



1. Specification

- 1.1 Rated Voltage: DC500V/750V;
- 1.2 Rated Current: 5A ~ 50A;
- 1.3 Breaking Capacity: 20kA;
- 1.4 Standard: JASO-D622, ISO8820, GB31465;
- 1.5 Manufactured under a IATF16949 quality system for compliance;
- 1.6 Reach declaration available upon request;
- 1.7 Certificates: CE;
- 1.8 RoHS Compliant;

2. Features & Benefits

- 2.1 Excellent DC performance;
- 2.2 Low arc voltage and low energy let-through(I²t);
- 2.3 Superior cycling capability;
- 2.4 EV/ HEV Application;

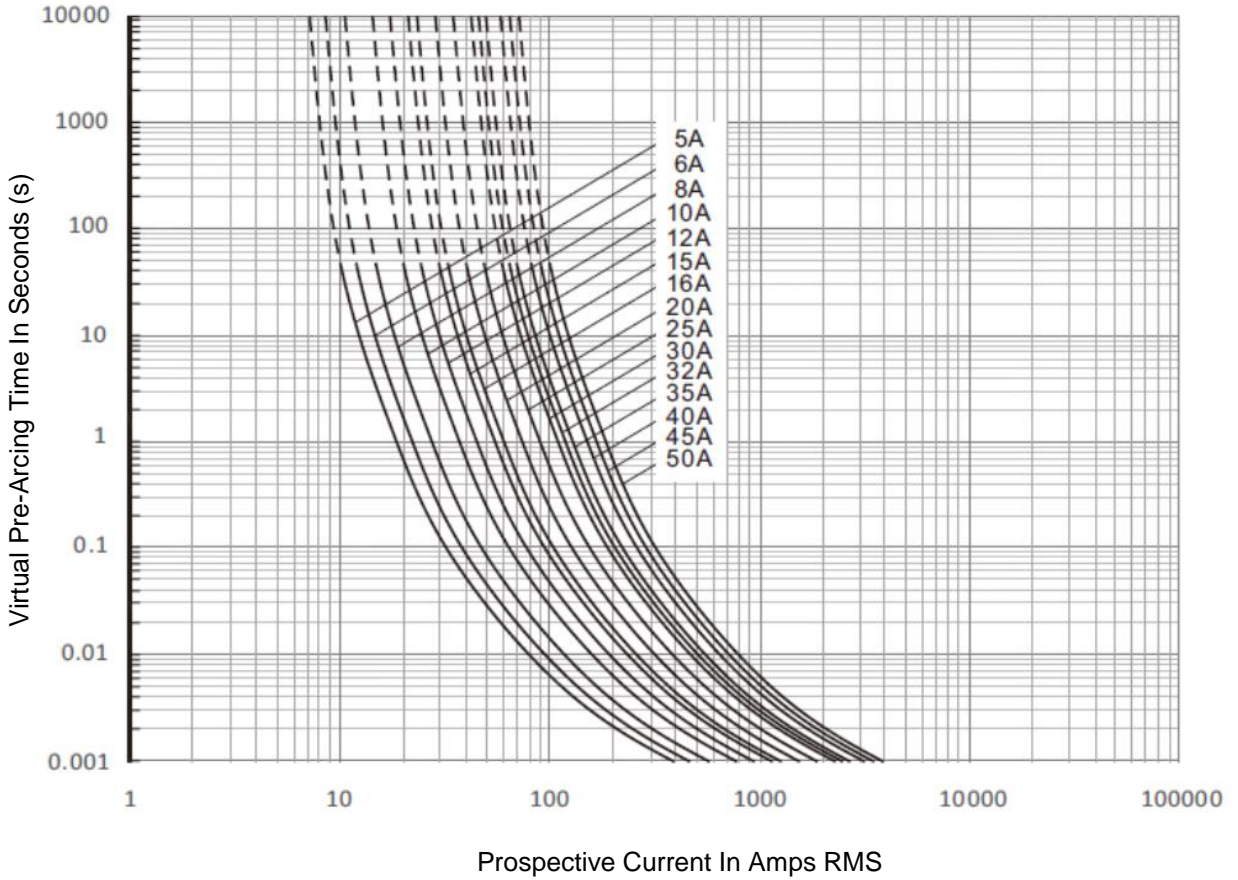
3. Technical Parameters

Model	Rated current (A)	I ² t(A ² s)		Power loss (W)
		Melting	Clearing	
HCEVF6-10H-5A/500V	5	3	9	0.8
HCEVF6-10H-6A/500V	6	4	13	0.9
HCEVF6-10H-8A/500V	8	8	26	1.2
HCEVF6-10H-10A/500V	10	13	45	1.4
HCEVF6-10H-12A/500V	12	19	68	1.7
HCEVF6-10H-15A/500V	15	30	110	2.1
HCEVF6-10H-16A/500V	16	35	131	2.2
HCEVF6-10H-20A/500V	20	58	222	2.7
HCEVF6-10H-25A/500V	25	95	371	3.3
HCEVF6-10H-30A/500V	30	141	564	3.9
HCEVF6-10H-32A/500V	32	171	700	4.0
HCEVF6-10H-35A/500V	35	208	874	4.4
HCEVF6-10H-40A/500V	40	277	1189	5.0
HCEVF6-10H-45A/500V	45	348	1533	5.6
HCEVF6-10H-50A/500V	50	450	2025	6.0

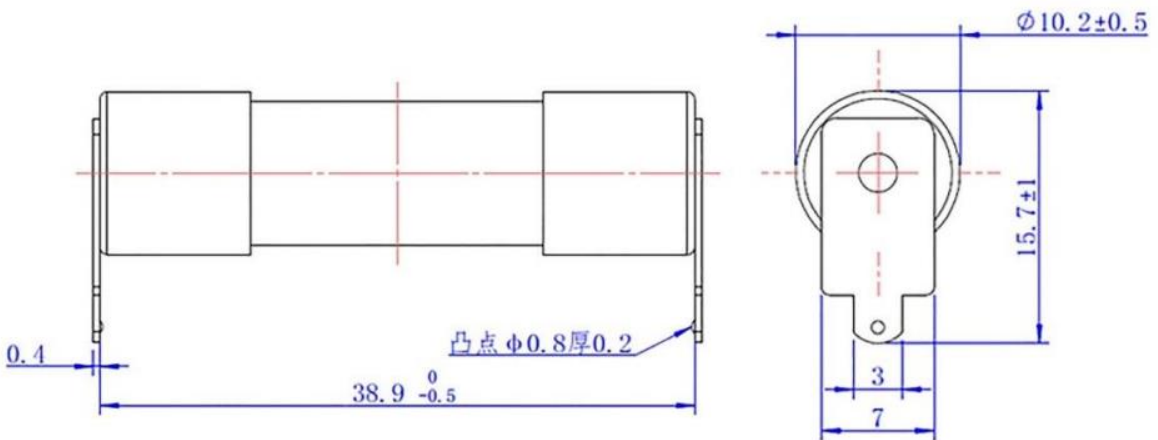
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HCEVF6-10H-30A/750V	30	141	574	3.9
HCEVF6-10H-32A/750V	32	171	715	4.2
HCEVF6-10H-35A/750V	35	208	896	5.0
HCEVF6-10H-40A/750V	40	277	1196	5.2
HCEVF6-10H-45A/750V	45	348	1553	5.8
HCEVF6-10H-50A/750V	50	450	2047	6.4

4. Time-current characteristics curves



5. Outline dimensions



6. Transportation and Storage

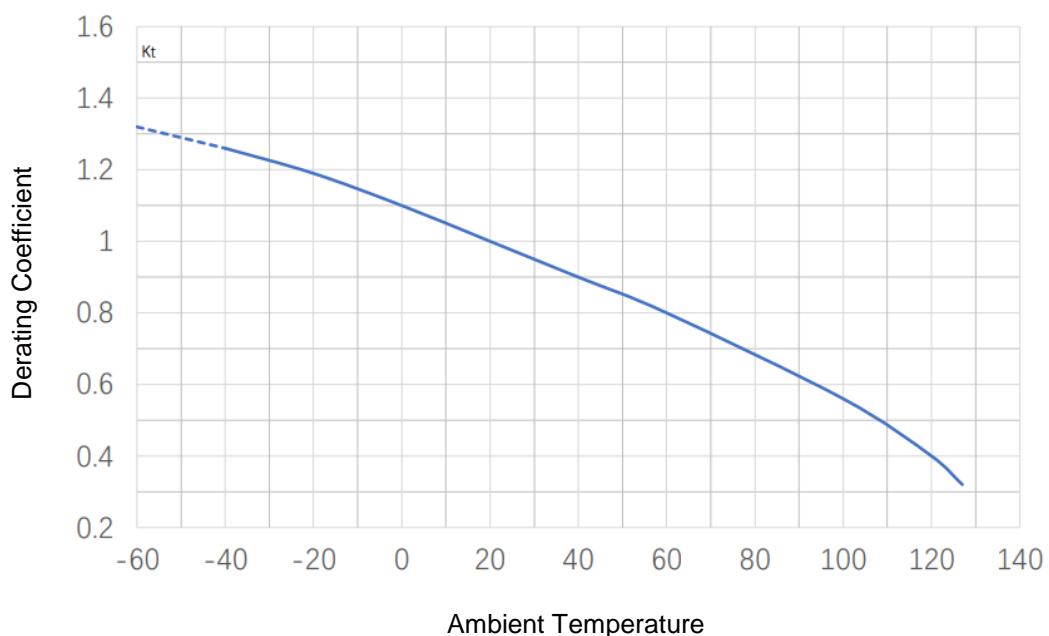
- 6.1 Avoid heavy weather attack and mechanical damage;
- 6.2 Product storage Temperature: $-40^{\circ}\text{C}\sim 120^{\circ}\text{C}(-40^{\circ}\text{F}\sim 248^{\circ}\text{F})$;
- 6.3 Product storage Humidity: $T=40^{\circ}\text{C}$ $\text{RH}\leq 70\%$, $T\leq 30^{\circ}\text{C}$ $\text{RH}\leq 80\%$, $T\leq 20^{\circ}\text{C}$ $\text{RH}\leq 90\%$;
- 6.4 Package storage Temperature: $-40^{\circ}\text{C}\sim 80^{\circ}\text{C}(-40^{\circ}\text{F}\sim 176^{\circ}\text{F})$;
- 6.5 Package storage Humidity: $\text{RH}\leq 90\%$, condensation free.

7. Operating Conditions

- 7.1 Fuses can perform regularly under the flowing conditions without corrections;
- 7.2 If over the regular operating conditions but still in allowable operating area, fuses may need corrections and extra consult. If the operating conditions is not matching the allowable area, please contact our company for more applicability tests and analysis;
- 7.3 Regular current flow should $\leq 75\%$ of recommended rated current;
- 7.4 Operating temperature: $-5^{\circ}\text{C}\sim 40^{\circ}\text{C}(23^{\circ}\text{F}\sim 104^{\circ}\text{F})$;
- 7.5 Allowable operating temperature: $-40^{\circ}\text{C}\sim 125^{\circ}\text{C}(-40^{\circ}\text{F}\sim 257^{\circ}\text{F})$;
- 7.6 Temperature correction factors: when below $-5^{\circ}\text{C}(23^{\circ}\text{F})$, low overload (L.O.) pre-arcing time will slightly extend, rated current will slightly increase;
- 7.7 If operating above $40^{\circ}\text{C}(104^{\circ}\text{F})$, rated current need extra corrections, factors: $-K_t$.

*Note: K_t value has already considered the safety current allowance under regular operating scenarios.

Derating Curve



8. Altitude

- 8.1 Operating conditions: altitude≤2500m; Allowable operating conditions: altitude is from 2000m to 4500m;
- 8.2 Altitude correction factors: high altitude will decrease the dielectric strength/ heat dissipation, and affect the pressure force;
- a) Fuses' T-rise increase 0.1-0.5K from every 100m altitude increased.
 - b) Average environment temperature decreases 0.5K from every 100m altitude increased.
 - c) If operating in opening environment, ignore the altitude affect to rated current.
 - d) If operating in enclosed environment, and the environment temperature can still top 40°C(104°F) , then rated current should be derated. Derating factors: 2%-5% from every 1000m altitude increase.
- *Note: In same series, highest rated current refers to the maximum derating factors, lowest rated current refers to the minimum derating factors.
- 8.3 Dielectric strength affects by high altitude;
- a) Between 2000m-4500m, dielectric strength will decrease 12%-15% from every 1000m. quote GB/T16935.1, correcting from different dielectric gaps.
 - b) Fuses' dielectric distance are normally much longer then GB/T16935.1, unless specific mini-sizes, ignore the dielectric gaps.
 - c) Dielectric distance between fuses and other electronic structures or the ground differs from altitude heights.

9. Vibration and Shock Resistance

- 9.1 High frequency vibration resistance:≥20g;
- 9.2 High frequency vibration resistance can satisfy track transportation/ motor vehicles;
- 9.3 Intense vibration and shocking conditions need more tests.

10. Maintenance and Safety Instructions

- 10.1 To use insulating board if needed for preventing shorting out.
- 10.2 Maintain facilities regularly, Dusting/Antioxidation/etc.
- 10.3 Replacing fuses if damaging facilities.
- 10.4 DO NOT change fuses while loading unless MUST.