

KNP-A series

WIRE WOUND RESISTORS, FLAMEPROOF, ANTI-BURST

防爆型繞線電阻器



Features

1. Fail-Safe without flames, explosion and arc when mains voltage 80~270V AC directly applied.
2. High Dielectric Withstanding Voltage up to 1KV.
3. Anti-Burst construction in a ceramic tube, resistant to humidity and insulation.
4. UL1412 approved.

特色

1. 主電源直接跨接時，不會產生火花、爆炸及電弧現象。
2. 耐電壓能力可達 1KV。
3. 防爆型套管包覆，具耐濕及絕緣特性。
4. UL1412 認證。

ELECTRICAL AND MECHANICAL PERFORMANCE

電氣及機械特性

特性 Characteristics	規格值 Standards	試驗方法 Test Methods
阻值容許誤差 Resistance Tolerance	$\pm 5\%$ (J)	-
溫度係數 Resistance Temp. Coeff.	$< 4500 \text{ ppm} / ^\circ\text{C}$	$-55^\circ\text{C} \sim 200^\circ\text{C}$
額定負載 Power Rating Load	Surface temp. 275°C Max. 最高表面溫度 275°C , $\Delta R/R \leq \pm 1\%$	Rated voltage for 30 minutes 額定電壓 / 30分鐘
短時間過負載 Short Time Overload	$\pm 2\%$	5 times of rated wattage for 5 seconds. 5 倍額定功率 / 5秒
耐電壓 Dielectric Withstanding Voltage	No evidence of mechanical damage or insulation breakdown. 無機械性能損壞及絕緣擊穿現象	AC 1000V for 1 minutes 施加 AC 1000V 電壓 1 分鐘。
絕緣電阻 Insulation Resistance	1,000M Ω	DC 500V megger
端子強度 Terminal Strength	No evidence of mechanical damage. 無機械性能損壞現象	1 kg
焊錫性 Solder-ability	Minimum 95% coverage 焊錫面積 $\geq 95\%$	$235 \pm 5^\circ\text{C}$ for 2 seconds
浸錫耐熱性 Resistance to Soldering Heat	No evidence of mechanical damage. 無機械性能損壞現象, $\Delta R/R \leq \pm 1\%$	$270 \pm 5^\circ\text{C}$ for 10 ± 1 seconds $350 \pm 10^\circ\text{C}$ for 3.5 ± 0.5 seconds

ENVIRONMENTAL CHARACTERISTICS

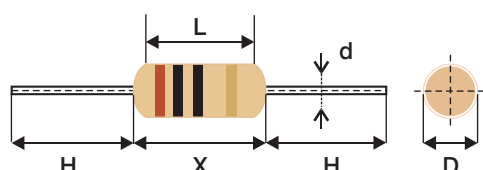
耐環境特性

特性 Characteristics	規格值 Standards	試驗方法 Test Methods
溫度週率 Temp. Cycle	$\Delta R/R \leq \pm 1\%$	-55°C (30 min.) \rightarrow Room Temp. (3 min.) $\rightarrow +200^\circ\text{C}$ (30 min.) \rightarrow Room Temp. (3 min.) / (5 cycles)
負載壽命 Load Life	$\Delta R/R \leq \pm 3\%$	Rated power load 90 minutes ON 30 minutes OFF 70°C 1000 hours
耐濕壽命 Moisture-proof Load Life	$\Delta R/R \leq \pm 3\%$	Rated power load 90 minutes ON 30 minutes OFF 40°C 95% RH 1000 hours
不燃性 Nonflammability	not flamed	16 times of rated wattage for 5 min.

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Dimensions

尺寸



Unit : mm

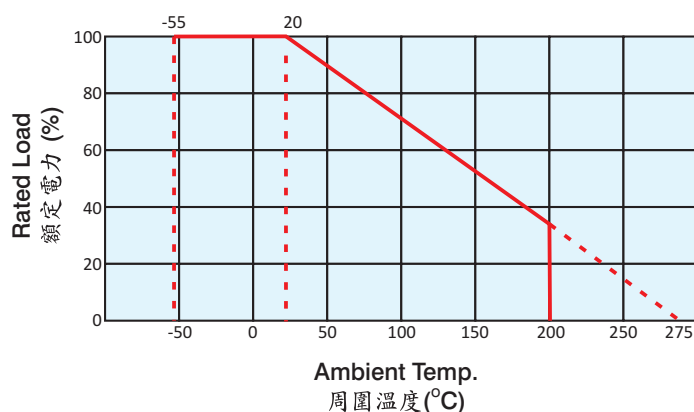
Rated Wattage	D ± 1	L ± 1	X Max.	H ± 3	d ± 0.1	Resistance Range(Ω)
1WS	4.5	6.5	9	28	0.65	1~47

Note: Too low or too high ohmic values can be supplied only case by case.

Derating Curve

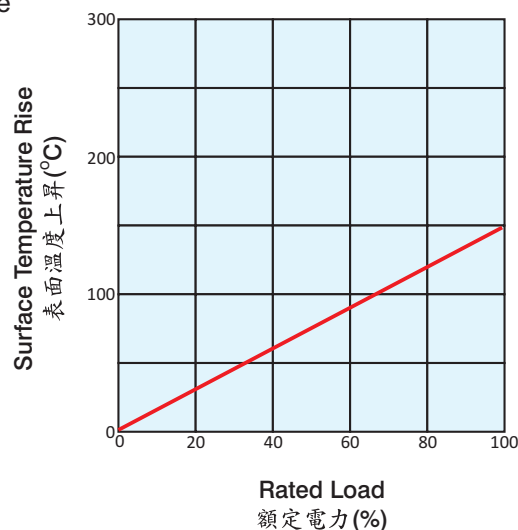
電力輕減曲線

For resistors operated in ambient temperatures above 20°C, power rating must be derated in accordance with the curve below.



Surface Temperature Rise

表面溫度上昇曲線



How to order

訂貨方式

It is composed by Type, Rated Wattage, Nominal Resistance, Tolerance, Anti-Burst and Package. e.g.

<u>KNP</u>	<u>1WS</u>	<u>10Ω</u>	<u>J</u>	<u>A</u>	<u>H2</u>	<u>T/B</u>
a.	b.	c.	d.	e.	f.	g.

a. : Type(種類): Wire Wound Resistors, Flameproof are called "KNP".

b. : Rated Wattage(額定電力) : Shown by "W", such as "1WS".

c. : Nominal Resistance(公稱電阻值) : 10 Ω .

d. : Tolerance(容許誤差): G = $\pm 2\%$, J = $\pm 5\%$.

e. : A : Letter "A" indicates anti-burst. ("A"表示防爆)

f. : H2 : Letter "H2" indicates special wire. ("H2"表示特殊線材)

g. : Package (包裝方式):

T/B=tape in box(帶裝); Nil=Bulk(散裝).