



# AUTOMOTIVE

Inventing *the Future* of Wire and Cable

## EXRAD XLE 1000 Volt Cable -70 - 150°C

EXRAD XLE high performance battery cable designed specifically for the utmost flexibility and long life. EXRAD XLE 1000 volt cable is suited to meet the demands of Electric and Hybrid vehicles. As engine compartments grow smaller, wire routings become more complicated, and operating temperatures get hotter under the hood. EXRAD XLE battery cable fulfills these demands.

EXRD XLE 1000 volt cable is an irradiated cross-linked elastomer insulation, able to withstand temperatures of 240°C and higher. It has excellent resistance to oil and other fluids at temperatures exceeding 110°C. Thinner and lighter than other conventional cables, it is flexible enough for easy routing yet tough enough to withstand the roughest environments.

The end result is an automotive wire ideally suited to applications where a combination of flexibility, long life and performance is required. Save money and reduce weight by shortening the cable length. EXRAD XLE can be routed through twists and turns where other battery cables will not.

### Benefits and Features

- SAE J1654 600 volt rating
- 1000 Volts in accordance with UL758
- Rubber like Flexibility
- High Temperature Fluid Resistance
- 70°C to 150°C (ISO 6722)
- Superior Processing

### Applications

- Including but not limited to:
- Hybrid Vehicles
  - Batteries
  - Starters
  - Power Distribution
  - Ground Wire
  - Electric Vehicles
  - Inverters
  - Generators



Part Number	Standard Conductors Bare Copper	Nom. Dia of Conductor		Insulation Thickness		Nom. OD		Min Bend Radius		Weight (lbs/mft)	Ampacity
		in.	mm.	in.	mm.	in.	mm.	In.	mm		
EXRAD-XLE-10X	10 (105/30)	.112	2.84	.025	.64	.162	4.11	.49	12.33	35.0	80
EXRAD-XLE-8X	8 (133/29)	.166	4.22	.035	.89	.236	5.99	.71	17.97	66.0	106
EXRAD-XLE-6X	6 (133/27)	.195	4.95	.035	.89	.265	6.73	.80	20.19	97.0	155
EXRAD-XLE-4X	4 (133/25)	.242	6.15	.035	.89	.312	7.92	.94	23.76	152.0	190
EXRAD-XLE-2X	2 (665/30)	.318	8.08	.040	1.02	.398	10.10	1.20	30.30	241.0	255
EXRAD-XLE-1X	1 (779/30)	.346	8.79	.055	1.40	.456	11.58	1.37	34.74	272.0	293
EXRAD-XLE-1/0X	1/0 (1007/30)	.390	9.91	.055	1.40	.500	12.70	1.50	38.10	358.0	339
EXRAD-XLE-2/0X	2/0 (1254/30)	.438	11.13	.060	1.52	.558	14.17	1.68	42.51	464.0	390
EXRAD-XLE-3/0X	3/0 (1615/30)	.475	12.07	.060	1.52	.595	15.11	1.90	47.00	571.0	451
EXRAD-XLE-4/0X	4/0 (2107/30)	.602	15.29	.060	1.52	.722	18.33	2.17	54.99	751.0	529

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

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## EXRAD XLE

Property / Attribute		SAE J-1127 Req.	EXRAD XLE 2 AWG Typical Performance	
<b>Dielectric Strength</b>				
Dielectric Test	AC Dielectric Test SAE J1654 4.1	2500 Vac, 1 min	Pass	
Spark Test	10,000 Volts AC	NA	100% Pass	
<b>Flame Resistance</b>				
Flame Test	Maximum time after burn	70 Sec	0 sec	
<b>Thermal Performance</b>				
Cold Bend	4 hours at temperature no cracks / breakdown	ISO 6722	-40 <sup>o</sup> C	Pass
Temperature Rating	240 Hours heat aging ISO 6722 10.2		175 <sup>o</sup> C	Pass
Temperature Rating	3000 Hours		150 <sup>o</sup> C	Pass
<b>Mechanical Properties</b>				
Tensile	Minimum psi		1600	2530
Elongation	Minimum %		200	510
Abrasion	Sand Paper Resistance Length in. 4lb		NA	151
<b>Fluids</b>				
Engine Oil	ASTM D471, IRM-902	50 +/-3 <sup>o</sup> C	15% Max.	.15%
Gasoline	ASTM D471 Ref. Fuel C	23 +/-5 <sup>o</sup> C	15% Max.	11.1%
Ethanol	85% Ethanol + 15% ASTM D471, Ref. Fuel C	23 +/-5 <sup>o</sup> C	15% Max.	<1%
Diesel Fuel	ASTM D471, 90% IRM-903 + 10% p-xylene	50 +/-3 <sup>o</sup> C	15% Max.	0%
Power Steering	ASTM D471, IRM-903	50 +/-3 <sup>o</sup> C	30% Max.	1.70%
Auto Transmission	Dexron III	50 +/-3 <sup>o</sup> C	25% Max.	1%
Auto Transmission	Dexron VI	50 +/-3 <sup>o</sup> C	25% Max.	2.2%
Engine Coolant	50% Ethylene Glyco + 50% distilled Water	50 +/-3 <sup>o</sup> C	15% Max.	0%
Battery Acid	H2SO4 Specific Gravity = 1.260 +/- .005	23 +/-5 <sup>o</sup> C	5% Max.	1.5%
Hot Water	2.5 m in 85 <sup>o</sup> C Salt Sol. for 5 seven day cycles. IR >10 <sup>9</sup> Ω*mm, pass 1 Kv dielectric			Jacket >10 <sup>9</sup> Ω*mm, Passed Dielectric

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