



# AUTOMOTIVE

Inventing *the Future* of Wire and Cable

## EXRAD XLE 1000 VOLT Shielded Cable -70 - 150°C

EXRAD XLE 1000 Volt shielded cable designed specifically to handle the higher voltage and current required by today's hybrid and electric powered vehicles. XLE is an extremely flexible, yet tough insulation. These cables significantly reduce the effects of EMI and RFI. The jacket insulation isolates any stray currents making this cable very safe. Our thin wall and high temperature insulations allow for lower weight and less space.

EXRAD XLE 1000 volt shielded cable has an irradiated cross-linked elastomer insulation able to withstand temperatures of 240°C and higher. Thinner and lighter than other shielded battery cables, it is flexible enough for easy routing yet tough enough to withstand the roughest environments. XLE has excellent resistance to oil at temperatures exceeding 105°C.

The end result is an automotive wire ideally suited to applications where a combination of flexibility, long life and performance is required. EXTRAD XLE 1000 volt shielded cable can be routed through twists and turns where other cables fail

### Benefits and Features

RFI and EMI Protection  
SAE J1654 600 Volt Rating  
1000 Volt in accordance to UL 758  
Rubber Like Flexibility  
Fluid Resistant  
-70°C to 150°C (ISO 6722)

### Applications

Including but not limited to:  
Battery Packs                      Hybrid Vehicles  
Motors                                      Electric Vehicles  
Inverters  
Generators



Part Number	Standard Conductors Bare Copper	Nom. Dia Conductor		Nom. Dia. Primary insulation		Nom. Dia Shield		Nom. Dia. Outside		Shield Coverage	Finished Weight (lbs/mft)	Ampacity
		in.	mm.	in.	mm.	in.	mm.	in.	mm.			
EXRAD-XLX10X	10 (105/30)	.112	2.84	.162	4.11	.184	4.67	.234	5.94	95%	59.0	80
EXRAD-XLX8X	8 (133/29)	.166	4.22	.236	5.99	.254	6.45	.304	7.72	95%	92.0	106
EXRAD-XLX6X	6 (133/27)	.195	4.95	.265	6.73	.283	7.19	.333	8.46	95%	126.0	155
EXRAD-XLX4X	4 (133/25)	.242	6.15	.312	7.92	.330	8.37	.390	9.91	95%	187.0	190
EXRAD-XLX2X	2 (665/30)	.318	8.08	.388	9.86	.410	10.41	.490	12.45	95%	295.0	255
EXRAD-XLX1X	1 (779/30)	.346	8.79	.446	11.33	.469	11.91	.529	13.44	95%	335.0	293
EXRAD-XLX1/0X	1/0 (1007/30)	.390	9.91	.500	12.70	.528	13.41	.588	14.91	95%	412.0	339
EXRAD-XLX2/0X	2/0 (1254/30)	.438	11.13	.558	14.17	.586	14.83	.666	16.92	95%	534.0	390
EXRAD-XLX3/0X	3/0 (1615/30)	.475	12.07	.595	15.11	.623	15.82	.703	17.86	95%	620.0	451
EXRAD-XLX4/0X	4/0 (2107/30)	.602	15.29	.722	183.3	.750	19.05	.830	21.08	95%	876.0	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	
Sparktest	12,000 Volts AC	NA	100%	
<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	Sandpaper resistance 4 pound weight inches		10	147
<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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