial, direct burial, metal rack, trough, or cable tray installations.

2. APPLICABLE STANDARDS

- 2.1 The following standards shall form a part of this specification to the extent specified herein:
- 2.1.1 UL Standard 1569 for Type MC cable.
 - 2.1.2 UL Standard 44 for Type XHHW-2 conductors.
 - 2.1.3 ICEA Pub. No. S-66-524, NEMA Pub. No. WC7 for Crosslinked-polyethylene-insulated Wire and Cable.
 - 2.1.4 ICEA Pub. No. S-73-532, NEMA Pub. No. WC57 for Control Cables.

3. CONDUCTORS

- 3.1 Conductors shall be Class B stranded tinned soft copper per Part 2 of ICEA. Conductor sizes shall be 14 AWG through 10 AWG.

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 conductor shall be insulated with Rome-XLP chemically crosslinked polyethylene, meeting the requirements of ICEA S-66-524, Par. 3.6, ICEA S-73-532, Table 3-2 (Type I-XLPE), and Type XHHW-2 requirements of Underwriters Laboratories.
- 5.2 **Thickness:** The average thickness of insulation shall be 30 mils. The minimum thickness at any point shall be not less than 90% of the specified thickness.

6. CIRCUIT IDENTIFICATION

- 6.1 Circuit identification shall consist of Method 1 color coding for National Electrical Code applications in accordance with ICEA Pub. No. S-73-532, Appendix E, Table E-2 (TECH IOO6 Option A).

7. ASSEMBLY

- 7.1 The insulated color coded conductors shall be cabled together with nonhygroscopic fillers, when necessary to make round. One 7-strand tinned copper uninsulated grounding conductor of the same size as the circuit conductors, shall be included in the assembly.

8. CABLE TAPE

- 8.1 A suitable cable tape shall be applied over the assembly to hold the core together and provide bedding for the armor.

9. ARMOR

- 9.1 An aluminum interlocked armor shall be applied over the cable core. Armor shall be in accordance with UL Standard 1569 and Part 4 of ICEA.

10. COVERING

- 10.1 An extruded covering of PVC shall be applied over the armor. The average thickness and properties of the PVC covering shall be as specified in Part 4 of ICEA. Minimum thickness at any point shall be not less than 70% of the required average thickness. The covering shall meet the Sunlight Resistant requirements of UL.

11. IDENTIFICATION

- 11.1 An ink print legend shall be applied to the surface of the PVC covering providing cable and manufacturer identification.

12. TESTS

- 12.1 Individual conductors and completed cables shall be tested in accordance with UL requirements for Type MC cables having XHHW-2 insulated conductors.
- 12.2 Cables shall be capable of passing the ribbon burner cable tray flame test requirements of UL and shall be UL listed "For CT Use".

ROME INTERLOCKED ARMOR CONTROL CABLE, TYPE MC

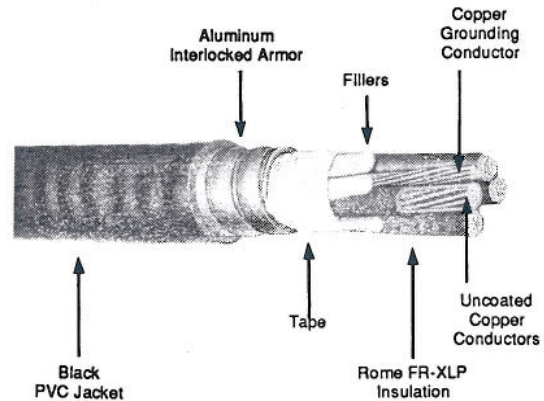
Rome FR-XLP VW-1 XHHW-2 Conductors, Aluminum Armor

APPLICATION: As multi-conductor Type MC cable, 90°C in wet or dry locations; for installation indoors or outdoors, aerially or in metal rack, trough, cable trays, or direct buried; for control, lighting, power and signal circuits not exceeding 600 volts in manufacturing and processing plants and substations. May be used in NEC Class I and II, Division 2 and Class III, Division 1 and 2 hazardous locations.

STANDARDS:

1. Listed by UL as Type MC cable per Article 334 of the NEC.
2. Individual conductors UL listed as Type XHHW-2, VW-1.
3. Overall jacket UL listed as Sunlight Resistant.
4. Cables pass UL and IEEE-383 ribbon burner flame tests and are UL listed for CT Use.
5. Cables pass ICEA 210,000 BTU/Hr. ribbon burner flame test.
6. Aluminum armored cables UL listed for Direct Burial.
7. Cables conform to ICEA Pub. No. S-66-524, NEMA Pub. No. WC7 for Crosslinked-polyethylene-insulated Wire and Cable.
8. Cable conform to ICEA Pub. No. S-73-532, NEMA Pub. No. WC57, Control Cables.

CONSTRUCTION: Stranded uncoated copper conductors, 30 mils Rome FR-XLP flame-retardant crosslinked polyethylene insulation, color coded, twisted with one 7-strand uncoated copper uninsulated grounding conductor of same size as circuit conductors, cable tape, aluminum interlocked armor, black PVC jacket overall.



No. of Condrs.	#10 AWG - 7 Strand				#12 AWG - 7 Strand				#14 AWG - 7 Strand			
	Nom. Diam. Over Armor Inches	Overall PVC Jacket Mils	Nom. Diam. Inches	Approx. Net Wt. Lb./ 1000 Ft.	Nom. Diam. Over Armor Inches	Overall PVC Jacket Mils	Nom. Diam. Inches	Approx. Net Wt. Lb./ 1000 Ft.	Nom. Diam. Over Armor Inches	Overall PVC Jacket Mils	Nom. Diam. Inches	Approx. Net Wt. Lb./ 1000 Ft.
2	.57	50	.67	260	.52	50	.61	205	.46	50	.56	160
3	.58	50	.68	300	.53	50	.63	230	.48	50	.58	185
4	.64	50	.75	355	.56	50	.67	275	.53	50	.64	220
5	.69	50	.80	410	.63	50	.73	315	.55	50	.66	245
6	.75	50	.85	465	.67	50	.78	350	.59	50	.70	280
7	.75	50	.85	500	.67	50	.78	375	.59	50	.70	295
8	.80	50	.91	560	.72	50	.83	420	.66	50	.76	330
9	.86	50	.96	620	.77	50	.87	460	.68	50	.78	360
10	.94	50	1.04	680	.83	50	.93	505	.75	50	.85	395
11	.94	50	1.04	720	.83	50	.93	530	.75	50	.85	415
12	.96	50	1.07	770	.85	50	.96	570	.76	50	.87	430
13	.98	50	1.08	815	.88	50	.98	600	.78	50	.89	465
14	1.01	50	1.12	865	.91	50	1.01	630	.81	50	.91	490
15	1.06	50	1.17	920	.95	50	1.05	670	.84	50	.95	515
16	1.06	50	1.17	960	.95	50	1.05	705	.84	50	.95	530
17	1.12	50	1.22	1015	1.00	50	1.10	740	.90	50	1.00	550
18	1.12	50	1.22	1055	1.00	50	1.10	765	.90	50	1.00	570
19	1.12	50	1.22	1095	1.00	50	1.10	790	.90	50	1.00	590
20	1.17	50	1.28	1155	1.04	50	1.15	860	.94	50	1.04	615
23	1.22	50	1.33	1290	1.09	50	1.20	960	.98	50	1.08	690
25	1.30	50	1.40	1390	1.15	50	1.26	1035	1.03	50	1.14	750
27	1.32	50	1.43	1480	1.18	50	1.28	1095	1.05	50	1.16	810
29	1.34	50	1.44	1570	1.19	50	1.29	1155	1.06	50	1.17	860
31	1.39	50	1.50	1660	1.24	50	1.34	1205	1.11	50	1.21	920
32	1.42	50	1.53	1715	1.26	50	1.37	1255	1.13	50	1.23	940
37	1.48	50	1.58	1935	1.31	50	1.41	1395	1.17	50	1.27	1110

- NOTES: 1. Standard color is Method 1 for NEC applications per Appendix E, Table E-2 of ICEA S-73-532 (TECH IO06 Option A).
 2. Cables may be supplied with galvanized steel interlocked armor on request.

Information on this sheet subject to change without notice.

Specification

ROME INTERLOCKED ARMOR CONTROL CABLE, TYPE MC

Rome FR-XLP VW-1 XHHW-2 Conductors, Aluminum Armor

1. SCOPE

- 1.1 This specification describes multi-conductor Rome FR-XLP flame-retardant crosslinked polyethylene insulated, aluminum interlocked armor Type MC control cable for use in circuits not exceeding 600 volts at conductor temperatures of 90°C in wet or dry locations. Cables are intended for general purpose applications in aerial, direct burial, metal rack, trough, or cable tray installations.

2. APPLICABLE STANDARDS

- 2.1 The following standards shall form a part of this specification to the extent specified herein:
- 2.1.1 UL Standard 1569 for Type MC cable.
 - 2.1.2 UL Standard 44 for Type XHHW-2, VW-1 conductors.
 - 2.1.3 ICEA Pub. No. S-66-524, NEMA Pub. No. WC7 for Crosslinked-polyethylene-insulated Wire and Cable.
 - 2.1.4 ICEA Pub. No. S-73-532, NEMA Pub. No. WC57 for Control Cables.

3. CONDUCTORS

- 3.1 Conductors shall be Class B stranded uncoated soft copper per Part 2 of ICEA. Conductor sizes shall be 14 AWG through 10 AWG.

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 conductor shall be insulated with Rome FR-XLP flame-retardant chemically crosslinked polyethylene, meeting the requirements of ICEA S-66-524, Par. 3.6, ICEA S-73-532, Table 3-2 (Type I-XLPE), and Type XHHW-2, VW-1 requirements of Underwriters Laboratories.
- 5.2 **Thickness:** The average thickness of insulation shall be 30 mils. The minimum thickness at any point shall be not less than 90% of the specified thickness.

6. CIRCUIT IDENTIFICATION

- 6.1 Circuit identification shall consist of Method 1 color coding for National Electrical Code applications in accordance with ICEA Pub. No. S-73-532, Appendix E, Table E-2 (TECH IOO6 Option A).

7. ASSEMBLY

- 7.1 The insulated color coded conductors shall be cabled together with nonhygroscopic fillers, when necessary to make round. One 7-strand uncoated copper uninsulated grounding conductor of the same size as the circuit conductors, shall be included in the assembly.

8. CABLE TAPE

- 8.1 A suitable cable tape shall be applied over the assembly to hold the core together and provide bedding for the armor.

9. ARMOR

- 9.1 An aluminum interlocked armor shall be applied over the cable core. Armor shall be in accordance with UL Standard 1569 and Part 4 of ICEA.

10. COVERING

- 10.1 An extruded covering of PVC shall be applied over the armor. The average thickness and properties of the PVC covering shall be as specified in Part 4 of ICEA. Minimum thickness at any point shall be not less than 70% of the required average thickness. The covering shall meet the Sunlight Resistant requirements of UL.

11. IDENTIFICATION

- 11.1 An ink print legend shall be applied to the surface of the PVC covering providing cable and manufacturer identification.

12. TESTS

- 12.1 Individual conductors and completed cables shall be tested in accordance with UL requirements for Type MC cables having XHHW-2 VW-1 insulated conductors.
- 12.2 Cables shall be capable of passing the ribbon burner cable tray flame test requirements of UL and shall be UL listed "For CT Use".