

Product Specification

RX24 Golden Aluminum Housed Fixed Power Resistor	Document No.	YST-02-25/T00
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■Feature:

High load, heat-sink performance, non-flame ;
Stable performance of high voltage, pulsing load;
RoHS compliant, halogen free, lead free;
INGRESS PROTECTION: IP53 ;

■Application

- Entertainment system;
- Power supply;
- Industrial/automation system;
- VFD control/CNC equipment;
- New Energy control systems

■Parts Number Explanation

RX24	-	50W		-	100R	-	J	-	
		Rated					Tolerance		
Product		Power			Resistance				Packing
Type		10W					F:±1%		
		25W			0R47=0.47Ω		G:±2%		Requirements
		50W			2R7=2.7Ω		J:±5%		
		75W			15R= 15Ω		K:±10%		
		...			510R=510Ω				
		500W			1K2=1.2KΩ				
					75K=75KΩ				

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■ Standard voltage parameters

Rated Power At 70℃	Resistance (Ω)	Max. Rating Voltage(U _R)	Max. Overload Voltage(U _L)	Insulation Voltage(U _N)	T.C.R. PPM/℃	Operating Temperature
5W	0.1~500K	150V	250V	1000V	T20: ± 20 T50: ± 50 T100: ± 100 T200: ± 200 T350: ± 350 T500: ± 500	-55 ℃ ~ +275 ℃
10W	0.1~500K	150V	250V	1000V		
25W	0.1~500K	250V	350V	1000V		
50W	0.1~100K	250V	500V	1500V		
75W	0.1~100K	350V	500V	1500V		
100W	0.1~50K	350V	750V	1500V		
150W	0.1~10K	500V	750V	2000V		
200W	0.1~10K	500V	1000V	2000V		
300W~500W	0.1~10K	650V	1000V	2000V		

● Rating voltage:

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:

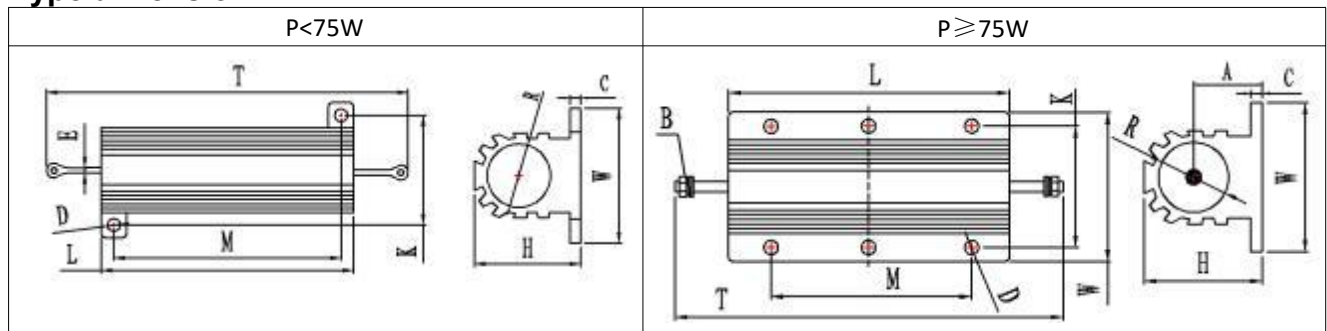
$$U_P = \sqrt{P \times R}$$

U_P: Rating voltage (V)

P: Rating Power (W)

R: Resistance(Ω)

■ Type dimension



Type	Dimension(mm)								
	L±1.0	W±0.5	H±0.5	M±1.0	K±1.0	D±0.5	T-max	C±0.5	B±0.5
5W	15.5	16	8.5	11.4	12.5	2.0*2	-	1.5	-
10W	20	21	10	14	16	2.5*2	-	2	-
25W	27	27	14	18.5	20	2.5*2	50	2	-
50W	50	29	15.5	40	22	3.5*2	73	2	-
75W	66	48	26	47	37	4.5*4	100	4.5	M4
100W	98	48	26	70	37	4.5*6	135	4.5	M4
150W	130	48	26	104	37	4.5*6	170	4.5	M4
200W	155	48	26	126	37	4.5*6	200	4.5	M4
200WS	92	73	45	70	58	5.5*6	150	5	M6
250W	112	73	45	90	58	5.5*6	170	5	M6
300W	130	73	45	102	58	5.5*6	185	5	M6
500W	204	73	45	174	58	5.5*6	260	5	M6

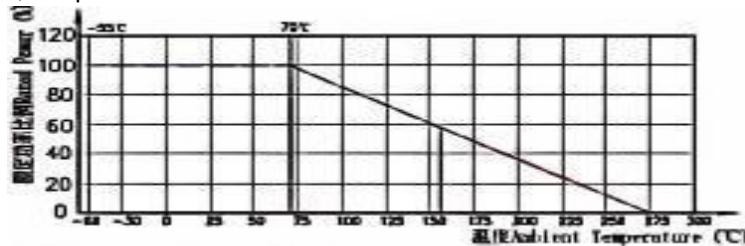
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■ Product performance

● Rating power:

● Power Derating Curve:

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:



● Product reliable performance

Test Item	Test Method	Procedure	Requirements										
Terminal robustness	IEC60115-1 4.16	Pressurizing force:20N, 10 seconds	No damage										
Body robustness	IEC60115-1 4.15	Central part pressurizing force:10N, 10seconds	No damage										
Vibration	IEC60115-1 4.22	10~55HZ/0.75mm/2H*3	No damage										
Soldering Heat	IEC60115-1 4.18	350±5℃, 3S±0.5S	△R/R≤±0.5%										
Solderability	IEC60115-1 4.17	245±5℃, 5±0.5S	≥95%										
Temperature coefficient (T.C.R.)	IEC60115-1 4.8	$T.C.R. = \frac{R - R_0}{R_0} \times \frac{1}{T - T_0} \times 10^6$ (PPM/℃) R ₀ Resistance at room temperature(T ₀); R: Resistance at T=T ₀ +100;	Refer to Ratings										
Short Time Overload	IEC60115-1 4.13	Min($\sqrt{5 \times P \times R}$, U _R), 5s	△R/R≤±2.0%										
Voltage proof	IEC60115-1 4.7	U _N , 60S, I≤2mA.	△R/R≤±1%										
Insulation resistance	IEC60115-1 4.6	DC500V, R>100MΩ	△R/R≤±0.5%										
Endurance	IEC60115-1 4.25	Min(U _P , U _R), 1.5H- ON, 0.5H-OFF, 1000H	△R/R≤±5%										
High Temp. Exposure	IEC60115-1 4.23	125℃, 80%, 500H	No damage										
Temperature Cycle	IEC60115-1 4.19	Cycle Below: <table><tr><td>Temperature</td><td>25℃</td><td>125℃</td><td>25℃</td><td>-25℃</td></tr><tr><td>Duration</td><td>15min</td><td>15min</td><td>15min</td><td>15min</td></tr></table> Cycle Time:1000Hrs.	Temperature	25℃	125℃	25℃	-25℃	Duration	15min	15min	15min	15min	No damage △R/R≤±0.5%
Temperature	25℃	125℃	25℃	-25℃									
Duration	15min	15min	15min	15min									
Noninflammability	UL94-V0	16*U _P , 5min	No flame										