Specifications 技术参数

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

- ✧ Volts 电压: 1000Vdc;
- ✧ Amps 电流: 10A-35A;
- ✧ Breaking Capacity 分断能力;
  Max BC 30kA 1000Vdc;
  Min BC 135% In;
- ✧ Time Constant:≤2±0.5 ms;
  时间常数:≤2±0.5 ms;
- ✧ It has a low I^2t value;
  低I^2t值,焦耳积分放通量小;
- ✧ Low voltage drop;
  低功率损耗;
- ✧ Excellent DC Performance;
  卓越的直流分断能力;
- ✧ Variety of mounting options for flexibility;
  安装灵活多样式;
- ✧ Capable of interrupting low over currents associated with faulted PV strings;
  能够中断于故障关联的低过电流;

Standards / Approvals 认证/标准:

- ✧ Refer To UL-248-19/IEC 60269-1/6; 性能参考UL-248-19/IEC 60269-1/6;
- ✧ 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:

The GFPVT1000 solar fuse is designed to integrate into an in-line assembly within a wire harness. The fuse provides photovoltaic (PV) protection that meets UL 248-19 for photovoltaic applications. The Can be electrically insulated by either over molding or using heat-shrink. Same time Meets IEC 60269-6 electrical performance requirements.

GFPVT1000 太阳能（光伏）系列保险丝设计为集成或到线束内的组件中。熔断器提供符合UL 248-19光伏应用要求的光伏（PV）保护。可以通过二次成型或使用热缩进行电气绝缘。同时满足IEC 60269-6电气性能要求。

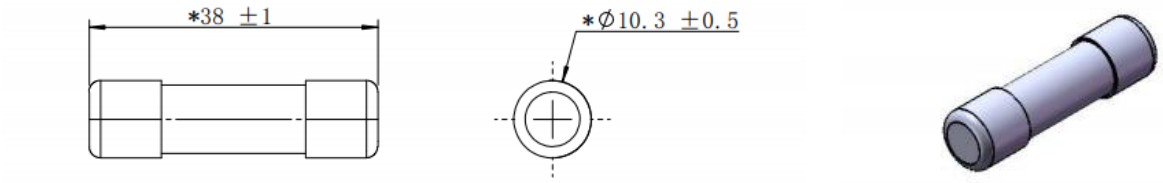
Product Model 产品型号说明:

GF	PV	T	1000	-	20	A	-	10R

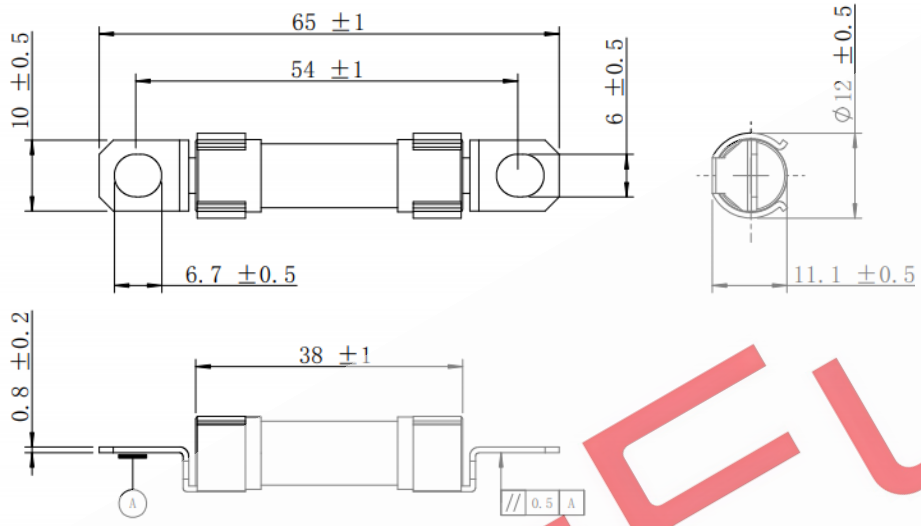
GF: Company Code
PV: Photovoltaic

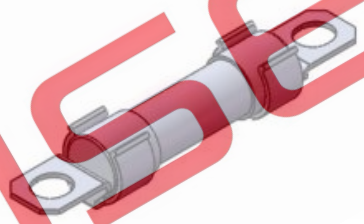
F: Fiberglass **T**: Ceramics
Rated Voltage: 1000: 1000V
Rated Current: 20: 20A
x: **Connect**: A, AP , B , C , H
Type Series Code: 10R

Dimensions (mm) 尺寸



Ferrule xxA-10R 单体式 熔断器





Axial bolt-on xxAP-10R 轴向 螺栓连接（分体）

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

Product Characteristics 产品特性

Item	Test condition/Methods	Standard	Performance
Time/Current	100% of current rating	IEC 60269/UL248-19	No Fusing；4 hours Min.
	113% of current rating *IEC	IEC 60269	60 Minutes Min.
	145% of current rating *IEC	IEC 60269	60 Minutes Max.
	105% of current rating *UL	UL-248.19	60 Minutes Min.
	135% of current rating *UL	UL-248.19	60 Minutes Max.
	200% of current rating	IEC 60269/UL248-19;1-30A	4 Minutes Max.
		IEC 60269/UL248-19;31-60A	6 Minutes Max.
Endurance Test	100% of rating current for 4 hours and testing Temperature rise at the last 5min.	IEC 60269-6 UL248-19	≤65K

✧Loading 100% Rated Current (1.0In A) for flowing, and it's available to let current keep on flowing at least 4 hour without any melting.

Fuse Ratings 额定参数

Part No.	Fuse Amps	Average @30KA/1000Vdc		Power Loss (W)		Approvals
		A^2s Melting	A^2s Clearing	80%	100%	UL
GFPVT1000-10A-10R	10	210	1175	1.1	1.5	○ Pending
GFPVT1000-12A-10R	12	252	1405	1.3	1.7	○ Pending
GFPVT1000-15A-10R	15	315	1757	1.6	2.3	○ Pending
GFPVT1000-16A-10R	16	326	1780	1.6	2.3	○ Pending
GFPVT1000-20A-10R	20	420	2340	2.1	2.9	○ Pending
GFPVT1000-25A-10R	25	525	2929	2.7	3.5	○ Pending
GFPVT1000-30A-10R	30	630	3515	3.2	4.2	○ Pending
GFPVT1000-32A-10R	32	890	3995	4	5.3	○ Pending
GFPVT1000-35A-10R	35	975	4545	4.6	6.2	○ Pending

Ferrule xxA-10R

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

Part No.	Fuse Amps	Average @30KA/1000Vdc		Power Loss (W)		Approvals
		A^2s Melting	A^2s Clearing	80%	100%	UL
GFPVT1000-10AP-10R	10	210	1175	1.1	1.5	○ Pending
GFPVT1000-12AP-10R	12	252	1405	1.3	1.7	○ Pending
GFPVT1000-15AP-10R	15	315	1757	1.6	2.3	○ Pending
GFPVT1000-16AP-10R	16	326	1780	1.6	2.3	○ Pending
GFPVT1000-20AP-10R	20	420	2340	2.1	2.9	○ Pending
GFPVT1000-25AP-10R	25	525	2929	2.7	3.5	○ Pending
GFPVT1000-30AP-10R	30	630	3515	3.2	4.2	○ Pending
GFPVT1000-32AP-10R	32	890	3995	4	5.3	○ Pending
GFPVT1000-35AP-10R	35	975	4545	4.6	6.2	○ Pending

Axial bolt-on xxAP-10R

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

EssFuse

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。

