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|-----------------------------------------------------------------------------------------------------|---------------|------------------|
| <b>RXLG</b><br><b>梯型铝外壳电阻器</b><br><b>Trapezoidal Aluminum Housed</b><br><b>Fixed Power Resistor</b> | 文件编号          | YF-SE-02-23A/A01 |
|                                                                                                     | Document No.  |                  |
|                                                                                                     | 文件日期          | 2022-1-17        |
|                                                                                                     | Released Date |                  |
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#### ■ 产品特性 Feature

- 高负荷、散热特性、不燃性;  
High load, heat-sink performance, non-flame ;
- 高频特性好、抗脉冲性;  
Stable performance of high voltage, pulsing load;
- 符合环保要求 RoHS compliant, halogen free, lead free;
- 防护等级 INGRESS PROTECTION: IP53;

#### ■ 产品引用范围 Application

- – 家电/音响系统 Entertainment system;
- – 电源系统/充电设备 Power supply;
- – 工业/自动化行业 Industrial/automation system;
- – 变频控制/风电控制 VFD control/Wind-power system;

#### ■ 产品订货方式 Parts Number Explanation

|         |   |       |   |                 |   |            |              |
|---------|---|-------|---|-----------------|---|------------|--------------|
| RXLG    | - | 200W  | - | 100R            | - | J          | -            |
| 类型      |   | 功率    |   | 特性(可选)          |   | 阻值         |              |
| Product |   | Rated |   | Feature         |   | 误差         |              |
| Type    |   | Power |   | (Optional)      |   | Tolerance  |              |
|         |   | 40W   |   | N/A:Normal      |   | 0R47=0.47Ω | F:±1%        |
|         |   | 60W   |   | S:Small volume  |   | 2R7=2.7Ω   | G:±2%        |
|         |   | 80W   |   | L:Large volume  |   | 15R=15Ω    | J:±5%        |
|         |   | 100W  |   | N:Non-inductive |   | 510R=510Ω  | K:±10%       |
|         |   | ...   |   | ...             |   | 1K2=1.2KΩ  |              |
|         |   | 500W  |   |                 |   | 75K=75KΩ   |              |
|         |   |       |   |                 |   |            | Requirements |

#### ■ 环保申明 RoHS declaration

本产品符合 RoHS 2.0(2011/65/EU)环保要求。

The products meet the standards of RoHS 2.0(2011/65/EU).

#### ■ 参考标准 Reliability standard

|                             |                                  |
|-----------------------------|----------------------------------|
| 可焊性 Weldability Standard:   | IEC60068-2-20                    |
| 环境标准 Environrment Standard: | SJ/T 11363-2006, ROHS 2011/65/EU |
| 检验标准 QC standard:           | MIL-STD-105E, GB/T 2828.1-2003   |
| 产品性能 Performance:           | IEC60115-2008, GB/T5729-2003     |

|                                                                                                     |                       |                  |
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## ■ 标准产品规格 Standard electrical parameters

| 功率<br>Rated Power<br>At 70℃ | 阻值<br>Resistance<br>(Ω) | 最高使用电压<br>Max. Rating<br>Voltage(U <sub>R</sub> ) | 最高超载电压<br>Max. Overload<br>Voltage(U <sub>L</sub> ) | 绝缘电压<br>Insulation<br>Voltage(U <sub>N</sub> ) | 温度系数<br>T.C.R.<br>PPM/℃      | 工作温度<br>Operating<br>Temperature |
|-----------------------------|-------------------------|---------------------------------------------------|-----------------------------------------------------|------------------------------------------------|------------------------------|----------------------------------|
| P<100W                      | 0.1~200K                | 250V                                              | 550V                                                | 1500V                                          | ±100<br>±250<br>±350<br>±500 | -55℃<br>~<br>+275℃               |
| 100W                        | 0.1~200K                | 350V                                              | 750V                                                | 2000V                                          |                              |                                  |
| 120W                        | 0.1~100K                | 350V                                              | 750V                                                | 2000V                                          |                              |                                  |
| 150W                        | 0.1~10K                 | 500V                                              | 1000V                                               | 2000V                                          |                              |                                  |
| 200W                        | 0.1~10K                 | 500V                                              | 1000V                                               | 3000V                                          |                              |                                  |
| 300W                        | 0.1~10K                 | 750V                                              | 1200V                                               | 3000V                                          |                              |                                  |
| 400W                        | 0.1~10K                 | 750V                                              | 1200V                                               | 3000V                                          |                              |                                  |
| 500W                        | 0.1~10K                 | 750V                                              | 1200V                                               | 3000V                                          |                              |                                  |

### ● 额定电压 Rating Voltage:

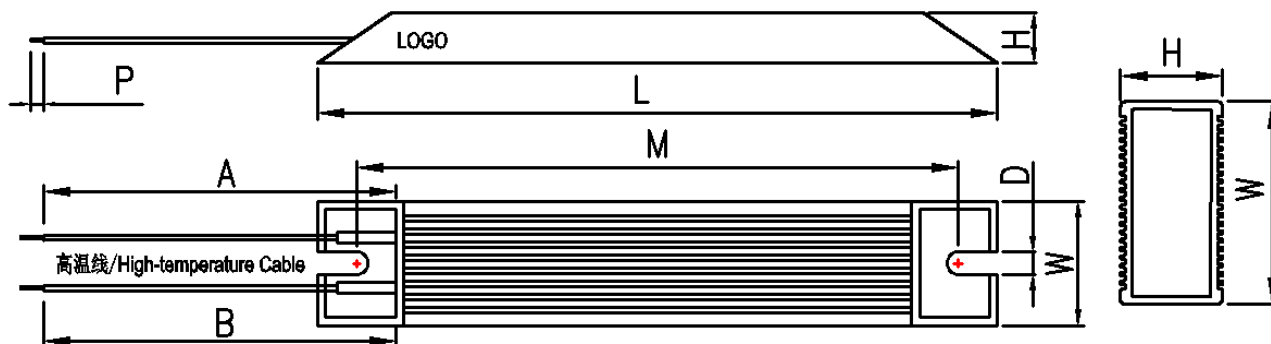
额定功率对应的额定电压,直流(DC)或交流电流(AC),可以采用如下公式计算。当计算的额定电压超过最高使用电压时,则使用最高使用电压为额定电压。

The following equation may be used to determine the DC(Direct Current) or AC(Alternating Current)(RMS, root mean square value) of normal rated power. However, if the result value exceeds the max. using voltage, the max. using voltage is to be used:

$$U_P = \sqrt{P \times R}$$

U<sub>P</sub>: 额定电压 Rating voltage (V)  
 P: 额定功率 Rating Power (W)  
 R: 电阻值 Resistance(Ω)

## ■ 产品尺寸 Type dimension



| 规格<br>Type | 尺寸 Dimension(mm) |       |       |       |       |       |     | 重量<br>(g) |
|------------|------------------|-------|-------|-------|-------|-------|-----|-----------|
|            | L±1.0            | W±0.5 | H±0.5 | M±1.0 | D±0.5 | A/B±5 | P±3 |           |
| 40W        | 90               | 40    | 15    | 75    | 5.5   | 200   | 5   | 100       |
| 60W        | 115              | 40    | 20    | 98    | 5.5   | 200   | 5   | 155       |
| 80W        | 140              | 40    | 20    | 123   | 5.5   | 200   | 5   | 190       |
| 100W       | 165              | 40    | 20    | 148   | 5.5   | 200   | 5   | 240       |
| 120W       | 190              | 40    | 20    | 173   | 5.5   | 300   | 5   | 270       |
| 150W       | 215              | 40    | 20    | 198   | 5.5   | 300   | 5   | 320       |
| 200W       | 165              | 60    | 30    | 150   | 5.5   | 300   | 5   | 480       |
| 300W       | 215              | 60    | 30    | 200   | 5.5   | 300   | 5   | 660       |
| 400W       | 265              | 60    | 30    | 250   | 5.5   | 300   | 5   | 780       |
| 500W       | 335              | 60    | 30    | 320   | 5.5   | 300   | 5   | 1150      |

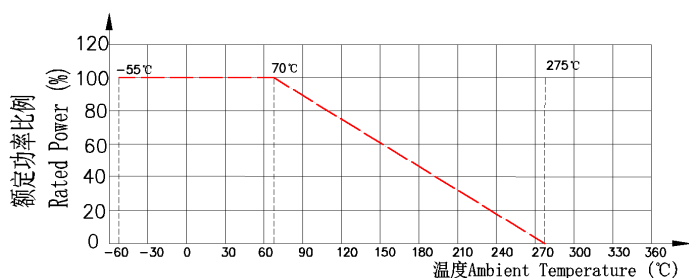
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## ■ 产品特性 Product parameter

### ● 额定功耗 Power Derating Curve:

额定功率是周围温度 70℃ 以下(推荐工作区域), 可连续使用的负载功率的最大数值, 且应使机械性能与电气性能满足。如周围温度超过 70℃ 时, 依照下图功率衰减曲线而定。

Rated power is the max using power under 70℃ and continuous duty. At the same time, the overload power is fit for mechanical properties and electrical properties. When the temperature is over 70℃, the power must be derated in accordance with the curve as below:



### ● 额定可靠特性 Product reliable performance:

| 测试项目<br>Test Item                        | 测试方法<br>Test Method | 测试方法<br>Procedure                                                                                                                                                                                                                                                     | 测试标准<br>Requirements         |       |      |     |      |                |       |       |       |       |                                |
|------------------------------------------|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|-------|------|-----|------|----------------|-------|-------|-------|-------|--------------------------------|
| 端子强度<br>Terminal robustness              | IEC60115-1 4.16     | 端子加载 20N 拉力，时间 10 秒；<br>Pressurizing force:17.7N, 10 seconds                                                                                                                                                                                                          | 无损伤 No damage                |       |      |     |      |                |       |       |       |       |                                |
| 本体强度<br>Body robustness                  | IEC60115-1 4.15     | 电阻体中间，加载 5N 的压力，时间 10 秒<br>Central part pressurizing force:5N, 10seconds                                                                                                                                                                                              | 无损伤 No damage                |       |      |     |      |                |       |       |       |       |                                |
| 耐振性 Vibration                            | IEC60115-1 4.22     | 10~55HZ/0.75mm/2H*3                                                                                                                                                                                                                                                   | 无损伤 No damage                |       |      |     |      |                |       |       |       |       |                                |
| 耐焊锡热<br>Soldering Heat                   | IEC60115-1 4.18     | 350±5℃，3S±0.5S                                                                                                                                                                                                                                                        | △R/R≤±0.5%                   |       |      |     |      |                |       |       |       |       |                                |
| 可焊锡性 Solderability                       | IEC60115-1 4.17     | 245±5℃，5±0.5S                                                                                                                                                                                                                                                         | ≥95%                         |       |      |     |      |                |       |       |       |       |                                |
| 温度系数<br>Temperature coefficient (T.C.R.) | IEC60115-1 4.8      | $T.C.R. = \frac{R - R_0}{R_0} \times \frac{1}{T - T_0} \times 10^6 \quad (PPM/^{\circ}C)$<br>R <sub>0</sub> :常温下(T <sub>0</sub> )的阻值<br>Resistance at room temperature(T <sub>0</sub> );<br>R: 测试温度(T=T <sub>0</sub> +100)的阻值<br>Resistance at T=T <sub>0</sub> +100; | 根据产品额定参数<br>Refer to Ratings |       |      |     |      |                |       |       |       |       |                                |
| 短时间过负载<br>Short Time Overload            | IEC60115-1 4.13     | Min( $\sqrt{10 \times W \times R}$ , U <sub>R</sub> ), 5s                                                                                                                                                                                                             | △R/R≤±2.0%                   |       |      |     |      |                |       |       |       |       |                                |
| 绝缘耐压<br>Voltage proof                    | IEC60115-1 4.7      | U <sub>N</sub> , 60S, I≤2mA.                                                                                                                                                                                                                                          | △R/R≤±1%                     |       |      |     |      |                |       |       |       |       |                                |
| 绝缘阻值<br>Insulation resistance            | IEC60115-1 4.6      | DC500V, R>100MΩ                                                                                                                                                                                                                                                       | △R/R≤±0.5%                   |       |      |     |      |                |       |       |       |       |                                |
| 耐久性 Endurance                            | IEC60115-1 4.25     | Min(U <sub>P</sub> , U <sub>R</sub> ), 1.5H- ON, 0.5H-OFF, 1000H                                                                                                                                                                                                      | △R/R≤±5%                     |       |      |     |      |                |       |       |       |       |                                |
| 高温存储<br>High Temp. Exposure              | IEC60115-1 4.23     | 125℃，80%， 500H                                                                                                                                                                                                                                                        | 无损伤 No damage                |       |      |     |      |                |       |       |       |       |                                |
| 温度循环<br>Temperature Cycle                | IEC60115-1 4.19     | 如下循环 Cycle Below: <table><tr><td>温度<br/>Temperature</td><td>25℃</td><td>125℃</td><td>25℃</td><td>-25℃</td></tr><tr><td>时间<br/>Duration</td><td>15min</td><td>15min</td><td>15min</td><td>15min</td></tr></table> 持续时间 Cycle Time:1000Hrs.                             | 温度<br>Temperature            | 25℃   | 125℃ | 25℃ | -25℃ | 时间<br>Duration | 15min | 15min | 15min | 15min | 无损坏<br>No damage<br>△R/R≤±0.5% |
| 温度<br>Temperature                        | 25℃                 | 125℃                                                                                                                                                                                                                                                                  | 25℃                          | -25℃  |      |     |      |                |       |       |       |       |                                |
| 时间<br>Duration                           | 15min               | 15min                                                                                                                                                                                                                                                                 | 15min                        | 15min |      |     |      |                |       |       |       |       |                                |
| 不燃特性<br>Noninflammability                | UL94-V0             | 16*U <sub>P</sub> ,5min                                                                                                                                                                                                                                               | 无燃烧现象 No flame               |       |      |     |      |                |       |       |       |       |                                |