

HIGH POWER TYPE METAL CLAD WIRE-WOUND RESISTORS **KW / KWN**

High power metal clad wire-wound resistor sealed with non-combustible heat-resistant cement

Features:

- Tolerance upgraded up to ±1%
- Excellent short time overload characteristics
- Beautiful & hard anodized finish
- Non-inductive type as well as Inductive type available
- High heat dissipation with excellent long-term stability

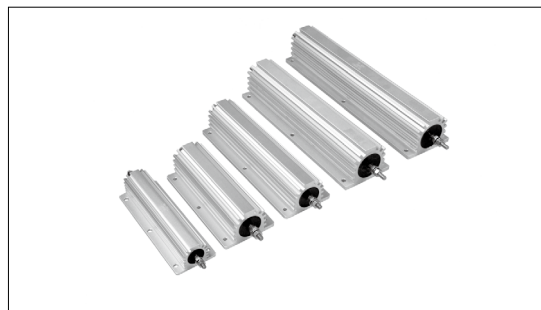
FIG.1

Type		Wattage Rating (W)		Resistance Range (Ω)		Resistance Tolerance (%)	MAX Working (V)		Dielectric Strength (V)	Operating Temp. (°C)	MAX Weight (g)
Inductive	Non-Inductive	Chassis Mounted	Free Air	Inductive (KW)	Non-Inductive (KWN)		KW	KWN			
KW-100	KWN100	100	50	0.9 ~ 3K	0.75 ~ 1.5K	±1 (F) ±5 (J) ±10 (K)	547	387	AC3000 AC4500 (Customized product on request)	-55~+200	250
KW-150	KWN150	150	70	1.3 ~ 4.7K	1.2 ~ 2.3K		839	587			350
KW-200	KWN200	200	90	2 ~ 7K	1.8 ~ 3.5K		1183	836			655
KW-300	KWN300	300	125	3 ~ 10K	3 ~ 5K		1732	1224			925
KW-400	KWN400	400	150	4.8 ~ 16K	4.5 ~ 8K		2000	1788			1650
KW-500	KWN500	500	200	5.9 ~ 18K	5.5 ~ 9K		2000	2000			1940

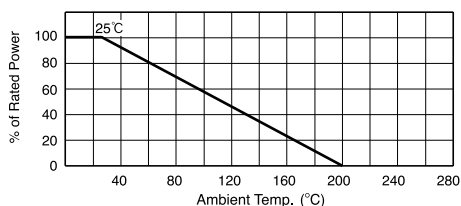
If any request on resistance value out of the standard resistance range, please contact us.

The smaller one among the two values below needs to be dealt as maximum working voltage.

Rated voltage = $\sqrt{\text{Rated power} \times \text{Nominal resistance value}}$ or the maximum working voltage specified in the table above.



Ambient Temp. Derating Curve



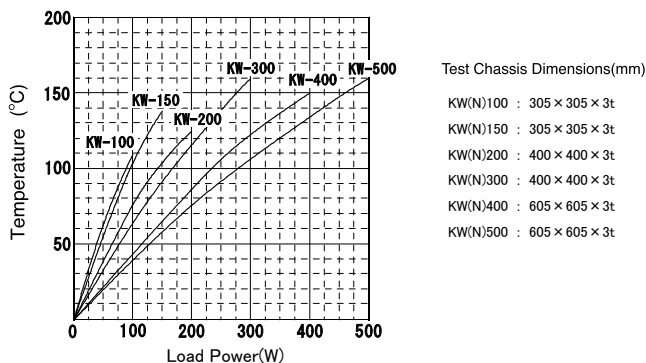
Temp. Coefficient

(Standard Temp. +25°C Test Temp. -55°C, +125°C, +200°C)

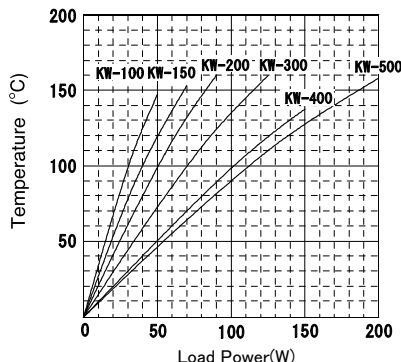
Type	Temp. Coefficient (ppm/°C)		
	±30	±50	±100
KW-100	899 Ω ≤ R	7.1 Ω ≤ R < 899 Ω	7.1 Ω > R
KW-150	1.4K Ω ≤ R	10.6 Ω ≤ R < 1.4K Ω	10.3 Ω > R
KW-200	2.1K Ω ≤ R	16 Ω ≤ R < 2.1K Ω	16 Ω > R
KW-300	2.8K Ω ≤ R	23.9 Ω ≤ R < 2.8K Ω	23.9 Ω > R
KW-400	4.9K Ω ≤ R	37.3 Ω ≤ R < 4.9K Ω	37.4 Ω > R
KW-500	5.9K Ω ≤ R	45.3 Ω ≤ R < 5.9K Ω	45.3 Ω > R

Type	Temp. Coefficient (ppm/°C)		
	±30	±50	±100
KWN100	450 Ω ≤ R	3.5 Ω ≤ R < 450 Ω	3.5 Ω > R
KWN150	700 Ω ≤ R	5 Ω ≤ R < 700 Ω	5 Ω > R
KWN200	1.05K Ω ≤ R	8 Ω ≤ R < 1.05K Ω	8 Ω > R
KWN300	1.4K Ω ≤ R	12 Ω ≤ R < 1.4K Ω	12 Ω > R
KWN400	2.45K Ω ≤ R	19 Ω ≤ R < 2.45K Ω	19 Ω > R
KWN500	2.95K Ω ≤ R	23 Ω ≤ R < 2.95K Ω	23 Ω > R

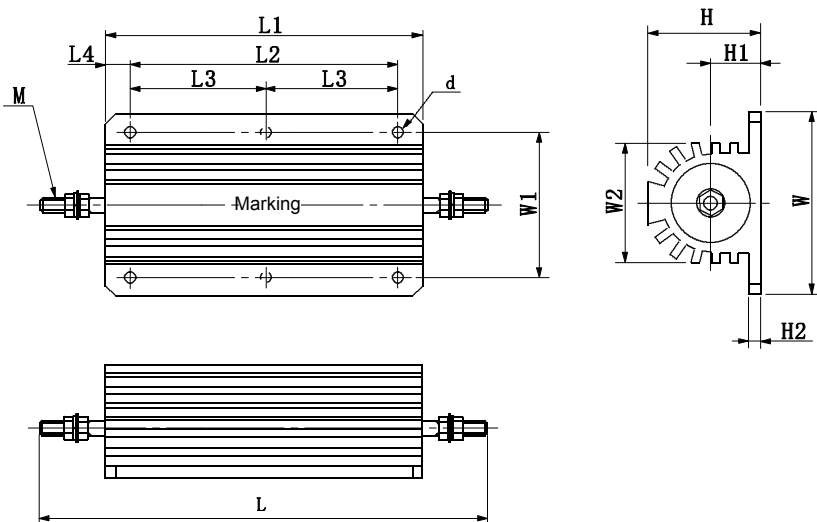
Surface Temp. Versus Power Load. (on chassis)



Surface Temp. Versus Power Load. (Free air)



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Type	Dimensions (mm)												
	L	L1±1	L2±0.8	L3±0.5	L4±0.8	W±0.8	W1±0.8	W2±1	H±0.8	H1±1	H2±0.5	d±0.3	M
KW-100	157	114	90	—	12	52	42	32	33	16	3.2	4.8	M5
KW-150	203	160	136	—	12	52	42	32	33	16	3.2	4.8	M5
KW-200	205	156	132	66	12	71.4	57.2	46	44.5	19.5	4.8	4.8	M6
KW-300	267	218	194	97	12	71.4	57.2	46	44.5	19.5	4.8	4.8	M6
KW-400	329	264	240	120	12	76.2	63.5	54	55.6	25.4	6.4	5.5	M6
KW-500	379	314	290	145	12	76.2	63.5	54	55.6	25.4	6.4	5.5	M6

Performance

Parameters	Test Condition	Specification
Terminal Strength	Torque Test (5~15 sec) KW-100/150 2.7N·m KW-200/300/400/500 3.6N·m	±(0.2%+0.05Ω)
Heat Resistance	200°C 2Hr	±(0.5%+0.05Ω)
Dielectric Strength	FIG.1 1min.	±(0.2%+0.05Ω)
Insulation Resistance	DC500V	1000MΩ以上
Short Time Over Load	5×Wattage Rating 5 sec	±(0.5%+0.05Ω)
Moisture Resistance	Temp. 40°C Moisture 95% 1/10×Wattage Rating (1.5Hr ON 0.5Hr OFF) Repeat 500Hr	±(0.5%+0.05Ω)
Load Life	Load Rating (chassis mounted) 1.5Hr ON 0.5Hr OFF Repeat 1000Hr	KW(N)100~KW(N)500 ±(3%+0.05Ω)
Vibration	10Hz - 55Hz - 10Hz(1 min) Horizontal and vertical direction for 2 Hr each	±(0.2%+0.05Ω)

About Pulsed Load Power

Please refer to "How to select a wire-wound resistor at a short time overload"(Document #PDB101-2-1f). It is available by sending us a request form on our website.

How to order

KW-100 100Ω F
 Type Resistance Tolerance

- Type: KWN for Non-inductive wire winding
- Standard Resistance E-24 Series J (±5%)
- Order for a single piece accepted for any resistance value within the standard resistance range

