

150 HVFX Shielded XLE Jacketed High Voltage Cable

EXRAD HVFX 600 - 1000 VOLT SHIELDED XLE JACKETED CABLE

EXRAD 150 HVFX 1000 volt shielded XLE 150 Jacketed battery cable is the next generation of high performance cross-linked insulation designed specifically to handle the higher voltage with electrical currents required by today's hybrid and electric vehicles. The enhanced flexibility of EXRAD allows for a tighter bend radius and ease of flexing. Our thin wall and high temperature insulations allow for lower weight and less space. Champlain Cables are also offered with UV resistance unlike most cross-linked Polyolefins.

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150°C	-55°C	FT-1	1000V	90°C	BLACK/ ORANGE	NO	4	4	3

Product Number	Standard Conductor Bare Copper	Nom. Dia . of Conductor in. mm.	Nom Primary Insulation Diameter in. mm.	Nom. Shield Diameter In. mm.	Nom. OD In. mm.	Shield Coverage	Voltage Rating	Min. Bend Radius Non flex mm.	Finished Weight (kg/KM)	Ampacity
EXRAD-HVX14X	14 (105/34)	.074 1.88	.106 2.69	.124 3.15	.164 4.17	95%	600	15mm	28	46
EXRAD-HVX12X	12 (105/32)	.095 2.41	.127 3.23	.145 3.68	.185 4.70	95%	600	16mm	40	60
EXRAD-HVX10X	10 (105/30)	.110 2.79	.152 3.86	.170 4.32	.210 5.33	95%	600	19mm	52	80
EXRAD-HVX8X	8 (133/29)	.166 4.22	.226 5.74	.249 6.32	.309 7.85	95%	1000	27mm	96	106
EXRAD-HVX6X	6 (133/27)	.194 4.93	.254 6.45	.277 7.04	.337 8.56	95%	1000	30mm	129	155
EXRAD-HVX4X	4 (133/25)	.288 5.79	.302 7.67	.325 8.26	.386 9.80	95%	1000	34mm	177	190
EXRAD-HVX2X	2 (665/30)	.318 8.08	.393 9.98	.416 10.57	.476 12.09	95%	1000	42mm	286	255
EXRAD-HVX1X	1 (779/30)	.346 8.79	.446 11.33	.469 11.91	.529 13.44	95%	1000	47mm	338	293
EXRAD-HVX1/0X	1/0 (1007/30)	.390 9.91	.490 12.45	.518 13.16	.598 15.19	95%	1000	53mm	440	339
EXRAD-HVX2/0X	2/0 (1254/30)	.438 11.13	.548 13.92	.576 14.63	.656 16.66	95%	1000	58mm	552	390
EXRAD-HVX3/0X	3/0 (1615/30)	.475 12.07	.585 14.86	.613 15.57	.693 17.60	95%	1000	62mm	652	451
EXRAD-HVX4/0X	4/0 (2107/30)	.602 15.29	.712 18.08	.740 18.80	.828 21.03	95%	1000	74mm	869	529







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Section	Description	Requirement	Typical Results (35mm ² Sample)		
5.1	Outside Cable Diameter	10.40 max.	9.98mm	Pass	
5.2	Insulation Thickness	0.64mm min.	0.84mm	Pass	
5.3	Conductor Diameter	8.50mm max.	8.08mm	Pass	
5.4	Conductor Resistance	0.527 mohms/m @20°C max.	0.521 mohms/m	Pass	
5.5	Withstand Voltage	600V 5kV for 5 minutes	no dielectric breakdown	Pass	
5.6	Insulation Faults	Sparktest @ 12.5kV	no faults	Pass	
5.7	Insulation Volume Resistivity	10 ⁹ Ω /mm min.	1.66 10 ¹⁶ Ω /mm	Pass	
5.8	Pressure at High Temperature	'0.8N @150°C no dielectric breakdown	no breakdown	Pass	
5.9	Strip Force / Adhesion	Per customer agreement	NA	NA	
5.10	Low Temperature Winding	3 turns 2.5kg - 40°C no dielectric breakdown	No dielectric breakdown, no cracking,	Pass	
5.11	Impact	300gm @-40°C no breakdown	no breakdown,	Pass	
5.12.4.1	Sandpaper Abrasion	NA	NA	Pass	
5.12.4.2	Scrape Abrasion	NA	NA	Pass	
5.13	Long-Term Heat Aging	150°C 3000 hours	no breakdown, no cracks	Pass	
5.15	Thermal Overload	200°C 6 hours	no breakdown, no cracks,	Pass	
5.16	Shrinkage by heat	2mm max. 150°C	no shrinkage,	Pass	
5.17	Fluid Compatibility	Gasoline 15% max.	7.5%	Pass	
		Diesel Fuel 15% max.	2.7%	Pass	
		Engine Oil 15% max.	3.2%	Pass	
		Ethanol 15% max.	4.7%	Pass	
		Power Steering 30% max	4.1%	Pass	
		Automatic Transmission 25% max	3.2%	Pass	
		Engine Coolant 15% max	0.4%	Pass	
		Battery Acid no breakdown	no breakdown,	Pass	
5.19	Ozone Resistance	45°C 85% Relative Humidity 70 hours, Ozone 50 +/- 5 pphm 1kV 1 min. (no break- down)	no breakdown,	Pass	
5.20	Resistance to hot water	not less than 10-5 ohm-mm	10-14 ohm-mm	Pass	
5.21	Temperature and Humidity Cy- cling	40 - 8 hours cycles -40°C and 125°C 80 - 100% relative humidity	no dielectric breakdown, no cracking,	Pass	
5.22	Resistance to Flame	70 sec. max. 50mm unburned	1 sec. after burn	Pass	

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 swithout 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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