



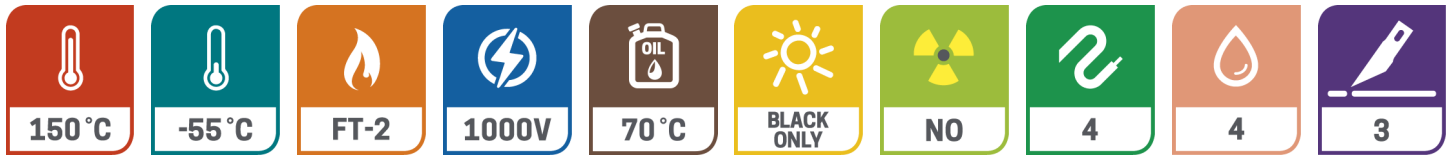
150 HVFX

High-Voltage

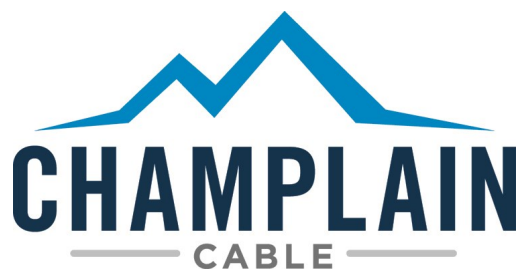
ISO Battery Cable

ISO 6722-1, Class D, Thick Wall, 1000V

- Highly Engineered EXTRAD[®] 150 HVFX Irradiation Crosslinked Polyolefin
- Meets or Exceeds ISO-6722-1 Requirements
- Enhanced Flexibility, Thin, Fluid Resistant and Tough
- Performs at Higher Temperatures for Longer Periods of Time.
- Withstands Thermal Excursions to 240°C and higher.
- Excellent Low-Temperature Performance



Product Number	Std Conductors Bare Copper	Nom Conductor		Nom. Insulation		Nom Finished		Min Static		Finished Weight Kg/KM	Conductor Resistance Ω per KM at 20°C
		Diameter		Thickness		Diameter		Bend Radius			
		mm.	In.	mm.	In.	mm.	In.	mm.	In.		
EXRAD--HVFXI-6	6mm ² (84/.30)	2.92	.115	1.06	.042	4.80	.189	24	1.0	68	3.01
EXRAD--HVFXI-10	10mm ² (80/.40)	3.99	.157	1.06	.042	6.20	.244	31	1.3	112	1.78
EXRAD--HVFXI-12	12mm ² (154/.32)	4.88	.192	1.06	.042	7.00	.276	35	1.4	134	1.52
EXRAD--HVFXI-16	16mm ² (105/.46)	5.21	.205	1.24	.049	8.00	.314	40	1.6	208	1.16
EXRAD--HVFXI-20	20mm ² (247/.32)	6.17	.243	1.24	.049	8.60	.339	43	1.7	216	0.95
EXRAD--HVFXI-25	25mm ² (798/.20)	6.85	.270	1.24	.049	9.90	.390	50	2.0	261	0.74
EXRAD--HVFXI-35	35mm ² (551/.28)	8.12	.320	1.24	.049	10.60	.417	53	2.1	356	0.52
EXRAD--HVFXI-40	40mm ² (494/.32)	8.89	.350	1.27	.050	11.80	.464	59	2.3	419	0.47
EXRAD--HVFXI-50	50mm ² (798/.28)	9.78	.385	1.47	.058	12.70	.500	63	2.5	509	0.36
EXRAD--HVFXI-70	70mm ² (1140/.28)	11.32	.446	1.47	.058	14.22	.560	87	3.4	711	0.26
EXRAD--HVFXI-95	95mm ² (1938/.25)	13.20	.521	1.65	.065	16.71	.658	102	4.1	968	0.19
EXRAD- HVFXI-120	120mm ² (2442/.25)	15.24	.600	1.65	.065	18.54	.730	112	4.5	1,278	0.16





150 HVFX

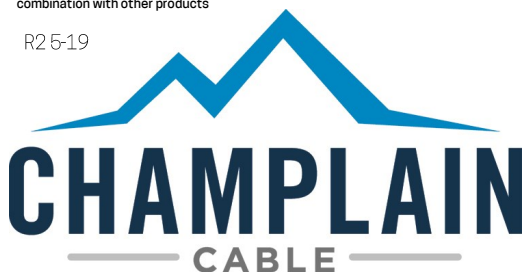
High-Voltage

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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 Ohms/mm min.	1.66 10 ¹⁶ Ohms/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	Pass
5.1	Low Temperature Winding	3 tns 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	N/A	NA	Pass
5.12.4.2	Scrape Abrasion	N/A	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.	7.50%	Pass
		Diesel Fuel 15% max.	2.70%	Pass
		Engine Oil 15% max.	3.20%	Pass
		Ethanol 15% max.	4.70%	Pass
		Power Steering 30% max	4.10%	Pass
		Automatic Transmission 25% max	3.20%	Pass
		Engine Coolant 15% max	0.40%	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 breakdown)	No Breakdown	Pass
5.2	Resistance to hot water	not less than 10-5 ohm-mm	10-14 ohm-mm	Pass
5.21	Temperature and Humidity Cycling	40 - 8 hours cycles -40°C and 125°C 80 - 100% relative humidity	No Dielectric Breakdown, No Cracking	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 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

R25-19



Manufacturing Locations:
Colchester, Vermont
El Paso, Texas
www.champcable.com