

Version No.:2013001

Spec. No.: SFA-SPV

# 规格说明书

## Specification Datasheet

产品名称: SPV 系列 快断型 陶瓷管保险丝

**Product Type:** SPV Series *Fast-Acting Ceramic Tube Fuse*

应用领域: 光伏、仪表、电力、通信、照明、电源

**Application:** *Photovoltaic (PV) systems, Digital Multimeters, Electricity, Telecommunications, Lighting, Power supply*

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## 1. 适用范围 / Scope of Application

AMPFORT SPV 太阳能保护保险丝专门针对光伏 (PV) 系统、仪表、电力、通信、照明、电源供应等领域产品而设计。本小型保险丝系列 (10x38 mm) 可安全保护 PV (光伏) 模块和导体, 仪表、电力、通信、照明、电源供应器等电路板, 使其免受反向过电流的影响。

The Ampfort SPV Solar Protection Fuse series has been specifically designed for the protection of photovoltaic (PV) systems, Multimeters, Electricity, Telecommunications, Lighting, Power supply. This family of Midget style fuses (10 x 38 mm) can safely protect PV modules and conductors, circuit of Multimeters, Electricity, Telecommunications, Lighting, Power supply from reverse overcurrent conditions.

随着光电 (PV) 系统应用规模的扩大, 其对应的电压要求也提高了。系统电压增大通常都是为了最大限度地减少与导线过长有关的能耗。标准电路保护装置的设计并不能完全保护光伏板。但是, AMPFORT SPV 系列却能够在这种严苛的电压电平条件下安全地断开故障电路。

As PV systems have grown in size, so have the corresponding voltage requirements. This increase in system voltage has typically been intended to minimize power loss associated with long conductor runs. Standard circuit protection devices are not designed to completely protect photovoltaic panels. However, the AMPFORT SPV series is to safely interrupt faulted circuits up to this demanding voltage level.

安伏特 AMPFORT 提供多种额定电流, 满足不同应用的具体要求。

AMPFORT offers more than 14 ampere ratings to match specific requirements in a variety of applications.

## 2. 功能与特色 / Features/Benefits

### 2.1 符合 UL 和 IEC 光伏规格的设计要求 / Meets UL, IEC and VDE photovoltaic standards

遵循 UL 2579 认证标准要求, 最大直流电压可达 1000VDC / Based on UL 2579, 1000 VDC maximum

额定电流范围: 0.5-120 A / 0.5-120 A ratings available

额定分断电流: 1,000-30,000 A / 1,000-30,000 A Interrupting Rating

可提供保险丝夹子和多管位导轨式保险丝座两种安装选择 / Both Fuse Clips and Multi-Pole Holders Assembly Kit installation options are available

## 2.2 目录编号 Catalogue No., A=250V, C=500V, D=600V, E=690V, K =1000V

目录编号 Catalog No.	额定电流 Ampere Rating	额定电压 Voltage Rating	分断能力 Breaking Capacity
SPV1050 A/C/D/E/K	500mA	250-1000V	1-30KA@1000VDC
SPV1100 A/C/D/E/K	1A	250-1000V	1-30KA@1000VDC
SPV1200 A/C/D/E/K	2A	250-1000V	1-30KA@1000VDC
SPV1300 A/C/D/E/K	3A	250-1000V	1-30KA@1000VDC
SPV1350 A/C/D/E/K	3.5A	250-1000V	1-30KA@1000VDC
SPV1400 A/C/D/E/K	4A	250-1000V	1-30KA@1000VDC
SPV1500 A/C/D/E/K	5A	250-1000V	1-30KA@1000VDC
SPV1600 A/C/D/E/K	6A	250-1000V	1-30KA@1000VDC
SPV1800 A/C/D/E/K	8A	250-1000V	1-30KA@1000VDC
SPV2100 A/C/D/E/K	10A	250-1000V	1-30KA@1000VDC
SPV2120 A/C/D/E/K	12A	250-1000V	1-30KA@1000VDC
SPV2150 A/C/D/E/K	15A	250-1000V	1-30KA@1000VDC
SPV2160 A/C/D/E/K	16A	250-1000V	1-30KA@1000VDC
SPV2200 A/C/D/E/K	20A	250-1000V	1-30KA@1000VDC
SPV2250 A/C/D/E/K	25A	250-1000V	1-30KA@1000VDC
SPV2300 A/C/D/E/K	30A	250-1000V	1-30KA@1000VDC
SPV2320 A/C/D/E/K	32A	250-1000V	1-30KA@1000VDC
SPV2400 A/C/D/E/K	40A	250-1000V	1-30KA@1000VDC
SPV2500 A/C/D/E/K	50A	250-1000V	1-30KA@1000VDC
SPV2600 A/C/D/E/K	60A	250-1000V	1-30KA@1000VDC
SPV2800 A/C/D/E/K	80A	250-1000V	1-30KA@1000VDC
SPV3100 A/C/D/E/K	100A	250-1000V	1-30KA@1000VDC
SPV3120 A/C/D/E/K	120A	250-1000V	1-30KA@1000VDC

## 3. 产品标示 / Product Marking

保险丝管体上需有下列标示。 / The fuses body shall have the following markings.

示例 Example:

<b>AFT</b>	<b>10A</b>	<b>250V</b>	<b>30KA</b>	<b>SPV 1100A</b>	<b>Made in China</b>
①	②	③	④	⑤	⑥

①	制造厂商标识/AMPFORT Trade Mark:
②	额定电流/Rated Current (A): ___A
③	额定电压/Rated Voltage (V): <b>250V</b>
④	分断能力/ Interrupting Rating : <b>30KA</b>
⑤	系列型号名称/Series Type Name: <b>SPV ___A</b>
⑥	原产地/Product Origin: <b>Made in China</b>

**注意 / Note:** 对于标示的大小和位置没有规定。

*Size and position of the markings shall not be provided.*

#### 4. 外观及形状 / Appearances and Configuration

4.1 外观不应出现显著的污点、裂纹，标识应该容易辨识。

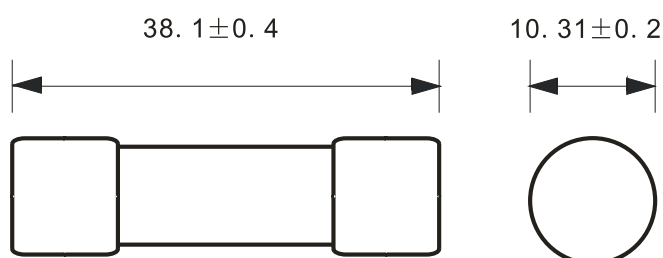
There shall not be any remarkable stain and crack on the appearances, markings shall be easily legible.

4.2 形状：小型陶瓷管保险丝。

Configuration: Miniature Ceramic Tube Fuse.

#### 5. 结构及尺寸 / Dimensions and Structure

单位：毫米 / Unit: mm



## 6. 材料明细 / Material Details

编号 NO.	零件名称 Part Name	材质 Material
①	铜帽 Cap	铜合金 Copper Alloy
②	陶瓷管 Body	陶瓷 Non-Transparent Ceramic Tube
③	熔丝 Fuse element	合金 Alloy
④	灭弧剂 Arc extinguishing agents	防爆硅砂 Silica

## 7. 电气特性 / Electrical Characteristics

### 7.1 熔断时限 / Operating Characteristics

参照标准 As per Agency standards	额定电流的% % of Ampere Rating(In)	熔断时间 Blowing Time
UL	100%* In	大于 4 小时(1 hours Min)
IEC	113%* In	大于 1 小时(1 hours Min)
UL	135%* In	小于 1 小时(1 hour Max)
IEC	145%* In	小于 1 小时(1 hour Max)
UL	200%* In	小于 4 分钟(4 minutes Max)

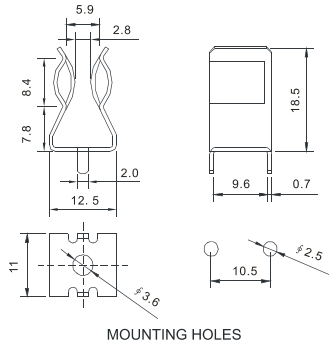
## 8. 安装建议 / Installation Recommendations

8.1 建议按照如下示意图方式进行安装。

Propose installation way as following picture.

A、 保险丝夹子安装 / Fuse clips installation

**A: PCB Mount Fuse clips**

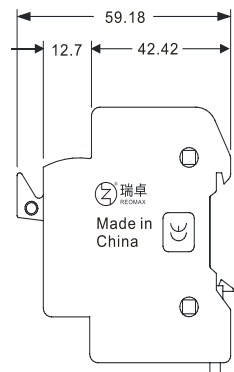
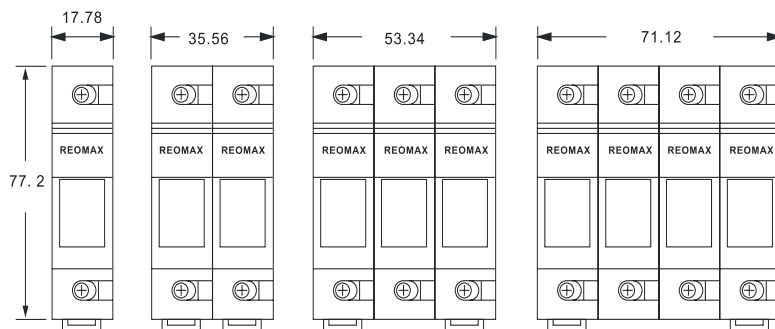


**Mounting**  
PC Board, 10.5mm pin spacing  
**Materials**  
Spring Brass  
**Unit Weight**  
3g  
**Packaging**  
Bulk (500pcs)  
**Spec. Number**  
Ni plated  
bright Sn plated



B、 导轨式保险丝座安装(1/2/3/4 管位) / Multi-Pole Holders Assembly Kit(1/2/3/4 pole)

**B: Multi-Pole Holders Assembly Kit**



**9. 包装 / Packaging**

9.1 包装袋/盒印明下列标示: / The following items indicated on the label:

产品料号、额定(电压、电流)、分断类型及安规名称。

Catalog number, ratings (voltage, current), interrupting type and safety mark.

包装材料均符合 RoHS/REACH/HF 的环保要求，且包装材料不会和零件发生化学反应，造成不良。

The packing material conforms to ROHS/REACH/HF environmental protection request. And the packing materials will not have the chemical reaction with the components.

## 9.2 包装数量 / Packing Quantity

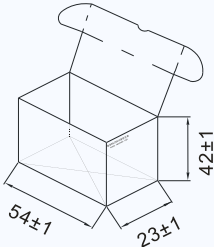
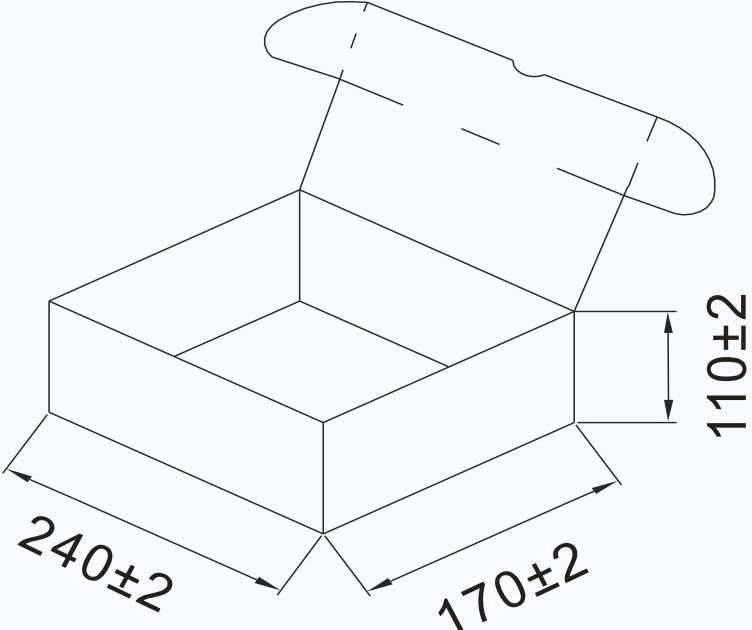
每胶袋 10 个保险丝 / Bulk 10 pcs in per poly bag;

每盒 1 胶袋 1 个内盒 / 1 poly bags in per inner box;

18 个内盒 1 个外箱(每层 6 盒, 共三层) / 18 inner boxes in per outer carton(6 \* 3 levels)

## 9.3 包装箱尺寸 / Packing Size

单位: 毫米 / Unit: mm

A. Inner box:	B. Outer carton:
L54±1 * W23±1 * H42±1	L240±2 * W170±2 * H110±2
	

## 10. 其他 / Others

10.1 如果在使用中有超出本规格书的要求, 须经双方协商确认。

In the event that an impropriety is found beyond this specification, it shall be fixed by mutual agreement between the parties.

10.2 如果本规格书有不适当的情况, 须通过双方协商并由本公司修改。

In the event that an impropriety is found in this specification, AMPFORT ELECTRONICS CO., LTD. shall amend it by mutual agreement between the parties.