

RES2 交流电源电涌保护器 (SPD II级)

RES2电涌保护器SPD 使用说明书

RES2-20系列、RES2-40系列、RES2-80系列



注意

- 使用产品前，请仔细阅读本说明书！
- 安装、调试和检查须由专业的电气工程师人员进行。
- 必须遵守相关的国家和地方法规和标准。
- 安装使用前务必检查和确认产品无外部破损，若有缺陷，不得使用！
- 请确认产品应用系统最大工作电压不超过产品最大允许值 U_c 。
- 请依照本说明书中推荐的接线铜缆要求，并可靠接地。
- 请采用本说明书中推荐的最大后备保护熔丝规格。
- 产品状态窗口颜色由绿色变为红色，请及时更换相同规格产品。
- 若基板损坏，须更换整个产品。

本公司对产品保留修改及说明书的变更权，如有更新，再另行通知。

町洋机电(中国)有限公司 DINKLE ELECTRIC MACHINERY (CHINA) CO., LTD.

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概述

RES2 系列交流电源 SPD 符合 IEC、GB 等标准测试规范，SPD II 级，2 类，能在电涌产生瞬间，将被保护线路接入等电位系统中，将电压限制在一定水平，起到保护用户用电设备的作用。

命名方式

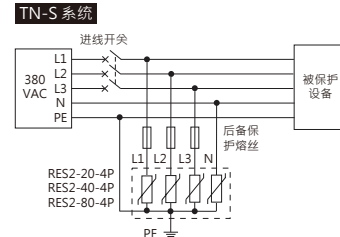
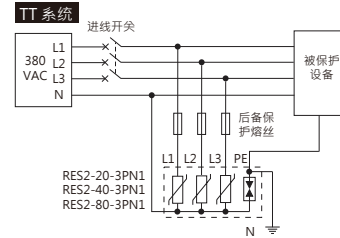
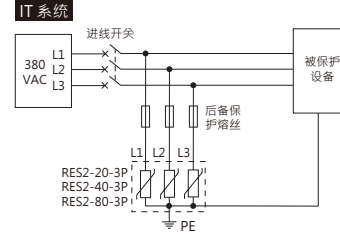
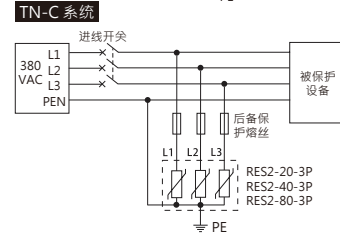
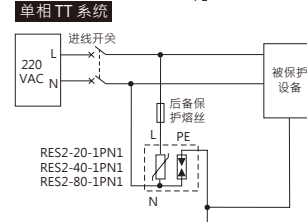
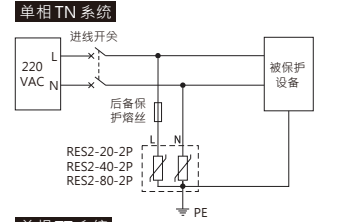


主要技术参数

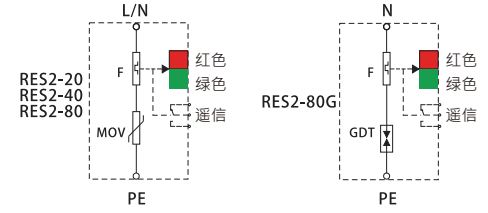
技术参数	产品型号	RES2-20	RES2-40	RES2-80	RES2-80G
额定工作电压 U_n		220V AC	220V AC	220V AC	-
最大工作电压 U_c		320V AC	385V AC	385V AC	255V AC
标称放电电流 $I_n(8/20\mu s)$		10kA	20kA	40kA	40kA
最大放电电流 $I_{max}(8/20\mu s)$		20kA	40kA	80kA	80kA
电压保护水平 U_p		1.2kV	1.7kV	2.0kV	1.2kV
响应时间		< 25ns	< 25ns	< 25ns	< 100ns
漏电流		< 20 μA	< 20 μA	< 20 μA	-
推荐后备保护熔丝		40A	80A	125A	-
链接导线截面积 L/N		$\geq 2.5mm^2$	$\geq 4mm^2$	$\geq 4mm^2$	$\geq 4mm^2$
链接导线截面积 P/E		$\geq 4mm^2$	$\geq 6mm^2$	$\geq 6mm^2$	$\geq 6mm^2$

状态指示: 绿色: 正常; 红色: 失效
工作温度: $-40^{\circ}C \sim +70^{\circ}C$
相对湿度: 5%~95%
外壳防护等级(IEC60529): IP 20
外壳材料/阻燃等级(UL94): PA66/V0
安装: DIN35mm标准导轨
测试标准: GB/T18802.1; IEC61643-11
保护类别: 用于电源的电涌保护器SPD II级, 2类
性能测试: 上海防雷产品测试中心
遥信报警输出: 250VAC/0.5A; 24VDC/0.5A

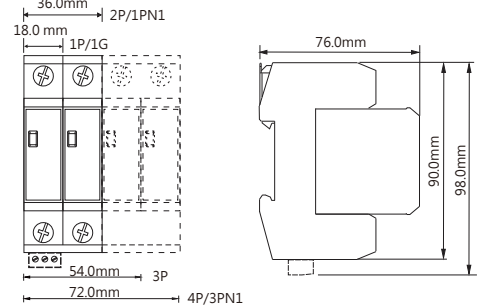
典型应用



电路原理图



外形尺寸



维护

- 1、检查SPD的状态指示窗口，若非全绿，则需更换SPD或者失效的电涌防护模块。
- 2、遥信端子可连接截面积 $\leq 1.5mm^2$ 的多股或单股铜导线，剥线长度为8mm，由螺钉锁紧。
- 3、上电前应检查线缆与接线端子之间的连接是否牢固，接地是否可靠。
- 4、产品出厂前经过严格检验和质量控制，如发现异常情况，请及时与本公司联系。
- 5、产品发货之日起五年内，正常使用过程中出现产品质量问题均由本公司免费维护。



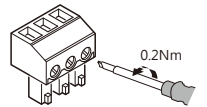
绿色: 正常



红色: 失效



遥信报警输出



0.14 mm² - 1.5mm²



RES2 Surge Protective Device for AC Power

RES2 Surge Protective Device User Manual

RES2-20Series、RES2-40Series、RES2-80Series



Caution

- Read this manual carefully before installation !
- Installation, adjustment and inspection must be carried out by professional electrical engineers !
- Must comply with relevant national and local regulations and standards.
- Be sure to check and confirm that the product has no external damage before installation. Do not use if there is external damage.
- Please confirm that the maximum operating voltage of the product application system does not exceed the maximum allowable value of the product, U_c .
- Please follow the recommended copper wire requirements in this manual, and reliable grounding.
- Please follow the recommended maximum backup fuse spec.
- Please replace the product with the same specifications in time as the color of the product status window changes from green to red.
- Please replace the whole product as the socket is damaged.

The company reserves the right to modify the product and change the specification. If there is any update, it will be notified separately.

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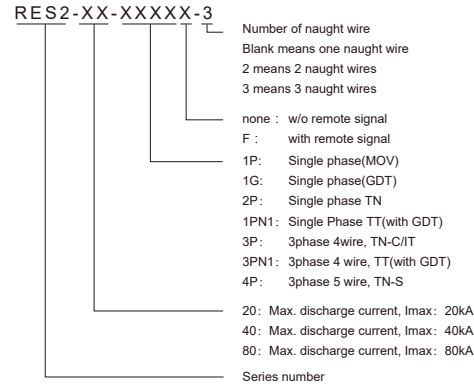
E-mail:service@dinkle.com



General

RES2 series AC power SPDs are designed according to the IEC and GB standards. It enable the connection between the power supply system and an equipotential network instantaneously when the surge occurs and limits the residual voltage to a certain level to protect the devices.

Nomenclature



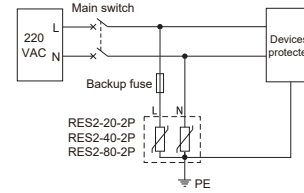
Main technical parameters

Parameter \ Model	RES2-20	RES2-40	RES2-80	RES2-80G
Nominal operating voltage U_n	220V AC	220V AC	220V AC	-
Max. operating voltage U_c	320V AC	385V AC	385V AC	255V AC
Nominal discharge cur. $I_n(8/20\mu s)$	10kA	20kA	40kA	40kA
Max. discharge cur. $I_n(8/20\mu s)$	20kA	40kA	80kA	80kA
Protection level U_p	1.2kV	1.7kV	2.0kV	1.2kV
Response time	< 25ns	< 25ns	< 25ns	< 100ns
Leakage current	< 20 μ A	< 20 μ A	< 20 μ A	-
Max. backup fuse	40A	80A	125A	-
Connection wire section area L/N	$\geq 2.5\text{mm}^2$	$\geq 4\text{mm}^2$	$\geq 4\text{mm}^2$	$\geq 4\text{mm}^2$
Connection wire section area PE	$\geq 4\text{mm}^2$	$\geq 6\text{mm}^2$	$\geq 6\text{mm}^2$	$\geq 6\text{mm}^2$

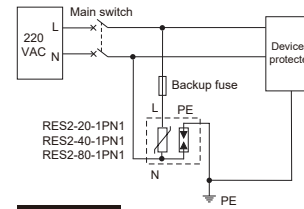
Status indicator : Green : OK ; Red : Failed
Working temperature : $-40^\circ\text{C} \sim +70^\circ\text{C}$
Relative humidity : 5%~95%
Housing protection level (IEC60529) : IP 20
Housing Material/flame-retarded level (UL94) : PA66/V0
Installation : Standard 35 mm DIN rail
Test Standards : GB/T18802.1 ; IEC61643-11
Protection level : Surge Protection level , class II for Power
Certificate Authority : Shanghai lighting protection center
Remote signal output : 250VAC/0.5A ; 24VDC/0.5A

Typical applications

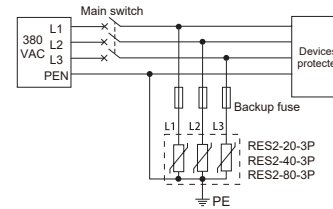
Single phase TN system



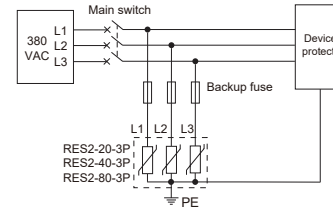
Single phase TT system



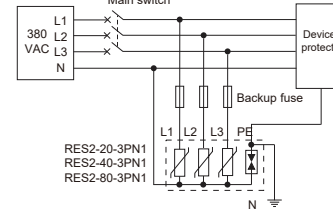
TN-C system



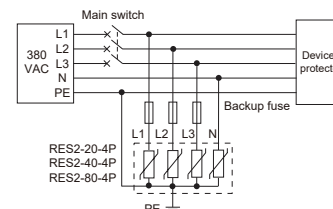
IT system



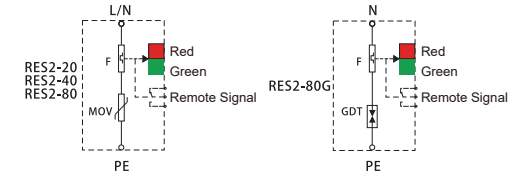
TT system



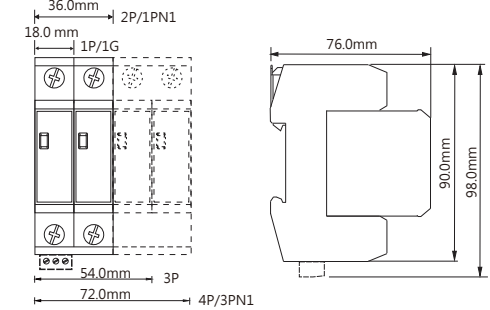
TN-S system



Schematic diagram



Dimensions



Maintenance

1. Check the status indicator and replace the failed module or whole product if the status indicator is not all green.
2. Connect the terminal blocks of remote signal with solid or stranded conductor. The conductor section area is small than 1.5mm² and strip length is between 6 and 7mm. Tightened by screw with 0.2 Nm torque.
3. Before Power on, Make sure the connection tightened firmly between conductors and terminal blocks and grounding is reliable.
4. The product undergoes rigorous inspection and quality control before leaving the factory. If abnormal conditions are found, please contact us.
5. 5 years guarantee from the date of delivery, free replacement of malfunction products.



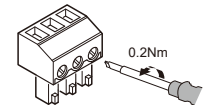
Green-OK



Red-failed



Remote Signal Output



0.14 mm² - 1.5mm²

