

ROME HL TECK 90 MINUS 40C, FT4, 5000 VOLTS

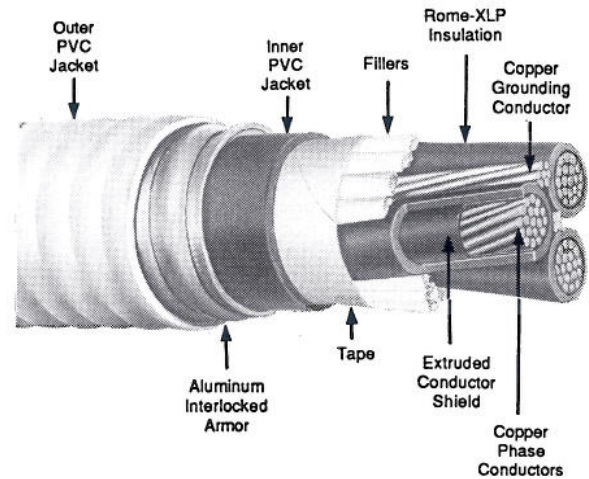
3 Conductor, Rome-XLP Insulation (RW90), Nonshielded
Inner PVC Jacket, Aluminum Armor, Outer PVC Jacket

APPLICATION: As flame retardant three conductor power cable rated 5000 volts, 100% and 133% insulation level, 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, extruded conductor shield, 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. Mils	Inner Jkt. Mils	Inner Jkt.		Armor		Outer Jkt.		lb/k ft.	kg/km		T & B	Crouse-Hinds
				In.	mm	In.	mm	In.	mm					
8	10	90	80	.991	25.2	1.19	30.2	1.30	33.0	850	1265	45	10469	0100224
6	8	90	80	1.05	26.7	1.25	31.8	1.36	34.5	976	1452	65	10470	0100225
4	8	90	80	1.14	29.0	1.34	34.0	1.45	36.8	1190	1771	85	10470	0100225
3	6	90	80	1.21	30.7	1.41	35.8	1.52	38.6	1405	2091	105	10550	0100225
2	6	90	80	1.28	32.5	1.48	37.6	1.58	40.1	1540	2292	120	10550	0100225
1	6	90	80	1.34	34.0	1.54	39.1	1.65	41.9	1845	2746	140	10471	0100226
1/0	6	90	80	1.41	35.8	1.61	40.9	1.73	43.9	2055	3058	155	10472	0100227
2/0	6	90	80	1.51	38.4	1.71	43.4	1.82	46.2	2475	3683	185	10472	0100227
3/0	4	90	80	1.62	41.1	1.85	47.0	1.96	49.8	2900	4316	210	10551	0100228
4/0	4	90	110	1.80	45.7	2.03	51.6	2.16	54.9	3580	5328	235	10551	0100568
250	4	90	110	1.91	48.5	2.14	54.4	2.25	57.2	4040	6012	265	10474	0100229
300	4	90	110	2.03	51.6	2.26	57.4	2.37	60.2	4555	6779	295	10552	0100230
350	3	90	110	2.11	53.6	2.34	59.4	2.50	63.5	5325	7925	325	10553	0100565
400	3	90	110	2.22	56.4	2.45	62.2	2.56	65.0	5850	8706	345	10553	0100565
500	3	90	110	2.39	60.7	2.62	66.5	2.74	69.6	6970	10373	395	10553	0100232
600	2	90	110	2.58	65.5	2.81	71.4	2.92	74.2	8200	12203	455	10554	0100566
750	2	90	110	2.77	70.4	3.00	76.2	3.16	80.3	9845	14651	500	10555	0100567
1000	1	90	140	3.19	81.0	3.42	86.9	3.54	89.9	13270	19748	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 8-2AWG, black with printed numbers on larger sizes.
3. Sizes 8-6 have compressed strand. Sizes 4 and larger have compact strand.
4. Standard color of outer jacket is orange. Black jackets may also be supplied.

Information on this sheet subject to change without notice.

Specification

ROME HL TECK 90 MINUS 40C, FT4, 5000 VOLTS

3 Conductor, Rome-XLP Insulation (RW90), Nonshielded Inner PVC Jacket, Aluminum Armor, Outer PVC Jacket

1. SCOPE

- 1.1 This specification describes three conductor Rome TECK 90 MINUS 40C 5000 Volt Nonshielded 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 5000 volts 100% and 133% insulation level, 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 8-6AWG shall be compressed strand and sizes 4AWG-1000 kcmil shall be compact strand.

4. CONDUCTOR SHIELD

- 4.1 Shall be an extruded conducting crosslinked polyethylene compound with a thickness in accordance with C22.2 No. 131.

5. INSULATION

- 5.1 Shall be Rome-XLP crosslinked polyethylene meeting the requirements of CSA C22.2 No. 38 for RW90. Average thickness shall be 90 mils. Minimum thickness at any point shall be not less than 90% of the specified average thickness.

6. PHASE IDENTIFICATION

- 6.1 Conductor sizes 8-2AWG shall be colored black, red, blue. Larger sizes shall have printed numbers on black insulation.

7. ASSEMBLY

- 7.1 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.

8. INNER PVC JACKET

- 8.1 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.

9. INTERLOCKED ARMOR

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

10. OUTER PVC JACKET

- 10.1 Cables shall have an overall orange 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.

11. IDENTIFICATION

- 11.1 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.

12. TESTS

- 12.1 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.