Specifications 技术参数

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



- ✧ Volts电压: 450Vdc500Vdc;
- ✧ Amps电流: 10A-60A;
- ✧ Interrupting Capacity 分断:
- ✧ Max BC 20kA 500Vdc;
- ✧ Class of Operation: aR
- ✧ Body:
  10-32A：**Ceramics:** 管体材质：陶瓷;
  35-60A：**Fiberglass:** 管体材质：玻纤;
- ✧ 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;
- ✧ Superior cycling capability 可循环利用率高;

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;
- ✧ 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.

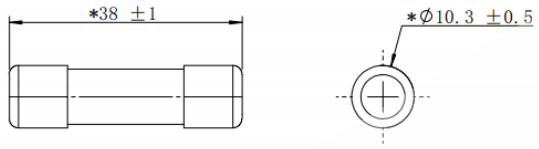
满足高电压、小体积、更经济的提升整体系统效率，同时满足更高电压的需求。在大的故障电流条件下，断开速度更快，确保电路和部件的可靠保护。可以并行应用，实现尺寸范围内更大的载流量。良好的抗电流冲击能力以及冷、热环境温度耐受能力，具有优越的抗机械振动与冲击能力。

Product Model 产品型号说明:

GF EV F 500 - 50 A - 10R

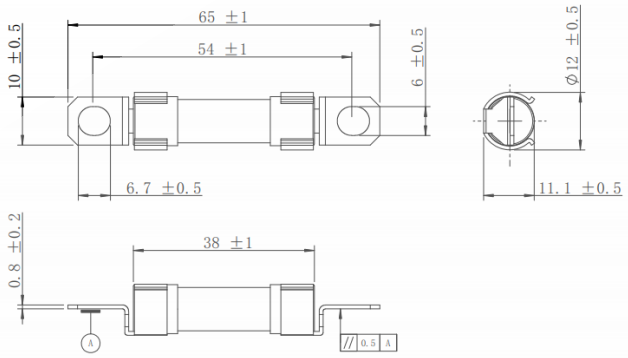
- HC：Company Code
- EV：Electric Vehicle
- F：Fiberglass T：Ceramics
- Rated Voltage：500：500V
- Rated Current：50：50A
- x：Connect： A，AP，H，C
- Type Series Code：10R

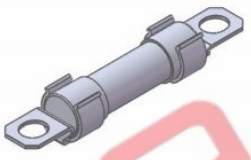
Dimensions (mm) 尺寸



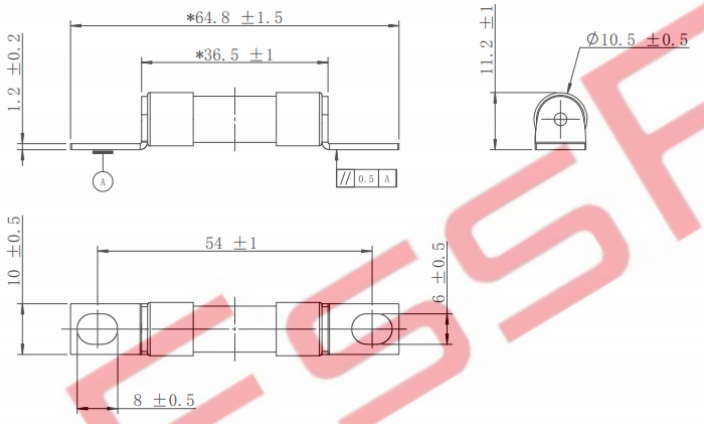


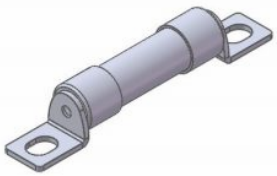
FerrulexxA-10R 单体式 熔断器



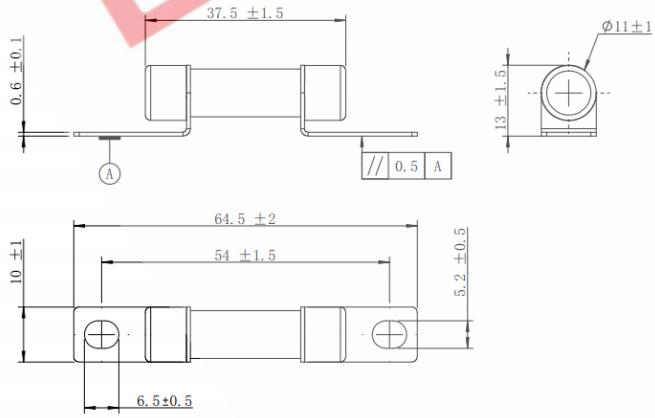


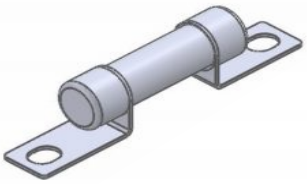
Axial bolt-on*1xxAP-10R 轴向 螺栓连接（分体）





Flush bolt-onxxC-10R 平齐螺栓连接





Surface MountxxH-10R 表面安装连接

Standard recommended bolts	Installation torque	Standard recommended bolts	Installation torque
推荐使用螺栓	推荐螺栓扭矩	推荐使用螺栓	推荐螺栓扭矩
M5	4.5±1.0(N.m)	M6	5.5±1.0(N.m)

Available Fuse Catalog No. 安装型号

Catalog no./terminals				
Ferrule	Axial bolt-on *1	Flush bolt-on	Surface Mount	Amps
10A-10R	10AP-10R	10C-10R	10H-10R	10
15A-10R	15AP-10R	15C-10R	15H-10R	15
20A-10R	20AP-10R	20C-10R	20H-10R	20
25A-10R	25AP-10R	25C-10R	25H-10R	25
30A-10R	30AP-10R	30C-10R	30H-10R	30
32A-10R	32AP-10R	32C-10R	32H-10R	32
40A-10R	40AP-10R	40C-10R	40H-10R	40
50A-10R	50AP-10R	50C-10R	50H-10R	50
60A-10R	60AP-10R	60C-10R	60H-10R	60

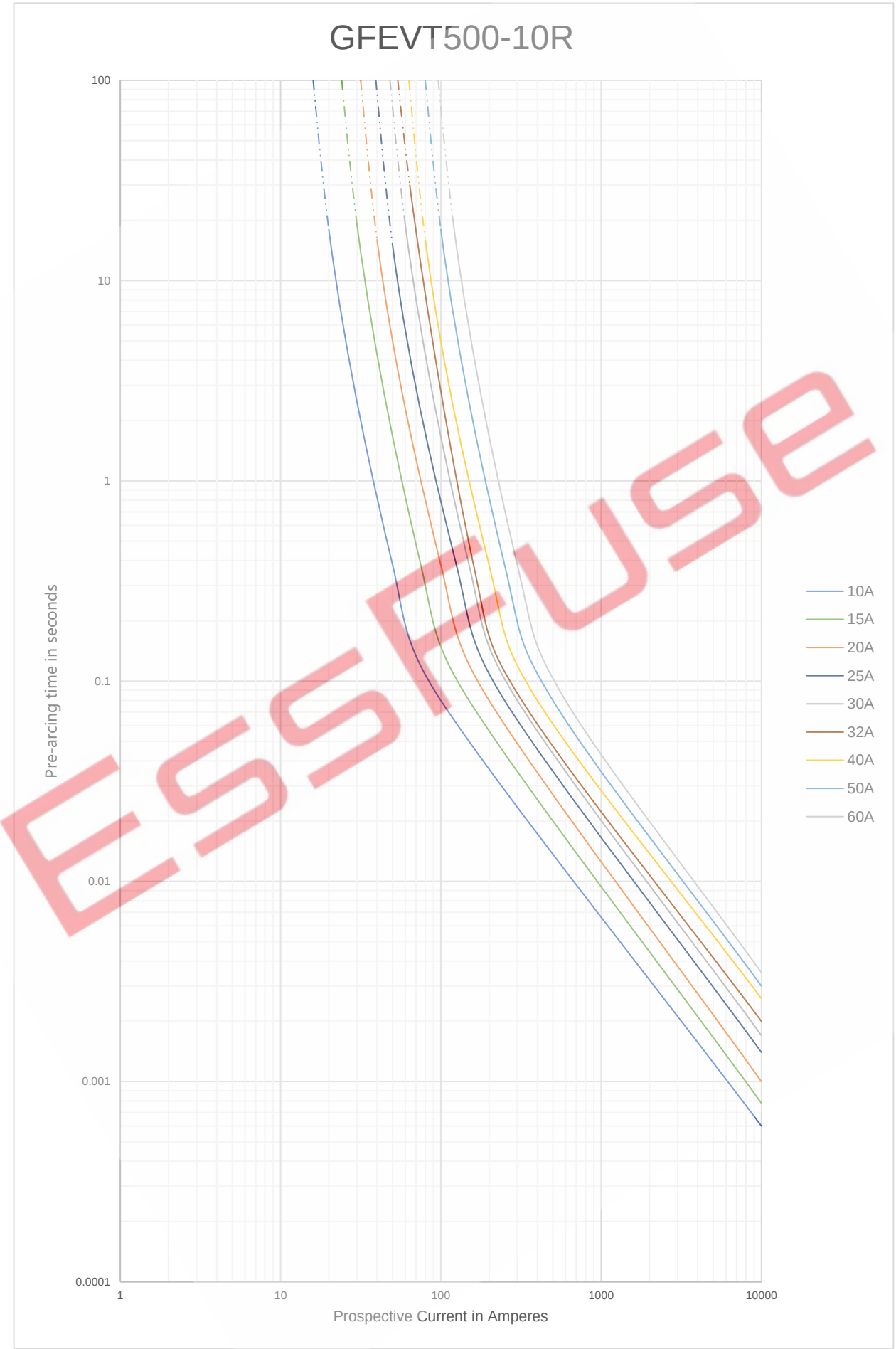
- **Flush bolt-on for10A**:
- **GFEVT500-10C-10R**

Fuse Ratings 额定参数

Fuse Amps	Average @ 20 kA/500 Vdc		Power Loss（w）
	I²t Melting	I²t Clearing	100%
10	33.3	174.6	2.0
15	81.6	431.1	2.3
20	172.5	912.6	3.0
25	278.9	1504.0	3.8
30	401.2	2166.9	4.5
32	425.6	2351.5	4.8
40	721.6	4311.5	6.0
50	1036.0	5184.0	8.0
60	2098.0	6480.0	10.0

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

Time-Current Curve 时间电流曲线图



EssFuse

Operating conditions 使用条件

- ✧ Product storage Temperature: -40°C~120°C(-40°F~248°F);
  产品存储温度：-40℃~120℃，在40℃时相对湿度不大于70%;
- ✧ Product storage Humidity: T=40°C RH≤70%, T≤30°C RH≤80%, T≤20°C RH≤90%;
  在30℃以下，产品相对湿度不大于80，在20℃以下，相对湿度不大于90%;
- ✧ Package storage Temperature: -40°C~80°C(-40°F~176°F);
  包装存储温度：-40℃~80℃;
- ✧ 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 ≤ 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:≧20g;
  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;
  对有机械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°C~40°C（23°F~104°F）;
  正常使用条件：-5℃~40℃;
- ✧ Allowable operating temperature:-40°C~125°C（-40°F~257°F）;
  允许使用条件：-40℃~125℃;
- ✧ 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℃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℃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: -Kt①.
  熔断器在40℃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。

