

ROME TYPE CT-B CONTROL CABLE, 600 VOLTS

Polyethylene - PVC Singles, PVC Jacket General Purpose Control Cable

<p>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. For Non NEC Application Cables may be installed in open air, in ducts or conduit, or in tray or trough and direct burial.</p> <p>STANDARDS: Physical and electrical tests in accordance with appropriate sections of ICEA S-73-532, NEMA WC57.</p> <p>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.</p>									
	#10 AWG - 7 Strand			#12 AWG - 7 Strand			#14 AWG - 7 Strand		
Number of Conductors	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.
 4. Cables available with either a Cu tape shield or LC shield upon request.

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.