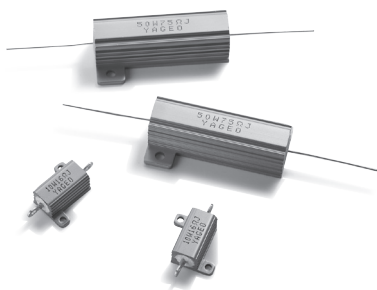


## Aluminum Housed Resistors

# Power Wirewound Type

Lug / Threaded Style [ AHA Series ]  
Straight Leadwire Style [ AHP Series ]

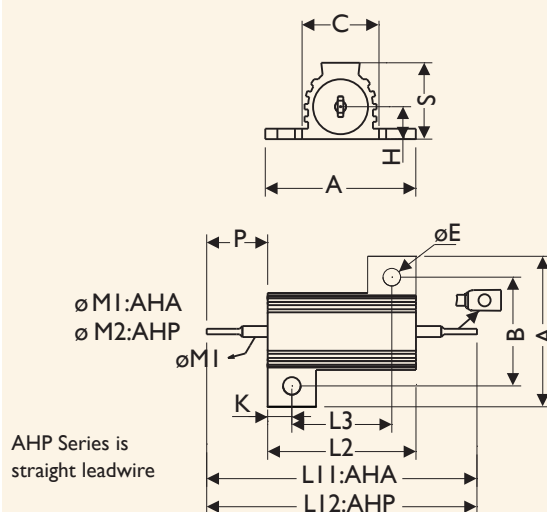


### FEATURES

Power Rating	5W, 10W, 25W, 50W
Resistance Tolerance	$\pm 1\%$ , $\pm 2\%$ , $\pm 5\%$ , $\pm 10\%$
T.C.R.	$\pm 50\text{ppm}/^{\circ}\text{C}$ , $\pm 100\text{ppm}/^{\circ}\text{C}$ , $\pm 200\text{ppm}/^{\circ}\text{C}$

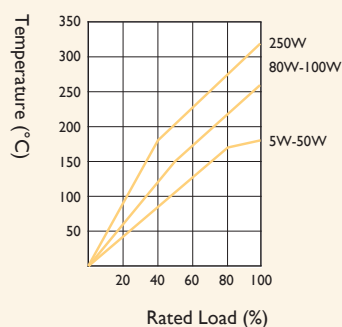
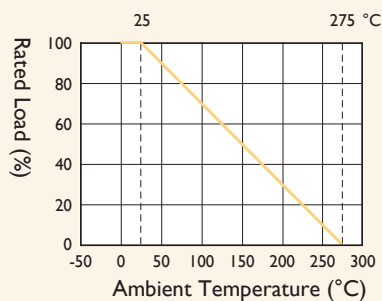
### DIMENSIONS

Unit: mm



STYLE	DIMENSION									
	L11	L12	L2	L3	A	B	C	$\phi E$	S	H
Normal										
AHA500/AHP500	28.6 $\pm$ 1.5	71.2 $\pm$ 1.5	15.2 $\pm$ 0.5	11.5 $\pm$ 0.5	16.4 $\pm$ 0.5	12.5 $\pm$ 0.5	8.5 $\pm$ 0.5	2.4 $\pm$ 0.3	8.1 $\pm$ 1.0	3.8 $\pm$ 1.0
AHA10A/AHP10A	34.9 $\pm$ 1.5	75.0 $\pm$ 1.5	19.0 $\pm$ 0.5	14.2 $\pm$ 0.5	20.3 $\pm$ 0.5	15.9 $\pm$ 0.5	10.7 $\pm$ 0.5	2.4 $\pm$ 0.3	9.9 $\pm$ 1.0	4.2 $\pm$ 1.0
AHA25A/AHP25A	49.2 $\pm$ 1.5	83.0 $\pm$ 1.5	27.0 $\pm$ 0.5	18.2 $\pm$ 0.5	27.4 $\pm$ 0.5	19.8 $\pm$ 0.5	14.0 $\pm$ 0.5	3.2 $\pm$ 0.3	13.9 $\pm$ 1.0	5.9 $\pm$ 1.0
AHA50A/AHP50A	70.6 $\pm$ 1.5	106 $\pm$ 1.5	50.0 $\pm$ 0.5	40.0 $\pm$ 0.5	29.0 $\pm$ 0.5	21.4 $\pm$ 0.5	16.0 $\pm$ 0.5	3.2 $\pm$ 0.3	15.5 $\pm$ 1.0	6.6 $\pm$ 1.0

## DERATING CURVE



## ELECTRICAL CHARACTERISTICS

STYLE	AHA500 AHP500	AHA10A AHP10A	AHA25A AHP25A	AHA50A AHP50A
Power Rating on std. heatsink at 25°C	5W	10W	25W	50W
Power Rating without heatsink at 25°C	3W	8W	12.5W	20W
Voltage Proof on Insulation	1,000V			1,000V
Resistance Range	0.1Ω - 1KΩ	0.1Ω - 1.5KΩ	0.1Ω - 5.1KΩ	0.1Ω - 15KΩ
Operating Temp. Range	-55°C to +275°C			
Temperature Coefficient	±50ppm/°C, ±100ppm/°C, ±200ppm/°C			

Note: Special value is available on request.

## 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 +250°C	By type
Insulation Resistance	IEC 60115-1 4.6	in V-block for 60 Sec.	>100MΩ
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	Pull test (30 Sec. Min): 5W: 1kg, 10W: 2.3kg, 25 - 50W: 4.5kg	±0.2%+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: Rated Continuous Working Voltage (RCWV) =  $\sqrt{\text{Power Rating} \times \text{Resistance Value}}$  or Max. working voltage listed above, whichever less.

Revision: 2020