

DIESEL LOCOMOTIVE CABLE, 2000 VOLTS

EPR Insulation, Hypalon® Jacket

APPLICATION:

For use in locomotive and car equipment or as traction motor leads where extra-flexible single conductor power or control cables are required.

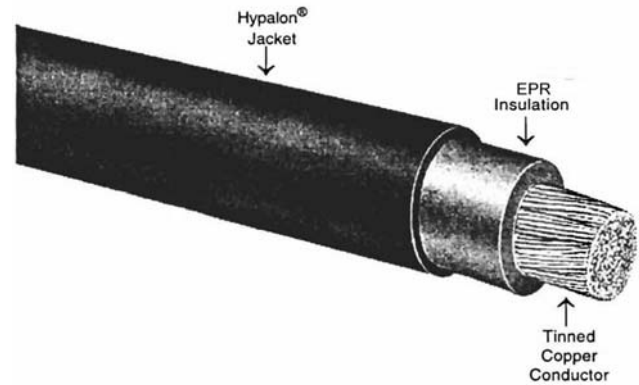
For circuits rated 2000 volts ac or dc, maximum conductor temperature 90°C wet or dry. Cables are suitable for installations covered by the NEC and may be installed in raceway, duct, cable tray and aerial installations.

STANDARDS:

1. Cables meet and exceed requirements of AAR Spec No. 591.
2. Listed by UL as Type RHW-2 or RHH, 2kV per UL Standard 44.
3. All sizes carry UL's VW-1 Flame test designation.
4. Cables are UL listed as Sunlight Resistant (1/0 AWG and larger).
5. Sizes 1/0 AWG and larger pass UL and IEEE-383 ribbon burner flame test and are UL listed for CT Use.
6. Cables conform to ICEA Pub. No. S-95-958/NEMA WC70.

CONSTRUCTION:

Extra-flexible stranded annealed tinned copper conductor, separator tape, ethylene-propylene rubber insulation, Hypalon® jacket, surface printed.



USAWC Part #	Conductor Stranding	Approx. Size AWG / MCM	Circ. Mil Area	Conductor Diam. Inches	Insulation Thickness Mils	Jacket Thickness Mils	Nominal Diam. Inches	Net Wt. lbs/1000 ft	Copper Wt. lbs/1000 ft
14-01DLO	19/#27	14	3831	.070	47	20	.21	30	12
12-01DLO	19/#25	12	6088	.090	47	20	.23	40	19
10-01DLO	27/#24	10	10910	.123	47	20	.26	55	28
8-01DLO	37/#24	8	14950	.140	55	31	.33	85	47
6-01DLO	63/#24	6	25450	.207	62	31	.40	125	81
5-01DLO	91 /#24	5	36760	.220	62	31	.43	175	100
4-01DLO	105/#24	4	42420	.240	62	31	.45	195	129
3-01DLO	125/#24	3	50500	.260	62	31	.47	225	165
2-01DLO	150/#24	2	60600	.325	62	31	.53	265	206
1-01DLO	225/#24	1	90900	.390	78	47	.68	415	256
1/0-01DLO	275/#24	1/0	111100	.420	78	47	.71	485	317
2/0-01DLO	325/#24	2/0	131300	.460	78	47	.75	570	400
3/0-01DLO	450/#24	3/0	181800	.555	78	47	.85	740	523
4/0-01DLO	550/#24	4/0	222200	.590	78	47	.89	900	666
262-01DLO	650/#24	262	262600	.660	94	47	.99	1200	820
313-01DLO	775/#24	313	313100	.715	94	47	1.02	1350	960
373-01DLO	925/#24	373	373700	.790	94	47	1.12	1550	1105
444-01DLO	1100/#24	444	444400	.870	94	47	1.20	1800	1370
535-01DLO	1325/#24	535	535300	.935	109	62	1.36	2100	1700
646-01DLO	1600/#24	646	646400	1.040	109	62	1.45	2420	1992
777-01DLO	1925/#24	777	777700	1.120	109	62	1.50	2890	2390
929-01DLO	2300/#24	929	929200	1.230	109	62	1.62	3390	2844
1111-01DLO	2750/#24	1111	1111000	1.370	125	62	1.79	4200	3400

Specification

DIESEL LOCOMOTIVE CABLE, 2000 VOLTS

EPR Insulation, Hypalon® Jacket

1. SCOPE

- 1.1 This specification describes single conductor EPR (ethylene-propylene-rubber) insulated, Hypalon® jacketed Diesel Locomotive and Car Wiring Cable for use in power and control circuits in diesel and electric locomotives, high-speed transit cars, and where extra-flexible single conductor power or control cables are required. Cables are rated 2000 volts. The cables are listed by UL as Type RHH or RHW-2 for general purpose wiring applications at maximum continuous conductor temperature of 90°C in dry locations (RHH) or 90°C in wet or dry locations (RHW-2) and may be installed in air, conduit or other recognized raceways per Article 310 of the NEC. All cables comply with UL's VW-1 Flame Test. Sizes 1/0 AWG and larger may be used in cable tray in accordance with Article 392 of the NEC.

2. STANDARDS

- 2.1 The following standards shall form a part of this specification to the extent specified herein:
 - 2.1.1 AAR Specification No. 591 for EPR Chlorosulfonated Polyethylene 600 Volt Cable.
 - 2.1.2 UL Standard 44 for Rubber Insulated Wires and Cables.
 - 2.1.3 ICEA Pub. No. S-95-658, NEMA Pub. No. WC70 for Nonshielded Power Cables Rated 2000 Volts or Less.
 - 2.1.4 ICEA Pub. No. S-75-381, NEMA Pub. No. WC58 for Portable and Power Feeder Cables For Use In Mines and Similar Applications.

3. CONDUCTORS

- 3.1 Conductors shall be extra-flexible concentric, bunch, or rope-stranded annealed tinned copper. Number, size of strands and type of stranding shall be as specified in Table II of A.A.R. Spec. No. 591 except for size 6 AWG which shall be Class I stranding per ICEA S-75-381.

4. SEPARATOR

- 4.1 A suitable separator shall be applied over each conductor to facilitate stripping of the insulation.

5. INSULATION

- 5.1 A homogeneous wall of EPR insulation shall be extruded over the conductor separator. The average thickness of insulation shall meet or exceed the thickness specified in A.A.R. Spec. No. 591 and the Column B 2000 volt walls in Table 3-4 of ICEA S-95-658 and the 2000 volt composite Type RHH or RHW-2 walls of UL Standard 44. The minimum thickness at any point shall not be less than 90% of the specified average thickness.
- 5.2 The EPR insulation shall comply with the physical and electrical requirements of the UL Standard 44 for Types RHW-2 or RHH and Table 3-7, Class E-2 of ICEA S-95-658.

6. JACKET

- 6.1 A Hypalon® jacket shall be applied directly over the insulation. The jacket shall meet the requirements of Part 4 of ICEA. The average thickness of the jacket shall be as specified in Table II of A.A.R. Spec. No. 591 and in UL Standard 44 for composite cables rated 2kV. Minimum thickness at any point shall be not less than 80% of the specified thickness.

7. IDENTIFICATION

- 7.1 All cable shall have surface printed identification showing manufacturer's name, conductor size, cable type, voltage rating, UL symbol, type designations and optional ratings.

8. TESTS

- 8.1 Cables shall be tested in accordance with the applicable requirements of UL Standard 44 for Types RHW-2 or RHH, ICEA Pub. No. S-95-658 and AAR Spec 591.

9. LABEL

- 9.1 Cables shall bear the Underwriters Laboratories label for Type RHH or RHW-2.