

# QR-SPD06A-IP20

Surge Protective Device 专业浪涌保护器制造商



| 绝缘等级<br>Insulation Class | 应用领域<br>Application field |     |     |      |
|--------------------------|---------------------------|-----|-----|------|
| 一类灯具 Class I             | TN                        | TNC | TNS | TNCS |
|                          | √                         | √   | √   | √    |

## 电性能参数 Electrical specifications

| 参数规格<br>Specifications                                  | 参数代码<br>Parameter | 参数值<br>Value  | 测试环境<br>Condition   |
|---|-------------------|---|---|
| 冲击类别<br>Classification                                  |                   | Class III   | Acc.IEC61643-11 GB18802.1-2011  |
| 保护模式<br>Protection mode                                 |                   | 差模 Diff.mode<br>共模 Comm.Mode  |   |
| 最大持续工作电压 (L-N)<br>Max.continuous operating voltage      | Uc (L-N)          | 275VAC  | 50-60 Hz  |
| 暂时过电压<br>Temporary overvoltage TOV                      | UT                | 337V  | LV system fault : 255V×1.32 at tt=5s , TN   |
| 暂时过电压<br>Temporary overvoltage TOV                      | UT                | 442V  | LV system fault : 255V×√3 at tt=120m , TN   |
| 电网类型<br>Power grids                                     |                   | TN  | Incl.all TN varieties TN-C, TN-C-S, TN-S  |
| 标称放电电流 (L-N)<br>Nominal discharge current               | In (L-N)          | 5kA (QR-SPD06A-10)<br>7.5kA (QR-SPD06A-15)<br>10kA (QR-SPD06A-20)   | @Uoc=10KV ; internal resistance=2Ω (QR-SPD06A-10)<br>@Uoc=15KV ; internal resistance=2Ω (QR-SPD06A-15)<br>@Uoc=20KV ; internal resistance=2Ω (QR-SPD06A-20) |
| 标称放电电流 (L-GND)<br>Nominal discharge current             | In (L-GND)        | 5kA (QR-SPD06A-10)<br>5kA (QR-SPD06A-15)<br>7.5kA (QR-SPD06A-20)  | @Uoc=10KV ; internal resistance=2Ω (QR-SPD06A-10)<br>@Uoc=10KV ; internal resistance=2Ω (QR-SPD06A-15)<br>@Uoc=15KV ; internal resistance=2Ω (QR-SPD06A-20) |
| 标称放电电流 (N-GND)<br>Nominal discharge current             | In (N-GND)        | 5kA (QR-SPD06A-10)<br>5kA (QR-SPD06A-15)<br>7.5kA (QR-SPD06A-20)  | @Uoc=10KV ; internal resistance=2Ω (QR-SPD06A-10)<br>@Uoc=10KV ; internal resistance=2Ω (QR-SPD06A-15)<br>@Uoc=15KV ; internal resistance=2Ω (QR-SPD06A-20) |
| 最大电压保护水平 (L-N)<br>Max. voltage protection level at In   | Up (L-N)          | 1.5kV   | @Uoc=10KV ; internal resistance=2Ω (QR-SPD06A-10)<br>@Uoc=15KV ; internal resistance=2Ω (QR-SPD06A-15)<br>@Uoc=20KV ; internal resistance=2Ω (QR-SPD06A-20) |
| 最大电压保护水平 (L-GND)<br>Max. voltage protection level at In | Up (L-GND)        | 2kV   | @Uoc=10KV ; internal resistance=2Ω (QR-SPD06A-10)<br>@Uoc=10KV ; internal resistance=2Ω (QR-SPD06A-15)<br>@Uoc=15KV ; internal resistance=2Ω (QR-SPD06A-20) |
| 最大电压保护水平 (N-GND)<br>Max. voltage protection level at In | Up (N-GND)        | 2kV   | @Uoc=10KV ; internal resistance=2Ω (QR-SPD06A-10)<br>@Uoc=10KV ; internal resistance=2Ω (QR-SPD06A-15)<br>@Uoc=15KV ; internal resistance=2Ω (QR-SPD06A-20) |
| 开路电压<br>Open-circuit voltage                            | Uoc               | 10kV(L-N)、10kV(L/N-PE) (QR-SPD06A-10)<br>15kV(L-N)、10kV(L/N-PE) (QR-SPD06A-15)<br>20kV(L-N)、15kV(L/N-PE) (QR-SPD06A-20) |   |
| 后备保险丝<br>Backup fuse                                    |                   | 16A   | max.gG fuse   |
| 失效指示<br>End of life indication                          |                   | yes   | 指示灯亮: 正常工作 / Optical , light ON:SPD Is functional.<br>指示灯灭: 产品失效 / Light OFF:SPD has reached end-of-life  |
| 最大对地漏电流<br>Max earth leakage current at Uc              |                   | 50μA  | Max.rms,to GND  |
| 寿命<br>Lifetime  |                   | 100,000hours  | 最大外壳温度下90%产品正常工作<br>Measured@Tcase-max with min 90% survival  |

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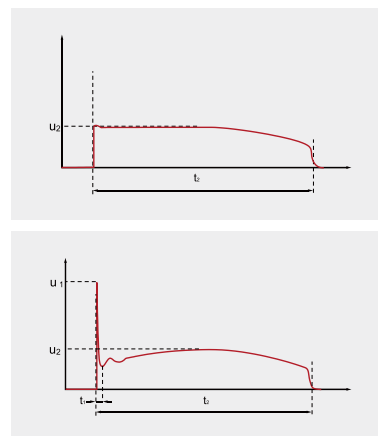
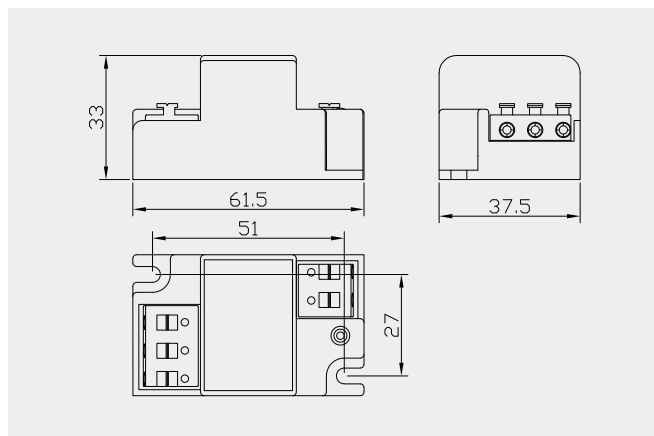
## 其它参数 Other specifications

| 参数规格<br>Specifications              | 参数值<br>Value | 产品型号<br>Model                                | 测试环境<br>Condition  |
|-------------------------------------|--------------|--|--|
| 抗冲击能力<br>Surge withstand capability | 1 strikes    | QR-SPD06A-10<br>QR-SPD06A-15<br>QR-SPD06A-20 | max. at 10KA<br>max. at 15KA (L-N) , max. at 10KA (LN-PE)<br>max. at 20KA (L-N) , max. at 15KA (LN-PE) |
|                                     | 20 strikes   | QR-SPD06A-15<br>QR-SPD06A-20                 | min. at 7.5KA (L-N)<br>min. at 10KA (L-N)  |
|                                     | 30 strikes   | QR-SPD06A-10<br>QR-SPD06A-15<br>QR-SPD06A-20 | min. at 5KA<br>min. at 5KA (L/N-PE)<br>min. at 7.5KA (L/N-PE)  |
|                                     | 50 strikes   | QR-SPD06A-10<br>QR-SPD06A-15<br>QR-SPD06A-20 | min. at 3KA (L-N, L/N-PE)<br>min. at 3KA (L-N, L/N-PE)<br>min. at 5KA (L-N, L/N-PE)                    |
| 额定电流<br>Nominal current             | 4A           |  | 额定负载电流 (50-60Hz)<br>Rated load current at 50 ... 60Hz  |
| 消耗功率<br>Power consumption           | 0.5W         |  | max. at $U_c=275VAC$ ; Load current=4A   |
| 适用灯具<br>Suitable for luminaires     | Class I      |  | 绝缘等级按照IEC60598<br>Insulation Class acc. IEC60598   |

## 电压保护水平 Protection levels up

| 产品型号<br>Model | 冲击电流<br>IC 8/20 $\mu$ s | 差模 U2<br>Differential mode U2 | 冲击电流<br>IC 8/20 $\mu$ s | 共模 U1/U2<br>Common mode U1/U2 |
|---------------|-------------------------|-------------------------------|-------------------------|-------------------------------|
| QR-SPD06A-10  | 5KA                     | $\leq 1500V$                  | 5KA                     | $\leq 2000V / 1000V$          |
| QR-SPD06A-15  | 7.5KA                   | $\leq 1500V$                  | 5KA                     | $\leq 2000V / 1000V$          |
| QR-SPD06A-20  | 10KA                    | $\leq 1500V$                  | 7.5KA                   | $\leq 2000V / 1000V$          |

## 产品外形 Environmental conditions



差模 L-N  
Differential mode L-N

共模  
L/N-ground, L+N-ground  
Common mode  
L/N-ground, L+N-ground

## 使用和储藏环境 Environmental conditions

| 参数规格<br>Specifications                | 参数值<br>Value         | 测试环境<br>Condition                         |
|---------------------------------------|----------------------|---|
| 环境温度 Ambient temperature              | -40...70 $^{\circ}C$ |   |
| 外壳表面温度 Tcase-max                      | 80 $^{\circ}C$       | 在温度测量点测量 Measured at Tc-point             |
| 储藏环境温度 Storage temperature            | -40...85 $^{\circ}C$ |   |
| 相对湿度 Relative humidity                | 5...95%              | 不结露 Non-condensing                        |
| 室外灯适用 Suitable for outdoor luminaires | yes                  | 室外需加防护 Outdoor with additional protection |