

Specifications 技术参数

Dc Power Fuses

Ratings& Features Applications 电气参数/功能应用领域:

- ✧ Volts电压: 500Vdc;
- ✧ Amps电流: 35-600A;
- ✧ Interrupting Capacity分断:
 - Max Dc: 50kA 500Vdc;
 - Class of Operation: aR
 - Design For Dc Applications 直流应用设计;
 - Excellent Dc Performance 卓越的直流分断能力;
 - Low arc voltage and low energy let-through(I₂t) 焦耳积分放通量小;
 - Superior cycling capability 可循环利用率高
 - Low Watt Losses 低功率损耗;
 - Electrical Energy Storage 电能/储能;
 - DC Drives 直流驱动保护;
 - Reduced voltage starters 降压启动保护;
 - Power converters/rectifiers 电源转换/整流保护;
 - Battery pack protection 动力电池包保护;
 - Backup Protection For Dc Relay 直流继电器保护;


North American Style

Standards / Approvals 认证/标准:

- ✧ Refer To UL248.13/IEC60269.6/GB31465.6/JASO-D622/ISO8820.8;
性能参考UL248.13/IEC60269.6/GB31465.6/JASO-D622/ISO8820.8;;
- ✧ Manufactured Under a IATF16949 Quality System for Compliance with Automotive Requirements;
根据IATF16949质量体系制造符合汽车要求;
- ✧ Reach Declaration Available Upon Request;
可根据要求提供REACH声明;
- ✧ CE;
- ✧ RoHS Compliant.
符合RoHS。

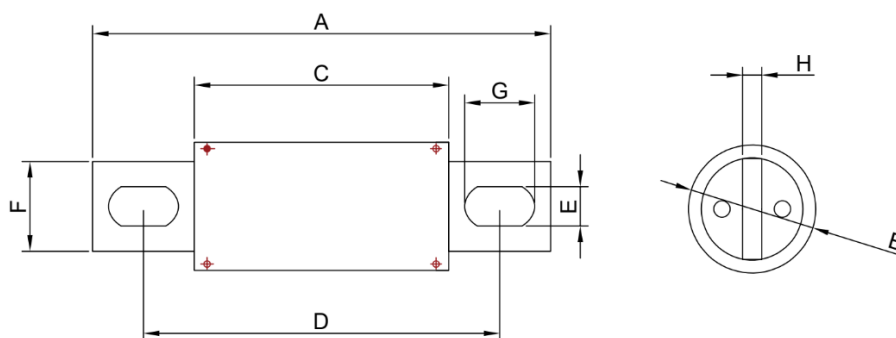
Features & benefits 产品特性:

Higher voltage rating provides overall system efficiency using smaller, more economical conductors while meeting the needs of higher voltage. Up to ten times faster opening under high fault current conditions helps assure reliable protection of circuits and components. Can be applied in parallel to realize greater ampacity within sizing guidelines, Excellent power of resisting voltaic impingement and environment temperature tolerance, Excellent resistance to mechanical vibration and impact resistance.

满足高电压、小体积、更经济的提升整体系统效率，同时满足更高电压的需求。在大的故障电流条件下，断开速度更快，确保电路和部件的可靠保护。可以并行应用，实现尺寸范围内更大的载流量。良好的抗电流冲击能力以及冷、热环境温度耐受能力，具有优越的抗机械振动与冲击能力。

Product Model 产品型号说明:

<u>HC</u>	<u>HV</u>	<u>F</u>	<u>500</u>	=	<u>300</u>	<u>A</u>	=	<u>38R</u>
HC: Company Code								
EV: Electric Vehicle								
HV: High Speed								
F: Fiberglass T: Ceramics								
Rated Voltage: 500: 500V								
Rated Current: 300: 300A								
x: Connect A, AP, B, C, E, F, H, U, T								
Type Series Code: 20R, 26R, 31R, 38R, 51R, 63R*								

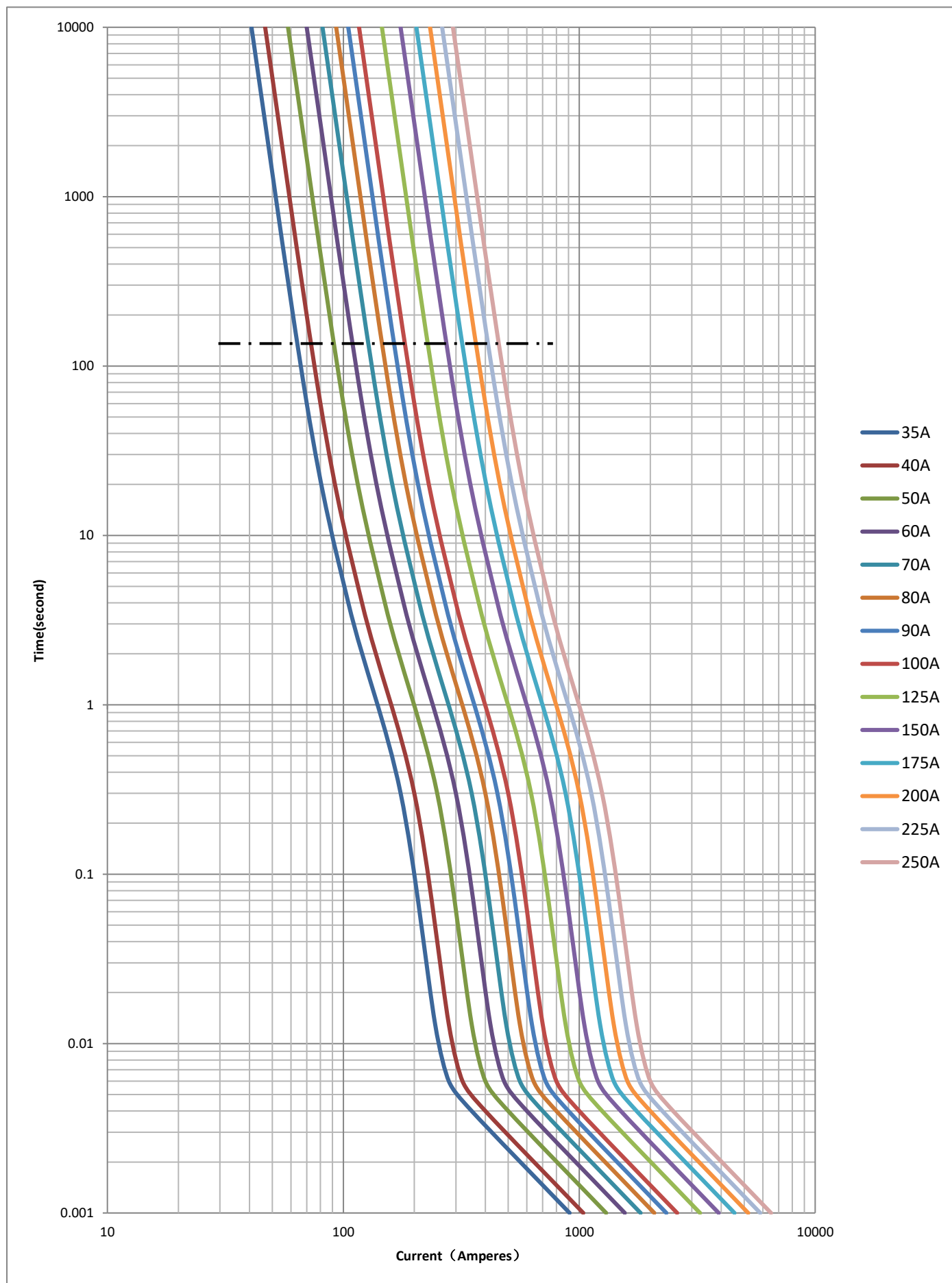
Dimensions (mm) 尺寸


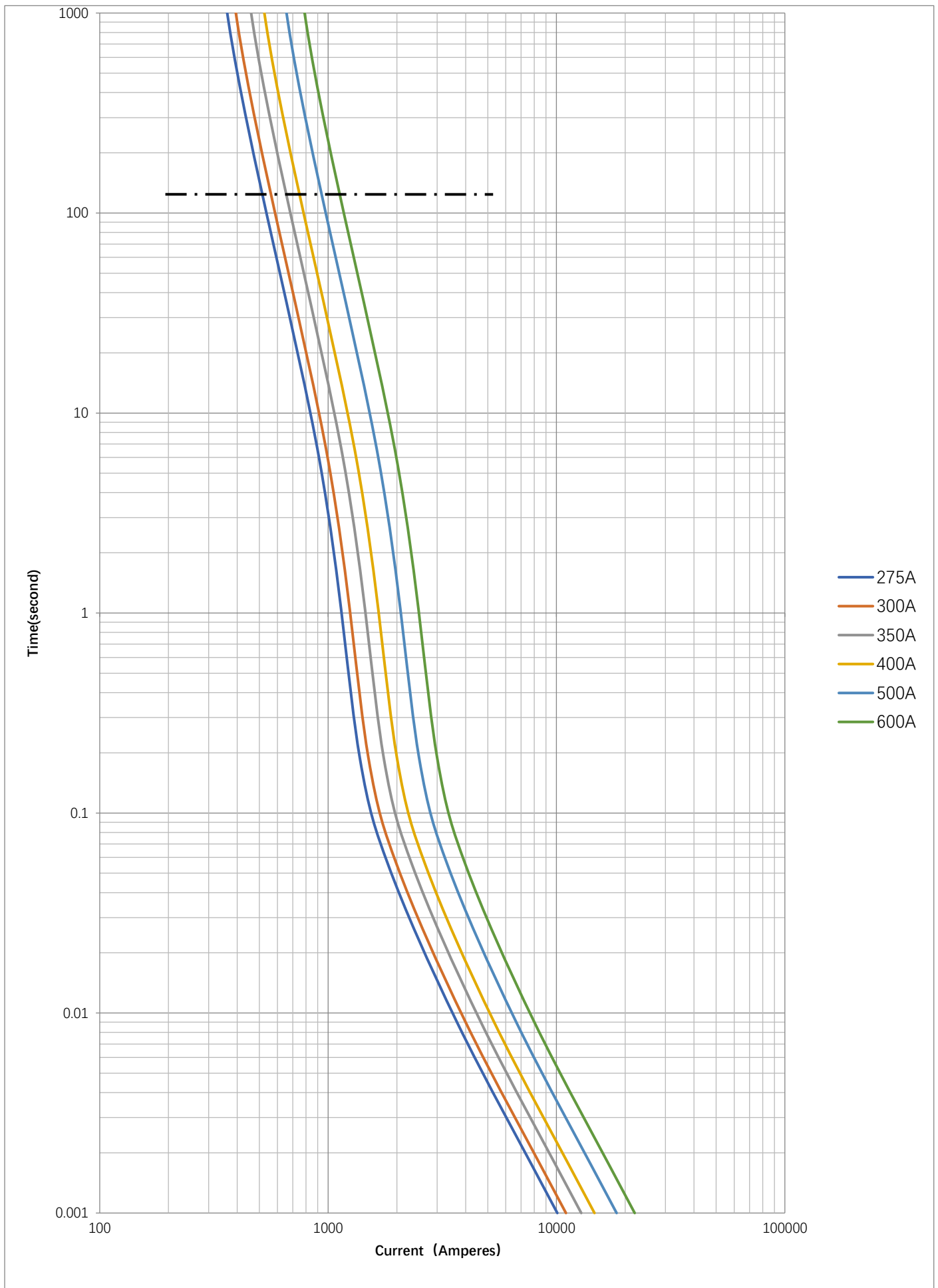
S.	电流范围	A±1.5	B±1	C±1	D±1.5	E±0.5	F±0.5	H±1	G±0.5
20R	35-60A	81.00	20.00	40.00	60.5	8.50	15.00	3.00	13.00
26R	70-100A	92.00	26.00	44.00	68.5	8.50	20.00	3.00	13.00
31R	125-200A	92.00	31.00	46.00	72.5	8.50	25.00	6.00	12.50
38R	225-400A	110.00	38.00	53.00	81.5	10.50	25.00	6.00	20.00
51R	450-600A	110.00	51.00	53.00	81.5	10.50	40.00	6.00	20.00

Electrical Characteristics 电气特性

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Catalog no.	Rated Current	I ² t (A ² Sec)		Watts Loss 1.0In 功耗	Breaking Capacity	Standard recommended bolts 推荐使用螺栓	Installation torque 推荐螺栓扭矩
		Melting A ² S	Clearing A ² S				
HCHVF500-35A-20R	35	35	159	9	50kA	M8	12.0±1.0 N.m
HCHVF500-40A-20R	40	79	339	8	50kA	M8	12.0±1.0 N.m
HCHVF500-50A-20R	50	140	710	8	50kA	M8	12.0±1.0 N.m
HCHVF500-60A-20R	60	218	954	11	50kA	M8	12.0±1.0 N.m
HCHVF500-70A-26R	70	218	954	11	50kA	M8	12.0±1.0 N.m
HCHVF500-80A-26R	80	317	1484	14	50kA	M8	12.0±1.0 N.m
HCHVF500-90A-26R	90	374	1696	16	50kA	M8	12.0±1.0 N.m
HCHVF500-100A-26R	100	494	2120	18	50kA	M8	12.0±1.0 N.m
HCHVF500-125A-31R	125	832	3710	27	50kA	M8	24.0±3.0 N.m
HCHVF500-150A-31R	150	1144	4876	32	50kA	M8	24.0±3.0 N.m
HCHVF500-175A-31R	175	1508	6572	37	50kA	M8	24.0±3.0 N.m
HCHVF500-200A-31R	200	1976	9010	43	50kA	M8	24.0±3.0 N.m
HCHVF500-225A-38R	225	4784	24698	42	50kA	M10	24.0±3.0 N.m
HCHVF500-250A-38R	250	6552	34132	44	50kA	M10	24.0±3.0 N.m
HCHVF500-275A-38R	225	8216	42718	49	50kA	M10	24.0±3.0 N.m
HCHVF500-300A-38R	300	10192	52788	55	50kA	M10	24.0±3.0 N.m
HCHVF500-325A-38R	325	14248	67628	57	50kA	M10	24.0±3.0 N.m
HCHVF500-350A-38R	350	15080	77274	62	50kA	M10	24.0±3.0 N.m
HCHVF500-400A-38R	400	19968	102502	69	50kA	M10	24.0±3.0 N.m
HCHVF500-450A-51R	450	25688	134620	79	50kA	M10	24.0±3.0 N.m
HCHVF500-500A-51R	500	30368	157940	90	50kA	M10	24.0±3.0 N.m
HCHVF500-600A-51R	600	42952	218360	115	50kA	M10	24.0±3.0 N.m

Time-Current Curve 时间电流曲线图





Operating conditions 使用条件

- ✧ Product storage Temperature: $-40^{\circ}\text{C} \sim 120^{\circ}\text{C}$ ($-40^{\circ}\text{F} \sim 248^{\circ}\text{F}$);
产品存储温度: $-40^{\circ}\text{C} \sim 120^{\circ}\text{C}$, 在 40°C 时相对湿度不大于70%;
- ✧ Product storage Humidity: $T=40^{\circ}\text{C}$ $\text{RH} \leq 70\%$, $T \leq 30^{\circ}\text{C}$ $\text{RH} \leq 80\%$, $T \leq 20^{\circ}\text{C}$ $\text{RH} \leq 90\%$;
在 30°C 以下, 产品相对湿度不大于80, 在 20°C 以下, 相对湿度不大于90%;
- ✧ Package storage Temperature: $-40^{\circ}\text{C} \sim 80^{\circ}\text{C}$ ($-40^{\circ}\text{F} \sim 176^{\circ}\text{F}$);
包装存储温度: $-40^{\circ}\text{C} \sim 80^{\circ}\text{C}$;
- ✧ Fuses can perform regularly under the flowing conditions without corrections;
熔断器在下述的正常使用条件下工作, 不需要额外的修正;
- ✧ Regular current flow should $\leq 75\%$ of recommended rated current;
推荐长期通流的电流值不大于额定电流的75%;
- ✧ High frequency vibration resistance: $\geq 20\text{g}$;
本系列熔断器有良好的抗振动和冲击的耐受能力, 可承受20g以上的加速度;
- ✧ Intense vibration and shocking conditions need more tests.
振动较为强烈的应用环境, 可商议进行对应测试, 一般要经过较长的周期。
- ✧ Replacing fuses if damaging facilities;
对有机损伤的熔断器必须进行更换;
- ✧ DO NOT change fuses while loading unless MUST.
除非使用要求允许, 如熔断器式负荷开关, 否则请勿带负载更换熔断器。
- ✧ Operating temperature: $-5^{\circ}\text{C} \sim 40^{\circ}\text{C}$ ($23^{\circ}\text{F} \sim 104^{\circ}\text{F}$);
正常使用条件: $-5^{\circ}\text{C} \sim 40^{\circ}\text{C}$;
- ✧ Allowable operating temperature: $-40^{\circ}\text{C} \sim 125^{\circ}\text{C}$ ($-40^{\circ}\text{F} \sim 257^{\circ}\text{F}$);
允许使用条件: $-40^{\circ}\text{C} \sim 125^{\circ}\text{C}$;
- ✧ Temperature correction factors: when below -5°C (23°F), low overload (L.O.) pre-arcing time will slightly extend, rated current will slightly increase;
周围空气温度变化的参数修正: 在低于 -5°C 下工作, 熔断器的低倍过载电流的弧前时间略有延长, 额定电流略有增大, 但是除非 -5°C 以上不是工作范围, 一般不参考增加熔断器额定电流;
- ✧ If operating above 40°C (104°F), rated current need extra corrections, factors: $-K_t$ ①.
熔断器在 40°C 以上工作, 额定电流需要额外的修正, 修正系数为 $-K_t$ 。

*Note①: K_t value has already considered the safety current allowance under regular operating scenarios.

*注1: K_t 的取值已考虑熔断器在正常工作条件下的额定电流安全余量的影响。

