

KNW 瓷管式可调电阻器 Tube Adjustable Resistor



本体颜色: Body Color

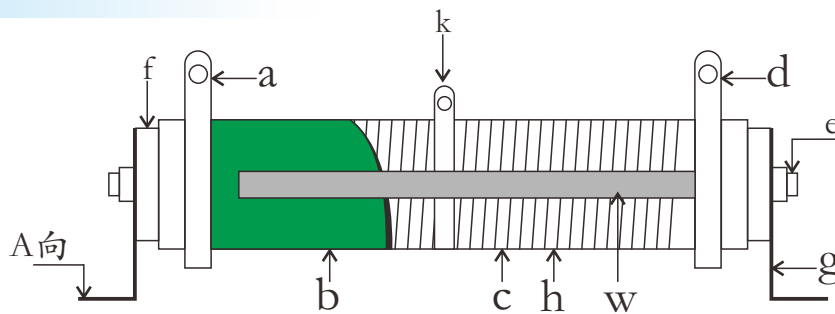
标准品: Standard (Green 绿色)

标示: Marking

(根据客户要求提供相应标识)

(According to the customer request to provide corresponding identification)

结构图 Construction



| adk | b | c | e | f | h | g | w |
|----------------|--|------------|-------------|----------------|-------------------|----------------------|--------------------------|
| 接线端子 | 耐高压绝缘陶瓷釉覆盖层 | 合金丝 | 螺杆 | 陶瓷垫片 | 高铝瓷管 | 镀锌支架 | 变阻区域 |
| Terminal block | High voltage insulation ceramic glaze covering | Alloy wire | Metal screw | Ceramic facing | Alumina porcelain | Zinc plating support | Variable resistance area |

特性 Feature

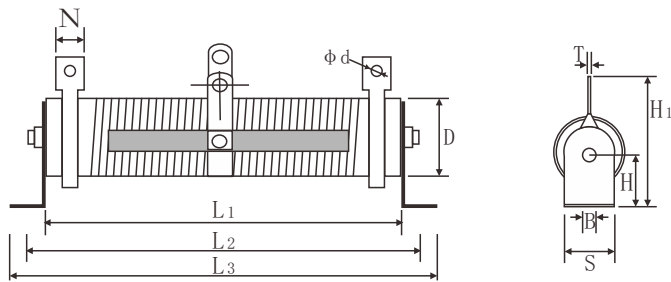
- I 电阻表面被漆, 功率范围较宽
Surface painted, wide power range
- II 优良的高温负荷性能
Excellent high temperature load performance
- III 全焊接结构
Full-welded structure
- IV 产品具有较高的可靠性
High reliability
- V 进口绿色或灰色涂料包封, 文字标志,
(可提供安装配件 (选购件))
Imported grey and green coating, character marking assembly and fittings (available)
- VI 精度范围: $\pm 5\%$ 、 $\pm 10\%$
Resistance tolerance: $\pm 5\%$ 、 $\pm 10\%$

参考规格 Reference Standards

JIS C 5201-1

KNW 瓷管式可调电阻器 Tube Adjustable Resistor

规格尺寸 Specifications and Dimensions



| 规格 Type | 功率 Power (W) | 外形尺寸 Dimensions (mm) | | | | | | | | | | |
|------------|--------------------|----------------------|--------|--------|-------|-------|-------|--------|-------|---------|-----------|---------|
| | | L1 ± 2 | L2 ± 5 | L3 ± 3 | D ± 2 | B ± 1 | H ± 1 | H1 ± 3 | S ± 2 | N ± 0.5 | φ d ± 0.5 | T ± 0.5 |
| KNW | 20 | 60 | 75 | 84 | 18 | 5.0 | 25 | 34 | 20 | 6 | 3.5 | 1.0 |
| KNW | 25 | 60 | 75 | 84 | 18 | 5.0 | 25 | 34 | 20 | 6 | 3.5 | 1.0 |
| KNW | 30 | 82 | 104 | 120 | 20 | 5.0 | 25 | 34 | 20 | 6 | 3.5 | 1.0 |
| KNW | 35 | 82 | 104 | 120 | 20 | 5.0 | 25 | 34 | 20 | 6 | 3.5 | 1.0 |
| KNW | 40 | 102 | 124 | 146 | 28 | 6.5 | 28 | 68 | 28 | 8 | 4.5 | 1.5 |
| KNW | 45 | 102 | 124 | 146 | 28 | 6.5 | 28 | 68 | 28 | 8 | 4.5 | 1.5 |
| KNW | 50 | 102 | 124 | 146 | 28 | 6.5 | 28 | 68 | 28 | 8 | 4.5 | 1.5 |
| KNW | 60 | 102 | 124 | 146 | 28 | 6.5 | 28 | 68 | 28 | 8 | 4.5 | 1.5 |
| KNW | 75 | 152 | 174 | 196 | 28 | 6.5 | 28 | 68 | 28 | 8 | 4.5 | 1.5 |
| KNW | 80 | 152 | 174 | 196 | 28 | 6.5 | 28 | 68 | 28 | 8 | 4.5 | 1.5 |
| KNW | 100 | 182 | 204 | 226 | 28 | 6.5 | 28 | 68 | 28 | 8 | 4.5 | 1.5 |
| KNW | 120 | 225 | 248 | 270 | 28 | 6.5 | 28 | 68 | 28 | 8 | 5.5 | 2.0 |
| KNW | 150 | 225 | 248 | 270 | 28 | 6.5 | 28 | 68 | 28 | 8 | 5.5 | 2.0 |
| KNW | 180 | 225 | 248 | 270 | 28 | 6.5 | 28 | 68 | 28 | 8 | 5.5 | 2.0 |
| KNW | 200 | 225 | 248 | 270 | 28 | 6.5 | 28 | 68 | 28 | 8 | 5.5 | 2.0 |
| KNW | 250 | 285 | 304 | 345 | 40 | 6.5 | 40 | 85 | 40 | 10 | 5.5 | 2.0 |
| KNW | 300 | 285 | 304 | 345 | 40 | 6.5 | 40 | 85 | 40 | 10 | 5.5 | 2.0 |
| KNW | 350 | 316 | 338 | 375 | 40 | 6.5 | 40 | 85 | 40 | 10 | 5.5 | 2.0 |
| KNW | 400 | 316 | 338 | 375 | 40 | 6.5 | 40 | 85 | 40 | 10 | 5.5 | 2.0 |
| KNW | 500 | 318 | 338 | 378 | 50 | 6.5 | 50 | 100 | 50 | 10 | 6.0 | 2.0 |

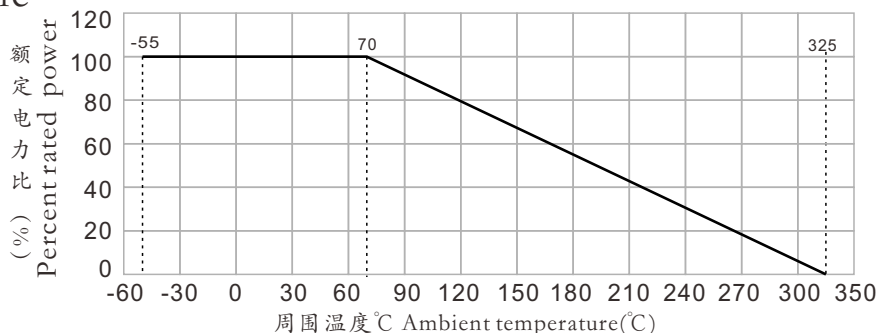
备注:具体规格尺寸可以根据客户的需求制作,同时也可以制作一管多个阻值,也可按客户要求安装固定支架。

Note: We can according customer requirements to customize the specification and dimension, also can product multiple resistance value of one ceramic tube or install the fixed plank.

可协议生产600W~8000W电阻。Our factory can also produce 600W~8000W non-standard resistors according to the requirement

额定温度下降曲线图 Derating Curve

例 Example



KNW 瓷管式可调电阻器 Tube Adjustable Resistor

● 功率、阻值范围与耐电压 Power And Resistance etc

| 规格 Type | 功率 Power(W) | 阻值范围 Resistance Range(Ω) | 误差值 Tolerance | 温度系数 T.C.R PPM/°C | 最高使用电压 Max Working Voltage (V) | 最高负荷电压 Max Overload Voltage (V) | 使用温度范围 Operating Temp.Range | |
|------------|----------------|--------------------------------|------------------|----------------------------------|--------------------------------------|---------------------------------------|-----------------------------------|------|
| KNW | 20 | 10Ω~510Ω | ±1% | -300PPM/°C ≤ TCR ≤ +300PPM/°C | $\sqrt{P \cdot R}$ | $\sqrt{10P \cdot R}$ | -55°C ~ 325°C | |
| KNW | 25 | 20Ω~1.2KΩ | | | | | | |
| KNW | 30 | 20Ω~1.5KΩ | | | | | | |
| KNW | 35 | 24Ω~2KΩ | | | | | | |
| KNW | 40 | 24Ω~2.7KΩ | | | | | | |
| KNW | 45 | 20Ω~4.3KΩ | | | | | | |
| KNW | 50 | 20Ω~4.3KΩ | | | | | | |
| KNW | 60 | 20Ω~4.3KΩ | | | | | | |
| KNW | 75 | 10Ω~5KΩ | | | | | | ±2% |
| KNW | 80 | 10Ω~5KΩ | | | | | | |
| KNW | 100 | 10Ω~5KΩ | | | | | | ±5% |
| KNW | 120 | 10Ω~5KΩ | | | | | | |
| KNW | 150 | 10Ω~5KΩ | | | | | | ±10% |
| KNW | 180 | 10Ω~5KΩ | | | | | | |
| KNW | 200 | 10Ω~5KΩ | | | | | | |
| KNW | 250 | 10Ω~5KΩ | | | | | | |
| KNW | 300 | 10Ω~5KΩ | | | | | | |
| KNW | 350 | 10Ω~5KΩ | | | | | | |
| KNW | 400 | 10Ω~5KΩ | | | | | | |
| KNW | 500 | 10Ω~5KΩ | | | | | | |

● 性能 Performance

| 试验项目 Test Items | 性能 Performance | 试验方法 Test Methods(JIS C 5201-1) |
|--------------------------------------|--|--|
| 温度系数 Temperature coefficient | -300PPM/°C ≤ TCR ≤ +300PPM/°C | 在常温及常温+100°C时分别测量电阻并计算每度的阻值变化率。 Test resistance value at normal temperature and normal temperature added 100°C, calculate °C resistance value change rate. |
| 短时间负荷 Short-time overload | $\Delta R \leq \pm(2\%R_0 + 0.05\Omega)$ | 施加10倍额定功率或最高负荷电压(取较小者)5秒。 According 10 times rated power to account the power or max. overload voltage(get the lower) for 5seconds. |
| 耐焊接热 Resistance to soldering heat | $\Delta R \leq \pm(1\%R_0 + 0.05\Omega)$ | 在350±10°C的锡炉中浸入2~3秒。 Immerge into the 350±10°C tin stove for 2~3 seconds |
| 可焊性 Solderability | 焊锡面积覆盖率95%以上 Tth soldering area is over 98% | 在245±3°C的锡炉中浸入2~3秒。 Immerge into the 245±3°C tin stove for 2~3 seconds |
| 温度循环 Temperature cycle | $\Delta R \leq \pm(2\%R_0 + 0.05\Omega)$ | 在-55°C时放置30分钟,然后在+25°C时放置10~15分钟,然后再在+155°C时放置 30分钟,然后在25°C时放置10~15分钟,共循环5次。At -55°C for 30min, then at +25°C for 10~15min, then at +155°C for 30min, then at +25°C for 10~5, min, total 5cycles. |
| 耐湿负荷寿命 Load life in humidity | $\Delta R \leq \pm(5\%R_0 + 0.1\Omega)$ | 在温度为40±2°C,相对湿度为90~95%的恒温恒湿箱中,施加额定电压或最大工 作电压(取较小者)共1000小时(通1.5小时,断0.5小时)。Overload rated voltage or Max.working voltage(get the lower) for 1000hours(1.5hours on and half-hour off) at the 40 ±2°C and 90~95% relative humidity. |
| 耐温负荷寿命 Load life in heat | $\Delta R \leq \pm(5\%R_0 + 0.05\Omega)$ | 在70±2°C恒温恒湿箱中施加额定电压或最大工作电压(取较小者)共1000小时 (通1.5小时,断0.5小时)。Overload rated voltage or Max.working voltage(get the lower) for 1000hours(1.5hours on and half-hour off) at the 70±2°C. |
| 不燃性 Nonflammability | 不可有明显火焰 No visible flame | 分别按5、10、16倍额定功率加交流负荷5分钟。 Respectively load AC voltage by 5,10,16 times rated power for 5 minutes. |

● 料号编号 Ordering Information

例 example

| | | | | |
|-------------------|---|-------------------------------|--|--|
| KNW | 300 | F | 10R00 | A |
| 产品名称 Product Name | 功率 Power | 精度 Tol | 阻值 Ohm | 特殊码 Special code |
| 瓷管式可调电阻器 | 20B=20W 50B=50W 100=100W 300=300W | F±1% G±2% J±5% K±10% | 0R100=0.1Ω 0R200=0.22Ω 10R00=10Ω 10K00=10KΩ | A1不带支架 A1 Without brackets A2带支架 A2 With brackets |