

PRECISION POWER RESISTORS Aluminum Housed (Chassis Mount)

FEATURE:

- High power rating, small size and ultra precision
- Standard winding & non-inductive winding types.
- High stability, strong construction.

GENERAL SPEC:

Wattage Range: 6 styles to choose ranging from 5 to 250 watts.

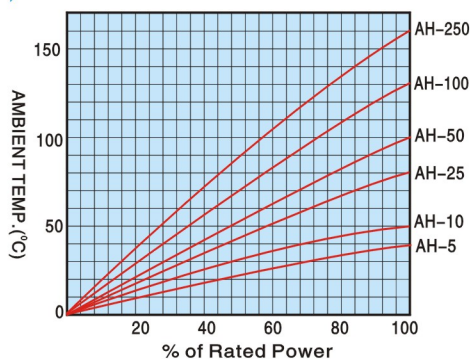
Resistance Tolerance: 10%, 5%, 3%, 2%, 1%, 0.5%

Operating Temperature Range: -55°C to +275°C

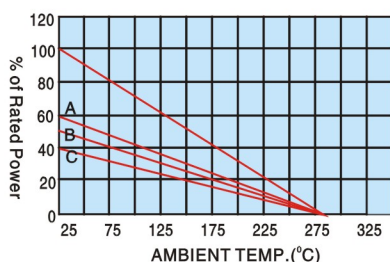
Dielectric Strength: AH-5 AH-10 AH-25 1000V AH-50 1500V AH-100 AH-250 2500V

Temperature Coefficient of Resistance: Standard T.C.: $\pm 30 \text{ PPM}/^\circ\text{C}$ and up, $\pm 50 \text{ PPM}/^\circ\text{C}$ = 1 to 9.99 Ω $\pm 90 \text{ PPM}/^\circ\text{C}$ = below 1 Ω

SURFACE TEMPERATURE VERSUS POWER LOAD (on Chassis)



DERATING



Derating & required to reduce chassis mounting area and/or high ambient temperatures. Curves A-S&10W, unmounted. B-25W, unmounted. C-50, 100 & 250W, unmounted.

HOW TO ORDER

AH50	20 Ω	D
Type	Resistance	Tolerance

	Resistance Tolerance
D	$\pm 0.5 \%$
F	$\pm 1 \%$
G	$\pm 2 \%$
H	$\pm 3 \%$
J	$\pm 5 \%$
K	$\pm 10 \%$



STANDARD ELECTRICAL SPEC.

Type	MIL Style	Wattage Rating	Resistance Range (Ω)	MAX Winding (V)	(g) MAX Weight	Proper heatsink (aluminum chassis)
AH-5	RE60	5	0.05 - 3k	120	70	3 152X102X51X1t
AH-10	RE65	10	0.02 - 6k	245	180	7 152X102X51X1t
AH-25	RE70	25	0.012 - 15k	500	300	15 178X127X51X1t
AH-50	RE75	50	0.01 - 40k	1300	500	33 305X305X1.5t
AH-100	RE77	100	0.4 - 50k	1900	1340	450 305X305X3t
AH-250	RE80	250	0.6 - 80k	2500	1750	800 305X305X3t

PERFORMANCE

Parameters	Test Conditions	Specifications
Short Time Over Load	5X wattage rating • 5sec.	$\Delta R \pm (0.5X + 0.05 \Omega)$ MAX
Moisture Resistance	temp 40°C moisture 95: 0C100V500Hr	$\Delta R \pm (0.5X + 0.05 \Omega)$ MAX
Moisture Load Life	temp 40°C moisture 95: 1/10X wattage rating (1.5Hr ON - 0.5Hr OFF) • Repeat 1000Hr	$\Delta R \pm (0.5X + 0.05 \Omega)$ MAX
Load Life	Load Rating (Chassis mounted) (1.5Hr ON - 0.5Hr OFF) Repeat 1000Hr	$\Delta R \pm (1.5X + 0.05 \Omega)$ MAX
Vibration	10c/s - 50c/s - 10c/s (1min) - 2Hr each of Parallel and right angle	$\Delta R \pm (0.5X + 0.05 \Omega)$ MAX
Heat Resistance	275°C 2Hr	$\Delta R \pm (0.5X + 0.05 \Omega)$ MAX
Dielectric Strength	AH-5 AH-10 AH-25 1000V AH-50 1500V AH-100 AH-250 2500V	$\Delta R \pm (0.2X + 0.05 \Omega)$ MAX
Insulation Resistance	Under the same test condition of Dielectric Strength. load DC 50V and measure the Insulation R.	1000M Ω min
Tensile Strength	(1) Pull Test (30sec min) AH-5 1kg. AH-10 2.3kg. AH-25 5kg. AH-50 4.5kg (2) Torque Test (5~15sec) AH-100 27kg • cm. AH-250 36kg • cm	$\Delta R \pm (0.2X + 0.05 \Omega)$ MAX

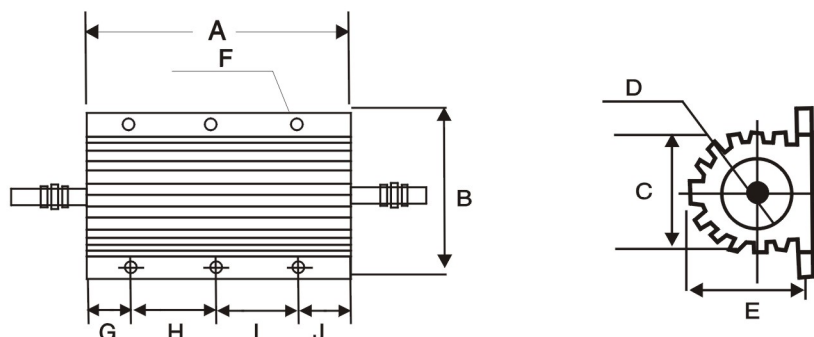
Materials:

Encapsulant: Silicone
Endcaps: Stainless steel
Core: Ceramic, steel, or alumina
Housing: Aluminum with hard anodic coating
Element: Copper-nickel alloy, nickel-chrome alloy or manganese copper
Standard Terminals: 5~50W Tinned terminals
100~250W Threaded terminals

DIMENSIONS

AH-75-300

AHN-75-300



CHINA TYPE

TYPE	DIMENSIONS (mm)									
	A±1	B±1	C±0.5	D±0.5	E±0.5	F	G	H	I	J
AH-75 AHN-75	67	48	22	17	26	4	16	TWO HOLES		16
AH-100 AHN-100	98	48	22	17	26	6	14	35	35	14
AH-150 AHN-150	136	48	22	17	26	6	12	56	56	12
AH-200 AHN-200	155	48	22	17	26	6	12.5	65	65	12.5
AH-250 AHN-250	170	48	22	17	26	6	20	65	65	20
AH-300 AHN-300	128	72	45	32	41	6	12	52	52	12

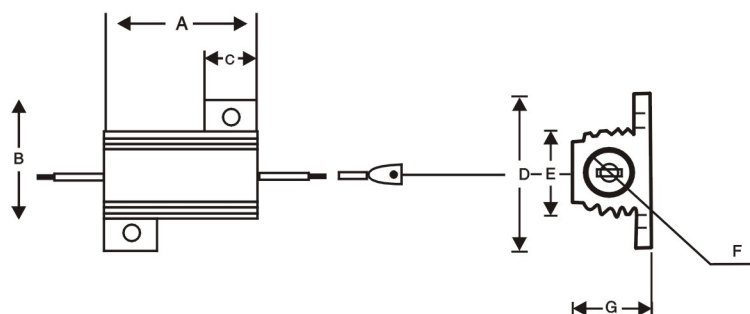
DIMENSIONS

AH-5 AH-10

AHN-5 AHN-10

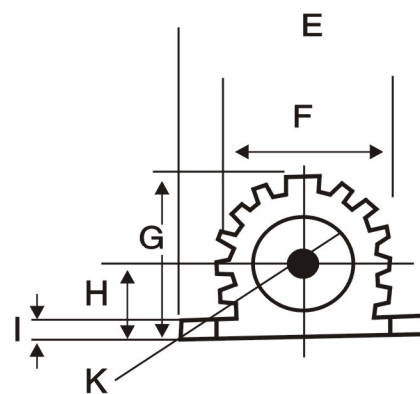
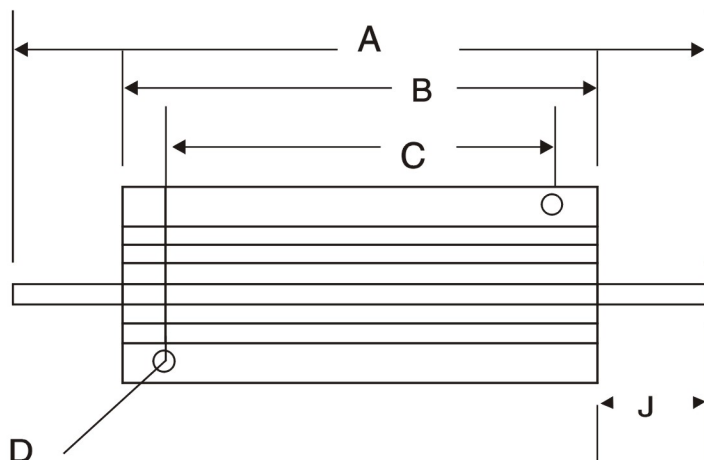
AH-25 AH-50

AHN-25 AHN-50



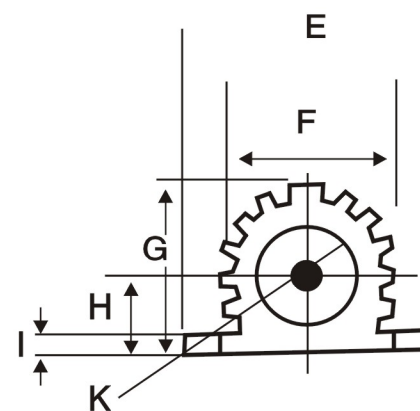
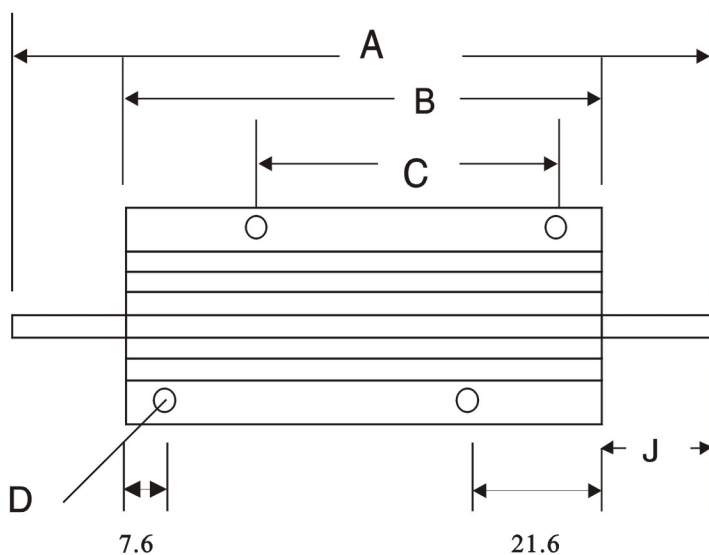
CHINA & TAIWAN SAME TYPE

TYPE	DIMENSIONS (mm)						
	A±1	B±0.5	C±0.5	D±1	E±0.5	F	G
AH-5 AHN-5	15	13	4	17	9.5	6	8
AH-10 AHN-10	20	17	6	23	10.5	7.5	10.5
AH-25 AHN-25	28	21	10	27	13	10	14
AH-50 AHN-50	50	23	10.5	29.5	15	11	15.5



TAIWAN TYPE

Power Rating	尺寸 Dimensions (mm)										
	A ± 2.5	B ± 1	C ± 1	D ± 0.5	E ± 0.5	F ± 0.5	G ± 1	H ± 0.5	I ± 0.5	J ± 1	K ± 0.1
AH-100W	122	90	75	5	71.5	45	44	20	4.4	16	M5
AH-100WS	98.5	66	35	4.5	47	27	25	13	3.2	10.5	M4



TAIWAN TYPE

Power Rating	尺寸 Dimensions (mm)										
	A ± 2.5	B ± 1	C ± 1	D ± 0.5	E ± 0.5	F ± 0.5	G ± 1	H ± 0.5	I ± 0.5	J ± 1	K ± 0.1
AH-250W	178	114	75	5	77	57	55.5	25	5	32	M6