

# 电涌保护器 SPD

Surge Protective Device

## 信号传输用电涌保护器 SPD for Signal Network



- 监控摄像头 Surveillance Camera
- POE设备 POE Equipment
- 交换机 Switch
- 控制系统接口 Control System Interface
- 现场仪表 Instrument

## 电涌保护器 SPD

Surge Protective Device

## 术语 Glossary

项目 Item	定义 Description
$U_c$	<p><b>最大持续工作电压 Maximum Continuous Operating Voltage</b> 可连续地施加在SPD上的最大直流电压或者交流电压有效值。 Maximum voltage (d.c. or r.m.s.) which may be continuously applied to the SPD's mode of protection</p> <p>— (IEC 61643-21)</p>
8/20 $\mu$ s	<p><b>8/20 <math>\mu</math>s 冲击电流 Current Impulse</b> 视在波前时间为8<math>\mu</math>s，半峰值时间为20<math>\mu</math>s的冲击电流。 Current impulse with a nominal virtual front time of 8 <math>\mu</math>s and a nominal time to half-value of 20 <math>\mu</math>s</p> <p>— (IEC 61643-21)</p>
$I_n$	<p><b>标称放电电流 Nominal Discharge Current</b> 流过SPD具有8/20波形电流的峰值。 Crest value of the current through the SPD having a current waveshape of 8/20</p> <p>— (IEC 61643-21)</p>
$I_L$	<p><b>额定电流 Rated Current</b> 不改变限流器件的情况下，允许通过SPD的最大电流。 Maximum current a current-limiting SPD can conduct continuously with no change in the impedance of the current-limiting components</p> <p>— (IEC 61643-21)</p>
$U_p$	<p><b>电压保护水平 Voltage Protection Level</b> 一种SPD在限制其两端电压方面的性能的参数；这个电压值大于脉冲限制电压的最高测量值，是由制造商指定。 Parameter that characterizes the performance of the SPD in limiting the voltage across its terminals. This value of voltage is greater than the highest measured value of impulse-limiting voltage and is specified by the manufacturer</p> <p>— (IEC 61643-21)</p>
IP	<p><b>外壳防护等级 (IP 代码) Degrees of Protection Provided by Enclosure (IP Code)</b> 外壳提供的防止触及危险的部件、防止外部的固体异物进入和/或防止水的进入壳内的防护程度。 Classification preceded by the symbol IP indicating the extent of protection provided by an enclosure against access to hazardous parts, against ingress of solid foreign objects and possibly harmful ingress of water</p>

# 电涌保护器 SPD

Surge Protective Device



**注意**  
**ATTENTION**

## 使用方法 Usage

1. 持续施加在SPD上的电压不应超过其最大连续工作电压 $U_c$ 。  
The voltage applied continuously to the SPD can not exceed its maximum continuous operating voltage  $U_c$ .
2. 气压在80 kPa 到106 kPa, 对应海拔为+2000 m至- 500 m。  
When atmosphere press is from 80 kPa to 106 kPa, the related altitude shall be from +2000 m to-500 m.
3. 通电情况下请勿直接触碰本体或引脚, 防止触电。  
Do not touch the product body or pins directly when power is on, to avoid electric shock.

## 更换 Replacement

基于安全原因, 电涌保护器是不可修复的产品, 替换时应使用同类别同型号的产品。  
SPD is a non-repairable product. For safety sake, please use equivalent SPD for replacement.

## 存贮 Storage

电涌保护器的贮存应避免高温、高湿、日光直射和腐蚀性气体的场合, 避免引线氧化。产品购入后请于2年内使用。  
Please store the SPD without high temperature, high humidity or corrosive gas. To avoid oxidation of the lead wires, please use them up within 2 years after receiving the goods.

# 电涌保护器 SPD

Surge Protective Device

## 安装 Installation

1. 仅专业电气人员可进行相关安装和调试。必须遵守相关国家的法规。  
Installation and startup may only be carried out by qualified personnel. The relevant country-specific regulations must be observed.
2. 安装前请务必检查设备是否有外部破损。如设备有缺陷，则不得使用。  
Check the device for external damage before installation. If the device is defective, it must not be used.
3. 注意触电危险。请在安装使用前断开电源。  
Pay attention to risk of electric shock. Please cutoff all electrical power before installation or service.
4. 连接至电涌保护装置（SPD）的输出电缆应尽可能短，避免形成回路。  
Lay the output cables to the surge protective devices (SPDs) as short as possible, without loops.
5. 安装过程和安装后不宜对电涌保护器本体施加机械应力。  
Do not apply mechanical stress to the SPD body during or after the installation.

## 维护 Maintenance

1. 每年在雷雨季节的前后根据说明检查SPD的状态。  
Check SPD status according to instructions before and after the thunderstorm season each year.
2. 电路通电前确保电气连接和安装正确。  
Ensure electrical connections and mountings are correct before energizing the circuit.
3. 产品在出厂前均经过严格的检验和质量控制，如发现工作异常，请及时与本公司联系  
SPD's quality is well controlled and strictly inspected before delivery. If non-functional ones are found during operation, please contact us early enough.

# 电涌保护器 SPD

Surge Protective Device

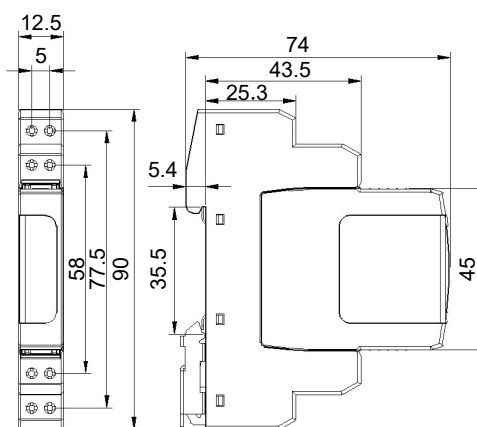
SSPA0K05B系列 Series



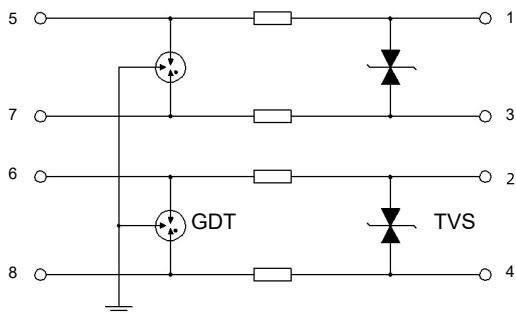
## 特性 Features

- 热插拔模块 Hot-plug Module
- 标准35mm导轨安装 DIN Rail 35 mm Installation
- 可插拔模块方便更换  
Pluggable Module for Easy Replacement
- 体积小 Small Size

## 尺寸 Dimensions



## 电路原理图 Schematics



技术特性 Features		技术参数 Specifications		
型号 Model		SSPA0K5BT05	SSPA0K5BT12	SSPA0K5BT24
标称系统电压 ( $U_n$ ) Nominal System Voltage		5 VDC	12 VDC	24 VDC
最大连续工作电压 ( $U_c$ ) Max. Continuous Operating Voltage		6 VDC	15 VDC	33 VDC
标称放电电流 ( $I_n$ ) Nominal Discharge Current (8/20 $\mu$ s)		5 kA	5 kA	5 kA
额定电流 ( $I_L$ ) Rated Current		1.0 A	1.0 A	1.0 A
电压保护水平 ( $U_p$ ) Voltage Protection Level	线对线 Line to Line @ In	$\leq 15$ V	$\leq 27$ V	$\leq 55$ V
	线对地 Line to PE @ In	$\leq 600$ V	$\leq 600$ V	$\leq 600$ V
截止频率 Cut-off frequency		10 MHz		
接线能力 Wiring Ability		(0.2 to 2.5) mm <sup>2</sup> (柔性 Flexible) / (0.2 to 0.4) mm <sup>2</sup> (刚性 Rigid)		
外壳防护等级 Degrees of Protection		IP20		
安装方式 Installation		35 mm 导轨 (DIN rail 35 mm)		
标准 Standard		IEC/EN 61643-21, GB/T 18802.21		
工作温度 Operational Temperature Range		(-40 to 85) °C		