

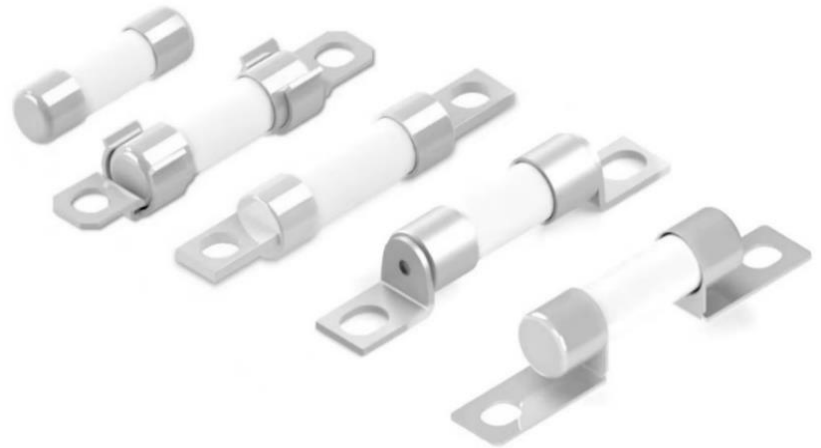
Specifications 技术参数

10x38mm Cylindrical Fuses

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

Electric Vehicle Auxiliary

- ✧ Volts电压: 500Vdc;
- ✧ Amps电流: 10-50A;
- ✧ Interrupting Capacity分断:
 - Max Dc 20kA 500Vdc;
 - Min Dc 135% In;
- ✧ Low Watt Losses 低功率损耗;
- ✧ Design For Dc Applications 直流应用设计;
- ✧ Excellent Dc Performance 卓越的直流分断能力;
- ✧ Battery Pack Protection 动力电池包保护;
- ✧ EV/HEV 纯电动汽车和混合动力汽车设计;
- ✧ Backup Protection For Dc Relay 直流继电器保护;



Standards / Approvals 认证/标准:

- ✧ Refer To JASO-D622/ISO8820.8/GB31465.6;
性能参考JASO-D622/ISO8820.8/GB31465.6;
- ✧ 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:

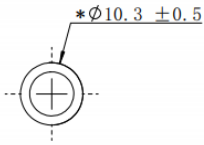
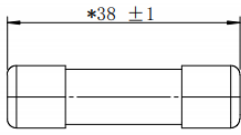
Apply to all kinds of BDU/PDU branch protection of EV, Excellent power of resisting voltaic impingement and environment temperature tolerance, Excellent resistance to mechanical vibration and impact resistance, Fully meet the requirements of automotive application.

适用于各种电动汽车BDU及PDU支路保护，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，完全满足汽车应用条件。

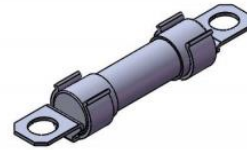
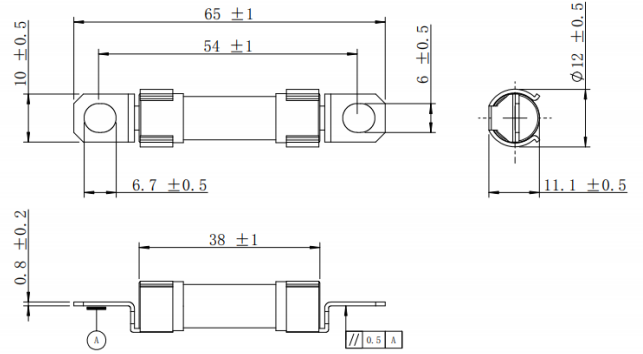
Product Model 产品型号说明:

HC	EV	I	500	=	50	A	=	10R
HC: Company Code								
HV: High Speed								
EV: Electric Vehicle								
F: Fast Acting T: Slow-Low								
Rated Voltage: 500: 500V								
Rated Current: 50: 50A								
x: Connect A, AP, B, C, H, P, T								
Type Series Code: 10R								

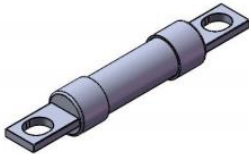
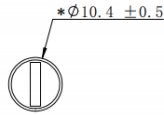
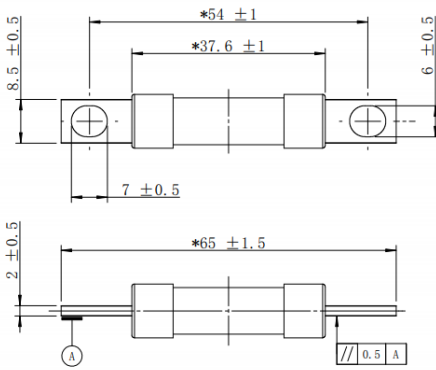
Dimensions (mm) 尺寸



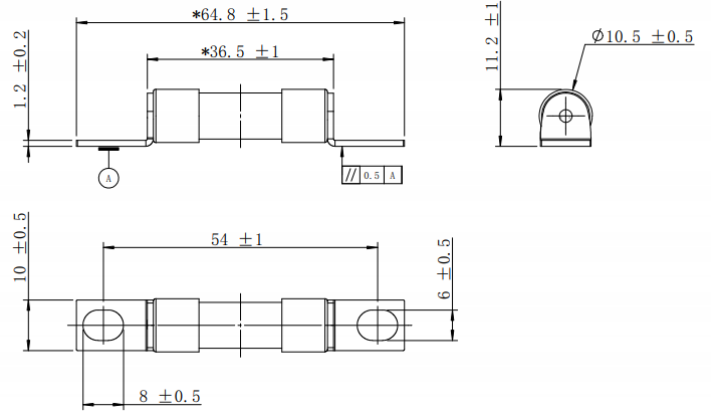
Ferrule
xxA-10R
单体式 熔断器



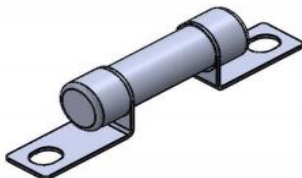
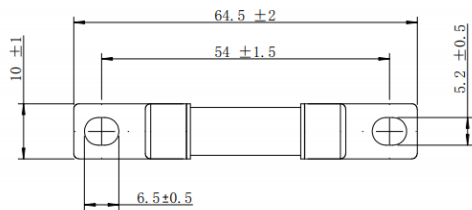
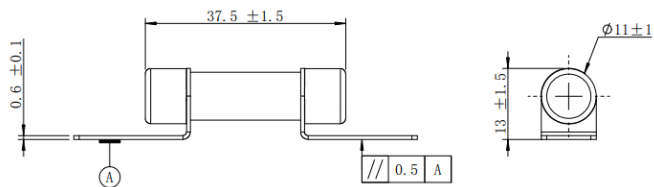
Axial bolt-on*1
xxAP-10R
轴向 螺栓连接 (分体)



Axial bolt-on*2
xxB-10R
轴向 螺栓连接 (一体)



Flush bolt-on
xxC-10R
平齐 螺栓连接



Surface Mount
xxH-10R
表面 安装连接

Standard recommended bolts 推荐使用螺栓	Installation torque 推荐螺栓扭矩
M5	4.5±1.0(N.m)

Available Fuse Catalog No. 安装型号

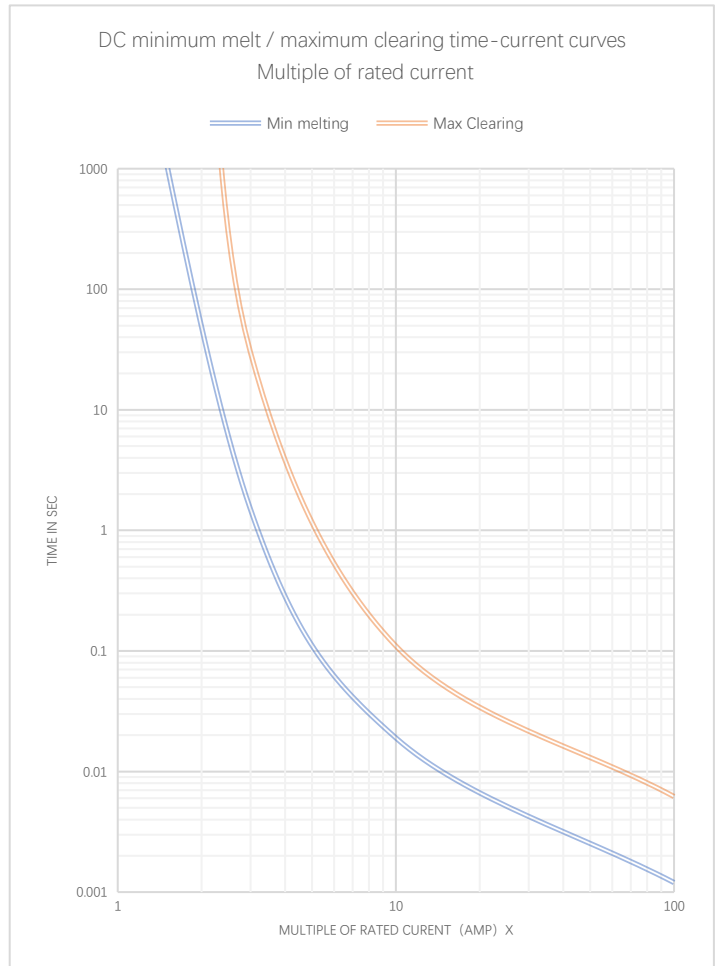
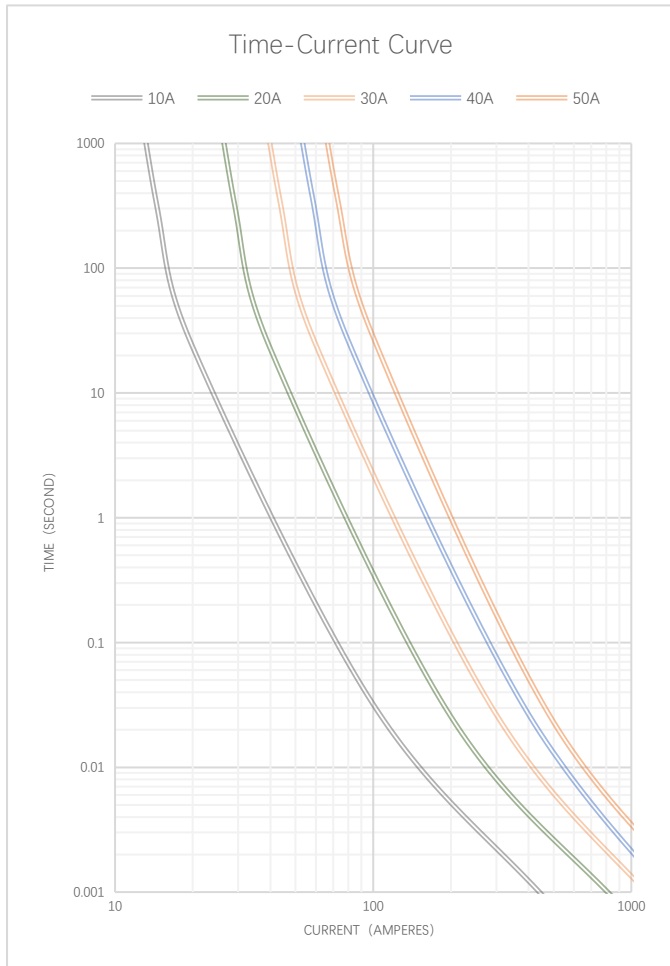
Catalog no./terminals					
Ferrule	Axial bolt-on *1	Axial bolt-on *2	Flush bolt-on	Surface Mount	Amps
<u>10A-10R</u>	<u>10AP-10R</u>	<u>10B-10R</u>	<u>10C-10R</u>	<u>10H-10R</u>	10
<u>20A-10R</u>	<u>20AP-10R</u>	<u>20B-10R</u>	<u>20C-10R</u>	<u>20H-10R</u>	20
<u>30A-10R</u>	<u>30AP-10R</u>	<u>30B-10R</u>	<u>30C-10R</u>	<u>30H-10R</u>	30
<u>40A-10R</u>	<u>40AP-10R</u>	<u>40B-10R</u>	<u>40C-10R</u>	<u>40H-10R</u>	40
<u>50A-10R</u>	<u>50AP-10R</u>	<u>50B-10R</u>	<u>50C-10R</u>	<u>50H-10R</u>	50

• **Flush bolt-on for 50A: HCHVT500-10C-10R**

Fuse Ratings 额定参数

Fuse Amps	Average @ 20 kA/500 Vdc		Power Loss (w)
	I ² t Melting	I ² t Clearing	50%
<u>10</u>	<u>60</u>	<u>320</u>	<u>0.32</u>
<u>20</u>	<u>405</u>	<u>1020</u>	<u>0.53</u>
<u>30</u>	<u>1050</u>	<u>2380</u>	<u>1.35</u>
<u>40</u>	<u>1650</u>	<u>4250</u>	<u>2.05</u>
<u>50</u>	<u>2680</u>	<u>5760</u>	<u>3.30</u>

✧ DC Cold Resistance are measured at <10% of rated current in ambient temperature of 25°C;

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: $-Kt$ 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 $-Kt$ 。
- *Note①: Kt value has already considered the safety current allowance under regular operating scenarios.
*注1: Kt 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。

