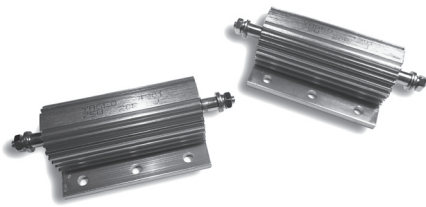


## Aluminum Housed Resistors

# High Power Wirewound Type

## Threaded & 6 Mounting Holes Style [ AHB Series ]



### INTRODUCTION

The AHB Series Aluminum Housed Resistors have crust surface with good performance in heat radiation, suitable for cooling plate installation, can be used in the atrocious environment.

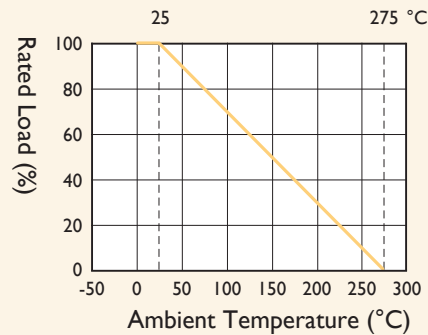
High insulating capacity, encapsulation by non-flame inorganic material, good performance in vibration.

### FEATURES

Power Rating	75W, 100W, 150W, 200W, 250W, 300W, 500W
Resistance Tolerance	$\pm 1\%$ , $\pm 2\%$ , $\pm 5\%$ , $\pm 10\%$
T.C.R.	$\pm 50\text{ppm}/^{\circ}\text{C}$ , $\pm 100\text{ppm}/^{\circ}\text{C}$

### DERATING CURVE

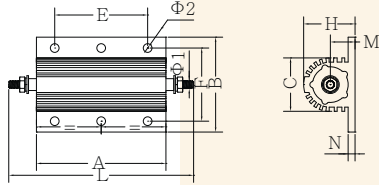
For resistors operated in ambient temperatures above 25°C, power rating must be derated in accordance with the curve below.



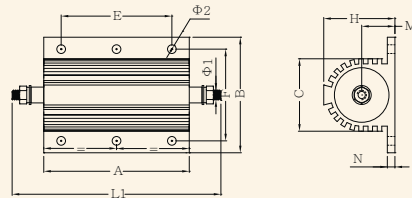
Unit: mm

### DIMENSIONS

AHB75A-AHB15B TYPES &amp; AHB25B-AHB50B TYPES



AHB20B TYPE



STYLE	DIMENSION										
Normal	A	B	L	H	C	E	F	M	N	ø1	ø2
AHB75A	65.5±2.0	48.0±2.0	93.5±3.0	26.0±1.0	27.0±1.5	47.0±2.0	37.0±1.5	13±1.5	3.5±0.5	M4	4.4±0.5
AHB10B	98.0±2.0	48.0±2.0	126±3.0	26.0±1.0	27.0±1.5	70.0±2.0	37.0±1.5	13±1.5	3.5±0.5	M4	4.4±0.5
AHB15B	130±2.0	48.0±2.0	158±3.0	26.0±1.0	27.0±1.5	104±2.0	37.0±1.5	13±1.5	3.5±0.5	M4	4.4±0.5
AHB20B	92.0±2.0	73.0±2.0	132±3.0	45.0±1.0	46.5±1.5	70.0±2.0	58.0±1.5	21.0±1.5	5.0±0.5	M6	5.5±0.5
AHB25B	112±2.0	73.0±2.0	152±3.0	45.0±1.0	46.5±1.5	90.0±2.0	58.0±1.5	21.0±1.5	5.0±0.5	M6	5.5±0.5
AHB30B	130±2.0	73.0±2.0	170±3.0	45.0±1.0	46.5±1.5	102±2.0	58.0±1.5	21.0±1.5	5.0±0.5	M6	5.5±0.5
AHB50B	204±2.0	73.0±2.0	244±3.0	45.0±1.0	46.5±1.5	174±2.0	58.0±1.5	21.0±1.5	5.0±0.5	M6	5.5±0.5

Note:

## ELECTRICAL CHARACTERISTICS

STYLE	AHB75A	AHB10B	AHB15B	AHB20B	AHB25B	AHB30B	AHB50B
Power Rating on std. heatsink at 25°C	75W	100W	150W	200W	250W	300W	500W
Power Rating without heatsink at 25°C	45W	50W	55W	50W	60W	75W	200W
Maximum Working Voltage (On std. heatsink)	1400V	1900V	2500V	1900V	2200V	2500V	
Voltage Proof on Insulation(Standard Type)	2000V			2500V			
Resistance Range	0.1Ω - 20KΩ	0.1Ω - 24KΩ	0.1Ω - 27KΩ	0.1Ω - 30KΩ	0.1Ω - 33KΩ	0.1Ω - 39KΩ	0.1Ω - 43KΩ
Operating Temp. Range	-55°C to +275°C						
Temperature Coefficient	±50ppm/°C, ±100ppm/°C						

Note: Special value is available on request

## SCREW FASTENING TORQUE STANDARD (FOR REFERENCE)

THREAD SPECIFICATION	M2	M4	M6	M8
Torque (Kgf.cm)	1.5	12	30	70
Tolerance	10%			

## ENVIRONMENTAL CHARACTERISTICS

PERFORMANCE TEST	TEST METHOD		APPRAISE
Short Time Overload	IEC 60115-1 4.13	5 times of rated power for 5 Sec.	±1.0%+0.05Ω
Voltage Proof on Insulation	IEC 60115-1 4.7	In V-Block for 60 sec., test voltage as above table	No Breakdown
Temperature Coefficient	IEC 60115-1 4.8	-55°C to +275°C	By type
Insulation Resistance	IEC 60115-1 4.6	in V-block for 60 Sec.	>100M
Solderability	IEC 60115-1 4.17	245±5°C for 3±0.5 Sec.	95% Min. coverage
Solvent Resistance of Marking	IEC 60115-1 4.30	IPA for 5±0.5 Min. with ultrasonic	No deterioration of coatings and markings
Robustness of Terminations	IEC 60115-1 4.16	Direct load for 10 Sec. in the direction of the terminal leads	≥40N
Periodic-pulse Overload	IEC 60115-1 4.39	4 times RCWV 10,000 cycles (1 Sec. on, 25 Sec. off)	±1.0%+0.05Ω
Damp Heat Steady State	IEC 60115-1 4.24	40±2°C, 90-95% RH for 56 days, loaded with 0.1 times RCWV	±5.0%+0.05Ω
Endurance at 70°C	IEC 60115-1 4.25	70±2°C at RCWV (or Umax., Whichever less) for 1,000 Hr. (1.5Hr: on, 0.5Hr: Off)	±5.0%+0.05Ω
Temperature Cycling	IEC 60115-1 4.19	-55°C ⇄ Room Temp. ⇄ +155°C ⇄ Room Temp. (5 cycles)	±1.0%+0.05Ω
Resistance to Soldering Heat	IEC 60115-1 4.18	260±3°C for 10±1 Sec., immersed to a point 3±0.5mm from the body	±1.0%+0.05Ω

Note: RCWV(Rated Continuous Working Voltage) =  $\sqrt{\text{Power Rating} \times \text{Resistance Value}}$  or Max. working voltage listed above, whichever less.

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