

ROME HL TECK 90 MINUS 40C, FT4, 1000 VOLTS

3 Conductor, Rome-XLP Insulation (RW90)

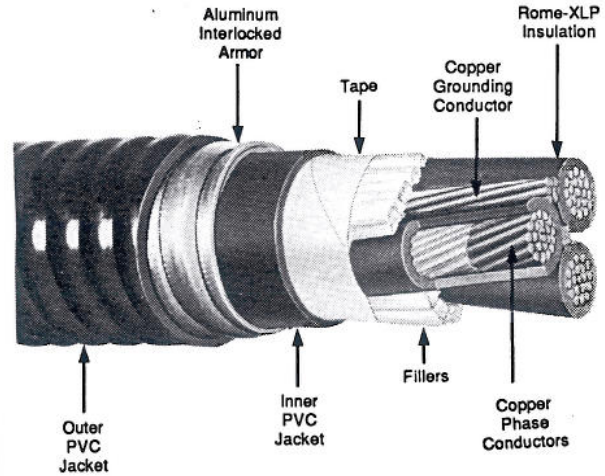
Inner PVC Jacket, Aluminum Armor, Outer PVC Jacket

APPLICATION: As flame retardant three conductor power cable rated 1000 volts, 90C in wet or dry locations. Widely used in the pulp and paper, petroleum, petrochemical, mining industries where cables with outstanding resistance to mechanical abuse, chemical attack and high reliability are required. Suitable for use in direct burial, open wiring, ventilated flexible cableways, and in non-ventilated, ventilated or ladder type cable trays. Inner and outer PVC jacket have low acid gas evolution and low flame spread properties along with excellent low temperature properties.

STANDARDS:

1. Listed as TECK90 MINUS 40C per CSA Std. C22.2 No. 131.
2. Passes FT-4 70000 BTU/Hr cable tray flame test of CSA Std. C22.2 No. 0.3.
3. Complies with Acid Gas Evolution Test of Ontario Hydro Provisional Spec L-891 SM-77. Less than 14% acid gas evolution.
4. HL approved for use in hazardous locations per CSA Std. C22.2 No. 174.

CONSTRUCTION: Three conductors of Class B stranded uncoated copper, Rome-XLP crosslinked polyethylene insulation, color or number coded. Three conductors twisted together with one uncoated copper grounding conductor and suitable fillers, tape, PVC inner jacket, aluminum interlocked armor, PVC outer jacket, surface printed.



Size AWG or kcmil		Thickness		Diameters						Weight		AMP*	Connectors	
Phase	Ground	Insul.	Inner Jkt.	Inner Jkt.		Armor		Outer Jkt.		lb/k ft.	kg/km		T & B	Crouse-Hinds
		Mils	Mils	In.	mm	In.	mm	In.	mm					
14	14	45	45	.474	12.0	.639	16.2	.744	18.9	250	372	15	10464	0100219
12	14	45	45	.514	13.1	.679	17.2	.784	19.9	320	476	20	10465	0100220
10	12	45	60	.595	15.1	.761	19.3	.866	22.0	395	588	30	10465	0100220
8	10	45	60	.654	16.6	.819	20.8	.924	23.5	530	789	45	10467	0100222
6	8	60	60	.798	20.3	1.02	25.9	1.12	28.4	760	1131	65	10468	0100223
4	8	60	80	.920	23.4	1.14	29.0	1.25	31.8	995	1481	85	10469	0100224
3	6	60	80	.975	24.8	1.20	30.5	1.30	33.0	1160	1726	105	10469	0100224
2	6	60	80	1.04	26.4	1.26	32.0	1.37	34.8	1335	1987	120	10470	0100225
1	6	80	80	1.20	30.5	1.42	36.1	1.52	38.6	1635	2433	140	10550	0100225
1/0	6	80	80	1.28	32.5	1.50	38.1	1.60	40.6	1885	2805	155	10550	0100225
2/0	6	80	80	1.36	34.5	1.58	40.1	1.69	42.9	2235	3326	185	10471	0100226
3/0	4	80	80	1.46	37.1	1.68	42.7	1.79	45.5	2675	3981	210	10472	0100227
4/0	4	80	80	1.58	40.1	1.82	46.2	1.93	49.0	3240	4822	235	10473	0100227
250	4	90	110	1.80	45.7	2.03	51.6	2.14	54.4	3700	5506	265	10551	0100568
300	4	90	110	1.91	48.5	2.14	54.4	2.25	57.2	4300	6399	295	10474	0100229
350	3	90	110	2.00	50.8	2.24	56.9	2.35	59.7	5060	7530	325	10552	0100229
400	3	90	110	2.10	53.3	2.33	59.2	2.44	62.0	5635	8386	345	10553	0100565
500	3	90	110	2.26	57.4	2.49	63.2	2.60	66.0	6705	9978	395	10553	0100565
750	2	90	110	2.65	67.3	2.89	73.4	3.00	76.2	9540	14197	500	10554	0100567
1000	1	90	140	3.10	78.7	3.34	84.8	3.45	87.6	12690	18885	585	10481	0100236

*AMPACITY in accordance with Rule 12-2212 of Canadian Electrical Code, Part 1, for installation in air or ventilated tray, with maintained spacing, 90°C conductor temperature, 30°C ambient.

- NOTES:
1. Cable weight based upon aluminum armor. Galvanized steel armor available on request.
 2. Standard phase identification is black, red, blue for 14-2AWG, black with printed numbers on larger sizes.
 3. Phase conductor sizes 14-10AWG have concentric strand. Sizes 8-6 have compressed strand. Sizes 4 and larger have compact strand.

Information on this sheet subject to change without notice.

Specification

ROME HL TECK 90 MINUS 40C, FT4, 1000 VOLTS

3 Conductor, Rome-XLP Insulation (RW90)

Inner PVC Jacket, Aluminum Armor, Outer PVC Jacket

1. SCOPE

- 1.1 This specification describes three conductor Rome TECK 90 MINUS 40C cable with Rome-XLP crosslinked polyethylene insulation, PVC inner jacket, aluminum interlocked armor, and PVC outer jacket. The cables may be used in circuits not exceeding 1000 volts at temperatures of 90°C in wet or dry locations. Cables are intended for use indoors or outdoors, in open wiring, ventilated flexible cableways, cable trays and direct burial installations in commercial or industrial applications.

2. STANDARDS

- 2.1 The following standards shall form a part of this specification to the extent specified herein:
 - 2.1.1 CSA Std C22.2 No. 131 TECK 90 MINUS 40C cable.
 - 2.1.2 CSA Std C22.2 No. 0.3 Clause 4.11.4 FT-4 flame test.
 - 2.1.3 Ontario Hydro Provisional Spec L891SM-77.
 - 2.1.4 CSA Std C22.2 No. 174 Cables and Cable Glands for Use In Hazardous Locations.
 - 2.1.5 CSA Std C22.2 No. 38 Thermoset Insulated Wires and Cables.

3. CONDUCTORS

- 3.1 Conductors shall be Class B stranded annealed uncoated copper conforming to CSA C22.2 No. 131. Sizes 14-10AWG shall be concentric strand, sizes 8-6AWG shall be compressed strand and sizes 4AWG-1000 kcmil shall be compact strand. A nonhygroscopic separator may be used over the conductor at the option of the manufacturer.

4. INSULATION

- 4.1 Shall be Rome-XLP crosslinked polyethylene meeting the requirements of CSA C22.2 No. 38 for RW90. Average thickness shall be in accordance with CSA C22.2 No. 131 for 1000 volt rated cable. Minimum thickness at any point shall be not less than 90% of the specified average thickness.

5. PHASE IDENTIFICATION

- 5.1 Conductor sizes 14-2AWG shall be colored black, red, blue. Larger sizes shall have printed numbers on black insulation.

6. ASSEMBLY

- 6.1 Insulated phase conductors shall be cabled together with a class B concentric or compressed 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 CSA C22.2 No. 131. A nonhygroscopic cable tape shall be applied over the assembly.

7. INNER PVC JACKET

- 7.1 Shall be PVC meeting the requirements of C22.2 No. 131 including requirements for low temperature classification of -40C. Thickness of jacket shall be as specified in C22.2 No. 131.

8. INTERLOCKED ARMOR

- 8.1 An aluminum alloy interlocked armor shall be applied over the inner PVC jacket meeting the requirements of C22.2 No. 131, Clause 4.11.

9. OUTER PVC JACKET

- 9.1 Cables shall have an overall black PVC jacket meeting the requirements of C22.2 No. 131 including requirements for low temperature classification of -40C. Thickness of jacket shall not be less than 40 mils.

10. IDENTIFICATION

- 10.1 Cable shall be surface ink printed with a legend identifying the manufacturer, number of conductors, size, voltage rating, TECK 90, MINUS 40C, XLPE, FT4, HL and length markings in meters.

11. TESTS

- 11.1 Completed cable shall be capable of compliance with the FT4 flame test of C22.2 No. 0.3, HL requirements of C22.2 No. 174 and the acid gas evolution test of OH L891SM-77, in addition to the requirements for Type TECK 90 MINUS 40C cable in C22.2 No. 131.