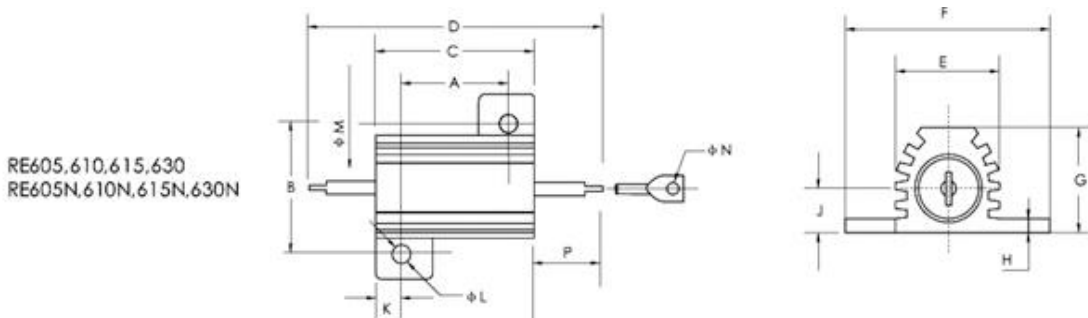


**Specification of high-power wire winding resistor**  
**POWER WIREWOUND RESISTORS SPECIFICATION**

Product type name: RX24

Product Model: 25W 1K5-4K 1%

**outline dimensional drawing**



TYPE	A	B	C	D	E	F	G	H	J	K	L	M	N	P
	+0.5	+0.5	+0.5	+0.5	+0.5	+0.5	+0.5	+0.5	+0.5	+0.5	+0.5	+0.5	+0.5	+0.5
25W	18	19.6	28	50	13.5	27	14	2.0	6.4	5	3.2	2.0	2	10.5

1 Scope of application of high power wire around the resistor

2 Model specification RX24-25W 1K5-4K 1%

3 The test state was conducted under normal atmospheric conditions

4 Rated power index

4.1 Use temperature range: -25°C - - + 155°C

4.2 Change in power



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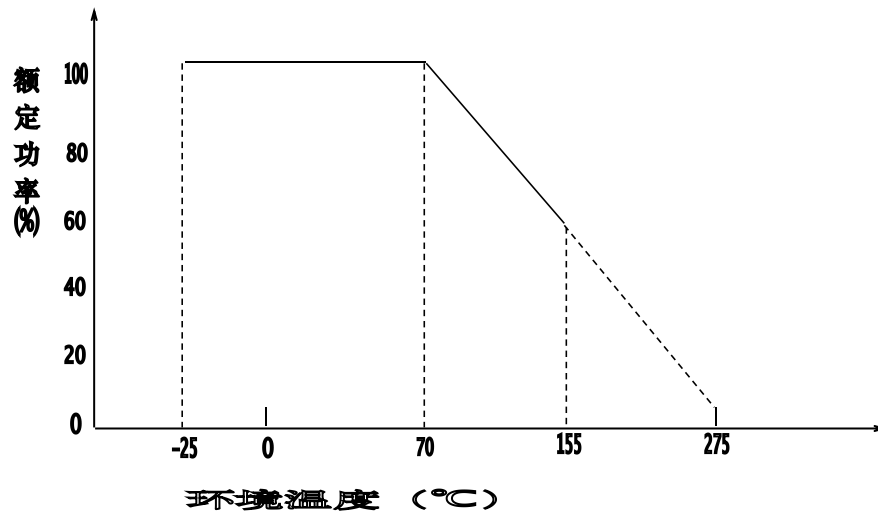
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The curve of the decreasing rated power with the surrounding temperature. See below

Power reduction curve diagram



### 4.3 Rated voltage

The rated voltage is determined by the following formula:

$$E = \sqrt{P \cdot R}$$

Note: E: Rated voltage (V)

P: Rated power (W)

R: Nominal resistance value of ( $\Omega$ )

### 5 Electrical performance

#### 5.1 The Temperature Coefficient

The temperature coefficient does not exceed  $\pm 350\text{PPM}/^\circ\text{C}$

$$\text{Temperature coefficient} = (R - R_0) \times 10^6 / R (t - t_0) \quad (\text{PPM}/^\circ\text{C})$$

$R_0$ : Stopped at room temperature

R: Test the temperature resistance value

t: room temperature

$t_0$ : Test temperature

#### 5.2 Short-term Overload

Pass 5 x rated voltage for 5 seconds, resistance change at  $\pm (2\%R + 0.1 \Omega)$ .

#### 5.3 Insulation resistance

The resistor is sandwiched in a recess of a  $90^\circ$  metal V-shaped block, measuring voltage current 500V and insulation resistance not less than  $500 \text{M}\Omega$ .

#### 5.4 Voltage resistance

The resistor is sandwiched in the concave place of a metal V-shaped block, the current current is 500V for 1 minute, and the resistor shall have no obvious breakdown or mechanical damage.

## 6 Mechanical performance

### 6.1 Lead end strength

With 20N tensile force, the resistance shape and internal structure are not significantly damaged.

### 6.2 Resistance

At 10-55HZ and 5mm amplitude uniform vibration for 3 hours, the shape structure has no visible damage.

### 6.3 Welding heat

Resistance lead immersion (A)  $260^{\circ}\text{C} \pm 5^{\circ}\text{C}$ ,  $10\text{s} \pm 1\text{ second}$  (B)  $350^{\circ}\text{C} \pm 5^{\circ}\text{C}$ ,  $3.5\text{s} \pm 0.5\text{s}$ , immersion depth away from the resistor  $3+0.05\text{mm}$ , resistance value changes within  $\pm (1\%R + 0.05 \Omega)$  without visible damage.

### 6.4 Welding

The surface is covered with a smooth and bright solder layer with continuous surface solder without concentrated pinhole, test solder temperature of  $235^{\circ}\text{C} \pm 5^{\circ}\text{C}$  and immersion time of  $2 \pm 0.5\text{ seconds}$ .The surface of resistance lead end is above 95%.

## 7 Resistant performance

### 7.1 Durability (Rated load)

At ambient temperature of  $70^{\circ}\text{C}$ , apply rated voltage for 1 hour and 0.5 hours.After 500 hours, there was no visible damage to the resistance appearance, and the resistance value changed within  $\pm (5\%R + 0.1 \Omega)$ .

### 7.2 Durability (wet load resistance)

In the relative temperature of 90-95%, the temperature of  $40^{\circ}\text{C}$  environment, through 1 / 10 rated power voltage for 500 hours, 1 hour through, 0.5 hours off.After 500 hours, the appearance of the resistor has no obvious damage, and the resistance value changed within  $\pm (5\%R + 0.1 \Omega)$ .

### 7.3 Rapid temperature change

The resistance is placed in  $-55^{\circ}\text{C}$  environment for half an hour, and then put into



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155°C environment for half an hour. After such 3 cycles, the resistance appearance has no obvious damage, and the resistance value changes within  $\pm (5\%R + 0.1 \Omega)$ .

#### 7.4 Wet resistance (fixed constant state)

In 40°C and humidity of 90–95%, meet the DC voltage 100V, resistance terminal to the positive, metal disc connected to the negative, 500 hours, the resistance value changes within  $\pm (5\%R + 0.1 \Omega)$ .

#### 7.5 Non-combustible characteristics

Use the normal open fire for 15 seconds, stop for 5 seconds, so that after 5 cycles, the resistor does not burst.

#### 8. Contact before the change

Change the materials, manufacturing engineering and management of the product, request the user for quality trust in advance and change before approval.

