

Approval Sheet

for

Aluminum Housed Power Wirewound Resistors

AHP & AHA series

**$\pm 0.25\%$ 、 $\pm 0.5\%$ 、 $\pm 1\%$
 $\pm 5\%$ & $\pm 10\%$**

YAGEO CORPORATION

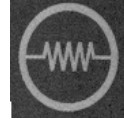
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**1. PRODUCT:**

High power rating, with small size and ultra precision.

(AHA & AHP SERIES)

2. PART NUMBER:

Part number of the cement resistor is identified by the name, power, tolerance, packing, temperature coefficient, special type and resistance value.

Example :

AHP	500	J	B	-	100R
(1)	(2)	(3)	(4)	(5)	(6)
Series	Power	Resistance	Packing	Temperature	Resistance
Name	Rating	Tolerance	Style	Coefficient	Value
					of Resistance

(1) Style : AHA SERIES: Lug/Threaded Terminals
AHP SERIES: Straight Leadwire Terminals

(2) Power Rating : 500=5W 、 10A=10W 、 25A=25W 、 50A=50W 、
80A=80W 、 10B=100W 、 25B=250W

(3) Tolerance : C = $\pm 0.25\%$ 、 D = $\pm 0.5\%$ 、 F = $\pm 1\%$ 、 J = $\pm 5\%$ 、 K = $\pm 10\%$

(4) Packaging Type : B = Bulk with wirewound or metal oxide

(5) Temperature Coefficient : 200ppm/ $^{\circ}$ C

(6) Resistance Value : E24 & E96 Series (for $\pm 1\%$)

Example : 0R1, 1R 、 10R 、 100R 、 10K.....



3. ELECTRICAL CHARACTERISTICS

STYLE	AHA500	AHA10A	AHA25A	AHA50A
	AHP500	AHP10A	AHP25A	AHP50A
Power Rating at 70 °C	5W	10W	25W	50W
Resistance range (Wirewound)	0R1~100R			
Resistance range (Metal Oxide Film)	110R~50K		110R~100K	
Operating Temp. Range	- 55 °C to + 250 °C			
Temperature Coefficient	± 200ppm/ °C			

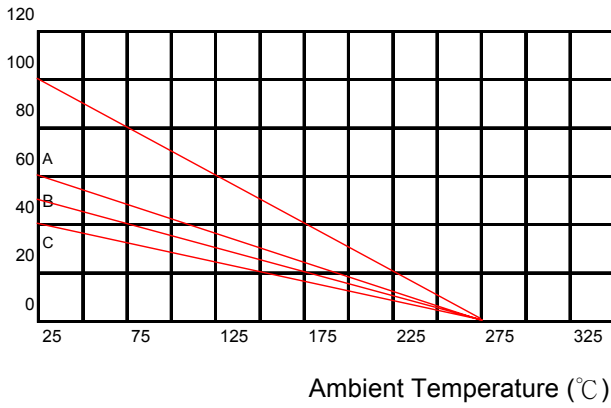
STYLE	AHA80A	AHA10B	AHA25B
Power Rating at 70 °C	80W	100W	250W
Resistance range (Tube Ceramic Wirewound)	0R1~3K		
Operating Temp. Range	- 55 °C to + 250 °C		
Temperature Coefficient	± 200ppm/ °C		

* Below or over this resistance range on request.

4. DERATING CURVE & TEMPERATURE RISE

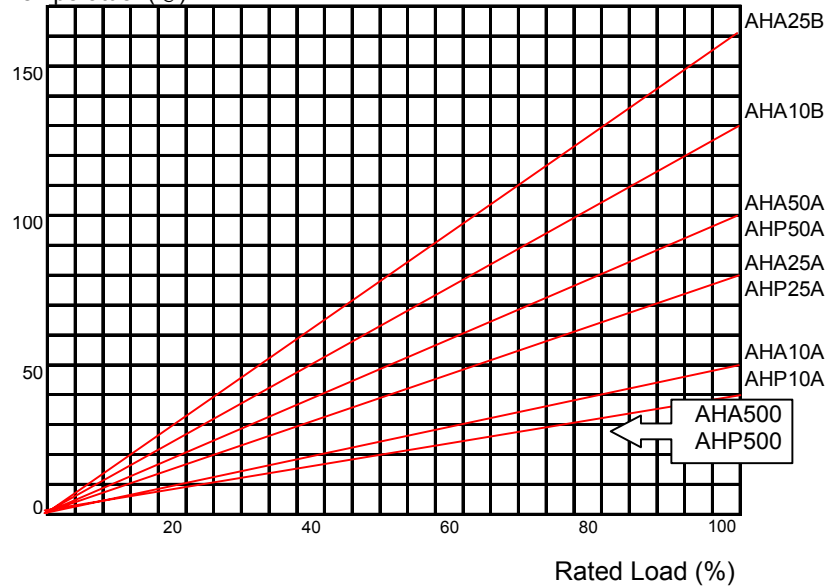
Derating Curve

Rated Load (%)

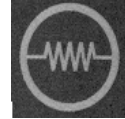


Temperature Rise

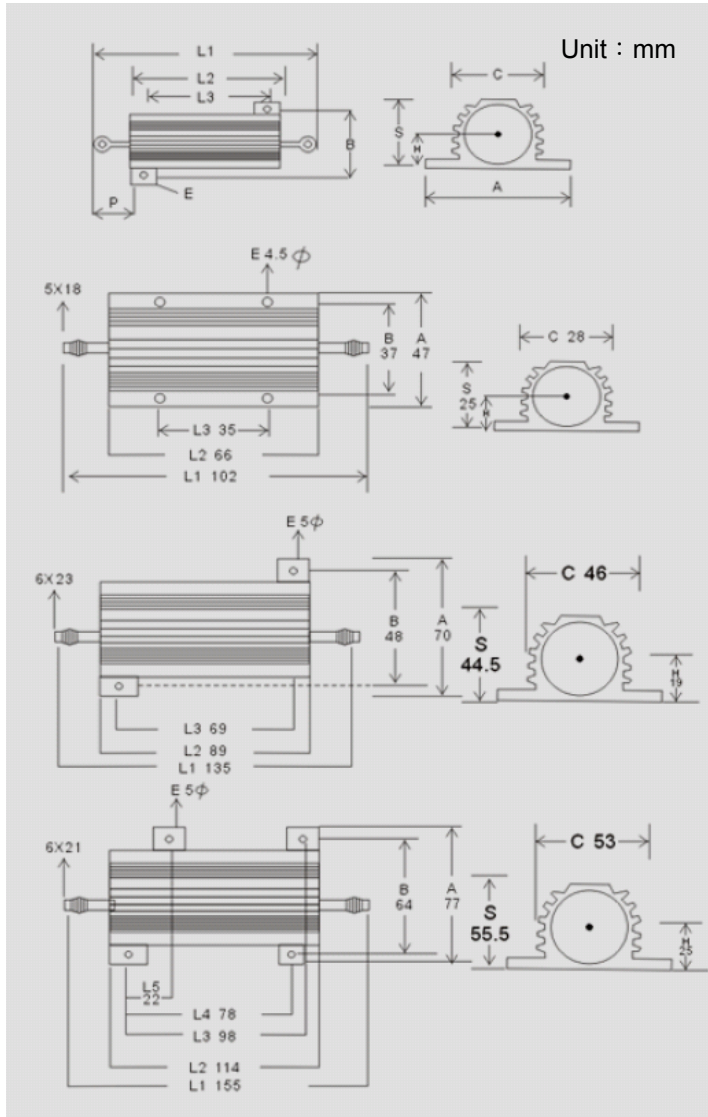
Temperature (°C)



Short-time Overload Rating												
Load Time (Second)	1	2	3	4	5	10	30	60	180	300	600	900
Power Increase (%)	2600	2000	1600	1400	1300	1000	600	450	200	150	120	110



5. DIMENSIONS



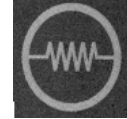
AHA500 AHP500
AHA10A AHP10A
AHA25A AHP25A
AHA50A AHP50A

AHA80A

AHA10B

AHA25B

Type	DIMENSIONS(mm)									
	L1±2	L2±1	L3±1	A±1	B±1	C±1	E±0.3	S±1	H±0.5	P±2
AHA500 AHP500	25	15	10	16.5	12.5	8.5	2	8	4	5
AHA10A AHP10A	32	19	14	20	15.5	10.5	2	10	5	6
AHA25A AHP25A	47	27	18	27	19	15	3.2	15.5	7	10
AHA50A AHP50A	70	50	39	29	21	15	3.2	15.5	7	10
AHA80A	102	66	35	47	37	28	4.5	25	12	5*18
AHA10B	135	89	69	70	58	46	5	44.5	19.5	6*23
AHA25B	155	114	98	77	64	53	5	55.5	25	6*21



6. ENVIRONMENTAL CHARACTERISTICS

Electrical Specification		
Characteristics	Limits	Test Methods
Resistance Tolerance	Resistance $1\Omega \leq R \pm 5\%$ (J) Resistance Tolerance $1\Omega \leq R \pm 10\%$ (K)	JIS-C-5202 5-1
Temperature Coefficient	± 200 ppm/ °C max.	JIS-C-5202 5-2b
Power Rating Load	$\Delta R/R \leq \pm(1\% + 0.05\Omega)$ Surface Temp. Rise 350°C max.	JIS-C-5202 5-4
Short-Time Overload	$\Delta R/R \leq \pm(2\% + 0.05\Omega)$ 100% Rated Power 5 Seconds	JIS-C-5202 5-5
Insulation Resistance	DC500V 100M Ω min	JIS-C-5202 5-6
Dielectric Withstanding Voltage	AC3000V 60Sec.	JIS-C-5202 5-7

Performance		
Parameters	Test Conditions	Specifications
Short time OverLoad	5X wattage rating-5sec	$\Delta R \pm (0.5\% + 0.05\Omega)$ MAX
Moisture Resistance	Temp 40°C moisture 95% DC100V 500HR	$\Delta R \pm (0.5\% + 0.05\Omega)$ MAX
Moisture Load Life	Temp 40°C moisture 95% 1/10X Wattage rating (1.5Hr ON-0.5Hr OFF)- Repeat 1000Hr	$\Delta R \pm (0.5\% + 0.05\Omega)$ MAX
Load Life	Load Rating(chass is mounted) (1.5Hr ON 0.5Hr OFF) -Repeat 1000Hr	$\Delta R \pm (1.5\% + 0.05\Omega)$ MAX
Vibration	10c/s~50c/s~10c/s(lmin)2Hr each of paralleled and right angle	$\Delta R \pm (0.2\% + 0.05\Omega)$ MAX
Heat Resistance	275°C 2Hr	$\Delta R \pm (0.5\% + 0.05\Omega)$ MAX
Dielectric Strength	1000V: AHA500, AHA10A, AHA25A (AHP500, AHP10A, AHP25A) 1500V: AHA50A (AHP50A) 2500V: AHA10B, AHA25B	$\Delta R \pm (0.2\% + 0.05\Omega)$ MAX
Insulation Resistance	Under the same test condition of Dielectric Strength, Load DC500v and measure the insulation R.	1000M Ω min
Terminal Strength	(1) Pull Test (30 sec Min) AHA500/AHP500: 1kg. AHA10A/AHP10A: 2.3kg. AHA25A/AHP25A, AHP50A/AHP50A: 4.5kg (2) Torque Test (5~15sec) AHA10B: 27kg-cm, AHA25B: 36Kg-cm	$\Delta R \pm (0.2\% + 0.05\Omega)$ MAX



7. Packing

Packing		
Power Rating	BOX(PCS)	CARTON(PCS)
5W	400	2400
10W	300	1800
25W	150	600
50W	100	600
80W	8	48
100W	10	60
250W	6	36

8. Plant Address

- A. Taiwan Xindian Plant
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Tel. 86-769-8772 0275
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- C. China MuDu Plant
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