



AUTOMOTIVE

Inventing *the Future* of Wire and Cable

EXRAD XLE Metric Thinwall Battery Cable -70 - 150°C

EXRAD XLE metric battery cable is designed specifically to handle the higher voltage and electrical currents required by today's hybrid and battery power vehicles. The XLE jacket insulation also isolates any stray currents making this cable very safe to operate. Our thin wall and high temperature insulations allow for lower weight and less space.

EXRAD XLE metric battery cables have an irradiated cross-linked polyolefin insulation able to withstand temperatures of 240°C and higher. The XLE high flex conductor and insulation are designed to be thinner and lighter than other high voltage cables. It is extremely flexible for easy routing in the tight confined areas of the car platform, yet tough enough to withstand the roughest environments. EXRAD XLE Hybrid can be routed through twists and turns where other cables fail. Save money and reduce weight by shortening the cable length.

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

Benefits and Features

ISO 6722 600V rating—applicable sizes.
1000 Volt in accordance to UL 758
600V per SAE J1654
Rubber Like Flexibility
Fluid Resistant
Meets ISO 6722 Requirements for -40°C to 150°C Class D

Applications

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



Part Number	Standard Conductor Bare Copper	Nom. Dia Cond.		Insulation Thickness		Nom. Dia. Primary insulation	
		in.	mm.	In.	mm	in.	mm.
EXRAD-XLEMT-4X	4mm ² 37/.38mm	.103	2.62	.020	.51	.143	3.64
EXRAD-XLEMT-6X	6mm ² 37/.45mm	.125	3.16	.020	.51	.165	4.20
EXRAD-XLEMT-10X	10mm ² 80/.40mm	.157	3.99	.030	.76	.217	5.51
EXRAD-XLEMT-25X	25mm ² 196/.40mm	.25	6.35	.038	.96	.326	8.28
EXRAD-XLEMT-35X	35mm ² 551/.28mm	.320	8.13	.038	.96	.390	9.91
EXRAD-XLEMT-50X	50mm ² 798/.28mm	.390	9.91	.045	1.14	.480	12.20
EXRAD-XLEMT-70X	70mm ² 1140/.28mm	.466	11.84	.050	1.27	.566	14.38

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EXRAD XLE Metric High Voltage Cable ISO 6722 EXRAD XLE

Section	Description	Requirement	Typical Results (35mm ² Sample)
6.4	Insulation Volume Resistivity	10 ⁹ Ω /mm min.	3.39 10 ¹¹ Ω /mm, Pass
7.1	Pressure at High Temperature	'0.8N @150°C no dielectric breakdown	no breakdown Pass
7.2	Strip Force / Adhesion	Per customer agreement	NA Pass
8.1	Low Temperature Winding	3 tns 2.5kg - 40°C no dielectric breakdown	no dielectric breakdown, no cracking, Pass
8.2	Impact	100gm @-40°C no breakdown	No breakdown, Pass
9.2	Sandpaper Abrasion	.2kg 350mm min	NA Pass
9.3	Scrape Abrasion	Per customer agreement	NA Pass
10.1	Long-Term Heat Aging	150°C 3000 hours	no breakdown, no cracks Pass
10.3	Thermal Overload	200°C 6 hours	no breakdown, no cracks, Pass
10.4	Shrinkage by heat	2mm max. 150°C	no shrinkage, Pass
11.2	Fluid Compatibility		
		Gasoline 15% max.	12% Pass
		Diesel Fuel 15% max.	9% Pass
		Engine Oil 15% max.	.3% Pass
		Ethanol 15% max.	2% Pass
		Power Steering 30% max	.3% Pass
		Automatic Transmission 25% max.	.3% Pass
		Engine Coolant 15% max	.3% Pass
		Battery Acid no breakdown	No breakdown, Pass
11.4	Ozone Resistance	45°C 85% Relative Humidity 70 hours, Ozone 50 +/- 5 pphm 1kV 1 min. (no breakdown)	No breakdown, Pass
11.5	Resistance to hot water	not less than 10-5 ohm-mm	10-10 ohm-mm Pass
11.7	Temperature and Humidity Cycling	40 - 8 hours cycles -40°C and 125°C 80 -100% relative humidity	No dielectric breakdown, no cracking, Pass
12	Resistance to Flame Propagation	70 sec. max. 50mm unburned	1 sec. after burn, Pass

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