



MILITARY

Inventing *the Future* of Wire and Cable



EXRAD 150A MIL-Plus MIL 16878/16 Battery Cable

EXRAD 150A MIL-Plus is a high performance battery cable designed specifically for military vehicles. It meets both Mil 16878/16 and SAEJ1127 GXL requirements. As engine compartments grow smaller, operating temperatures get hotter and electronics proliferate under the hood, EXRAD 150A MIL-Plus battery cable fulfills these demands.

EXRAD 150A MIL-Plus battery cable has an irradiated cross-linked polyolefin insulation able to withstand temperatures of 240°C and higher. EXRAD 150A MIL-Plus can provide the solution to the complex demands of the current military environments. Thinner and lighter than other conventional battery cables, it is flexible enough for easy routing yet tough enough to withstand the roughest environments.

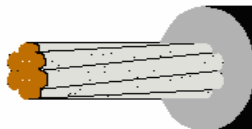
The end result is a military vehicle wire ideally suited to applications where a combination of flexibility, long life and performance is required.

Benefits and Features

Thin, uses up to 40% less space
Rated at 3000 Volts
Flexible, Fluid Resistant
High Abrasion Resistance
-55°C to 150°C Temperature Range
Superior Cut + Strip Processing
RoHS Compliant

Applications

Including but not limited to:
Batteries Military Equipment
Starters Military Vehicles
Power Distribution
Ground Wire



Champlain Cable Corporation

Part Number	Standard Conductors Tinned Copper	Nom. Dia of Conductor		Insulation Thickness		Nom. OD		Finished Weight (lbs/mft)	Ampacity
		in.	mm.	in.	mm.	in.	mm.		
150APLUSBMG	10 (37/27)	.111	2.82	.032	.81	.174	4.42	39.8	80
150APLUSBNM	8 (168/30)	.169	4.29	.037	.94	.242	6.14	65.4	106
150APLUSBPL	6 (133/27)	.210	5.33	.038	.97	.286	7.26	100.7	155
150APLUSBRL	4 (133/25)	.268	6.81	.041	1.04	.349	8.86	155.3	190
150APLUSBSP	2 (665/30)	.342	8.69	.039	.99	.419	10.64	243.1	255
150APLUSBTN	1 (259/25)	.378	9.60	.047	1.19	.471	11.18	301.2	293
150APLUSBUS	1/0 (1045/30)	.431	10.95	.045	1.14	.521	13.23	370.2	339
150APLUSBWT	2/0 (1330/30)	.475	12.07	.053	1.35	.580	14.73	472.1	390
150APLUSBYV	3/0 (1672/30)	.535	13.59	.064	1.63	.662	16.81	599.2	451
150APLUSBZW	4/0 (2109/30)	.600	15.24	.096	2.44	.795	20.19	791.6	529

*Ampacity 150°C rated single-insulated conductor in free air at 40°C ambient air temperature.

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EXRAD 150A

Property / Attribute

SAE J-1127 Req.

EXRAD 150A 6 AWG Typical Performance

Flex Life

Flex Test Per Modified ISO 14572

NA

NA

Dielectric Strength

Dielectric Test Wet Dielectric after 5 hour soak

1 kV 1 min.

5 kV 30 min.

Flame Resistance

Flame Test Maximum time after burn

70 Sec

1 sec

Thermal Performance

Cold Bend 4 hours at temperature no cracks / breakdown

-40°C

-55°C

Temperature Rating 240 Hours heat aging

155°C

180°C

Temperature Rating 3000 Hours

125°C

150°C

Mechanical Properties

Tensile Minimum psi

1500

2350

Elongation Minimum %

150

300

Abrasion Sand Paper Resistance Length in.

NA

18

Abrasion Scrape Cycles

NA

NA

Pinch Pounds

NA

NA

Ozone Resistance

Ozone Test 192 Hours @ 650C 100 pphm no cracks

Pass

Pass

Fluids

Engine Oil ASTM D471, IRM-902 50 +/-3 °C

15% Max.

1.80%

Gasoline ASTM D471 Ref. Fuel C 23 +/-5 °C

15% Max.

<1%

Brake Fluid SAE-J-1703 50 +/-5 °C

None

<1.5%

Ethanol 85% Ethanol + 15% ASTM D471, Ref. Fuel C 23 +/-5 °C

15% Max.

<1%

Diesel Fuel ASTM D471, 90% IRM-903 + 10% p-xylene 23 +/-5 °C

15% Max.

1.30%

Power Steering ASTM D471, IRM-903 50 +/-3 °C

30% Max.

1.50%

Auto Transmission Citgo #33123 SAE-J311 50 +/-3 °C

25% Max.

<1%

Methanol 25% Max.

<1%

<1%

Engine Coolant 50% Ethylene Glyco + 50% distilled Water 50 +/-3 °C

15% Max.

<1%

Battery Acid H2SO4 Specific Gravity = 1.260 +/- .005 23 +/-5 °C

5% Max.

<1.4%

We cannot anticipate all conditions under which this information and our products or the products of other manufacturers in combination with our products may be used. We accept no responsibility for results obtained by the application of this information or the safety and suitability of our products alone or in combination with other products. Users are advised to make their own tests to determine the safety and suitability of each such product combination for their own purpose. Unless otherwise agreed in writing, we sell the products without warranty, and buyers and users assume all responsibility and liability for loss and damage arising from the handling and use of our products whether used alone or in combination with other products.

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