

PRECISION POWR 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° to +275° c

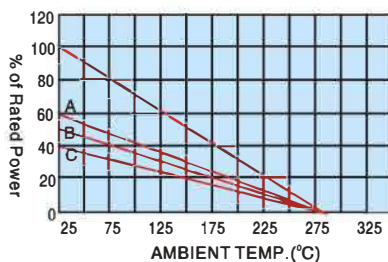
Dielectric Strength: AH-5AH-10AH-25 1000VAH-50 1500VAH-100AH-250 2500V

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 $\Omega \pm 9$ $\text{OPPM}/^\circ\text{C}$ = below 1 Ω

SURFACE TEMPERATURE VERSUS POWERLOAD (on Chassis)



DERATING



Derating required to reduce chassis mounting area and high ambient temperatures. Curves A-8&10 watt unmounted, B-25 watt unmounted, C-50, 100&250 watt unmounted.

HOW TO ORDER

AH50 20 Ω D
Type Resistance Tolerance

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



STANDARD ELECTRICAL SPEC.

| Type | MIL Style | Wattage Rating | Resistance Range (Ω) | | MAX Wcring (V) | | (g) MAX Weight | Proper heat sink (aluminum chassis) |
|--------|-----------|----------------|-------------------------------|--------------------|----------------|------|----------------|-------------------------------------|
| | | | A N Inactive | A H N Noninductive | AH | AHN | | |
| AH-5 | RE60 | 5 | 0.05 -3k | 0.1 -1 k | 120 | 70 | 3 | 152X102X51X1t |
| AH-10 | RE65 | 10 | 0.02 -6k | 0.03-2.3k | 245 | 180 | 7 | 152X102X51X1t |
| AH-25 | RE70 | 25 | 0.012-15k | 0.02-5.5k | 500 | 300 | 15 | 178X127X51X1t |
| AH-50 | RE75 | 50 | 0.01 -40k | 0.02-12 k | 1300 | 500 | 33 | 305X305X1.5t |
| AH-100 | RE77 | 100 | 0.4 -50k | 0.12-25 k | 1900 | 1340 | 450 | 305X305X3t |
| AH-250 | RE80 | 250 | 0.6 -80k | 0.15-40 k | 2500 | 1750 | 800 | 305X305X3t |

PERFORMANCE

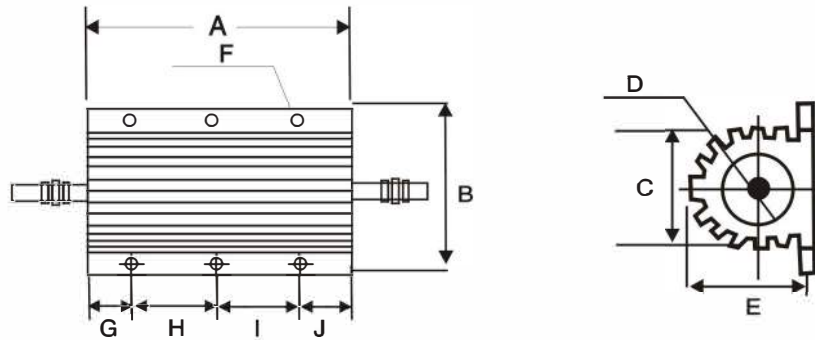
| Parameters | Test Conditions | Specifications |
|-----------------------|---|---|
| Short Time Over Load | 5X wattage rating * Ssec. | $\Delta R \pm (0.5X + 0.05 \Omega)$ MAX |
| Moisture Resistance | temp 40°C moisture 95:0C 100v5C0Hr | $\Delta R \pm (0.5X + 0.05 \Omega)$ MAX |
| Moisture Load Life | 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 1 C00Hr | $\Delta R \pm (1.5X + 0.05 \Omega)$ MAX |
| Vibration | 10c/s-50c/s-10c/s (min)-2H reach 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 DC5DCV and measure the Insulation R. | 1000M Ω min |
| Terminal Strength | (1) Pull Test (30 sec Nin) AH-5 1kg. AH-10 2.3kg. AH-25. AH-50 4.5kg (2) Torque Test (5-15 sec) 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 steatite 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

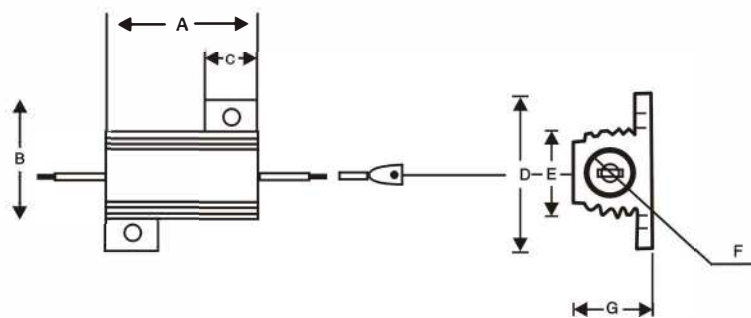
DIMENSIONS
AH-75-300
AHN-75-300



CHINA TYPE

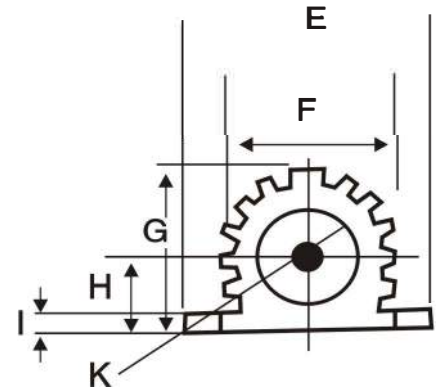
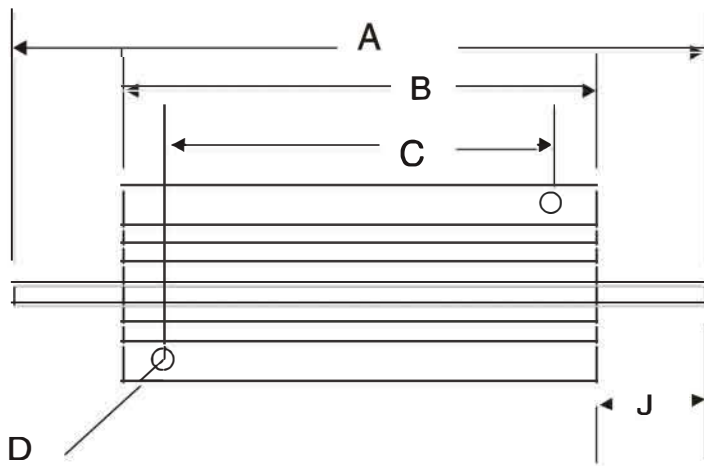
| TYPE | DIMENSIONS (mm) | | | | | | | | | |
|-------------------|-----------------|-----|-------|-------|-------|---|------|-----------|----|------|
| | A±1 | B±1 | C±0.5 | D±0.5 | E±0.5 | F | G | H | I | J |
| AH-75 AHN-75 | 67 | 48 | 22 | 17 | 26 | 4 | 16 | TWO HOLES | | 16 |
| AH-100 AHN-100 | 98 | 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



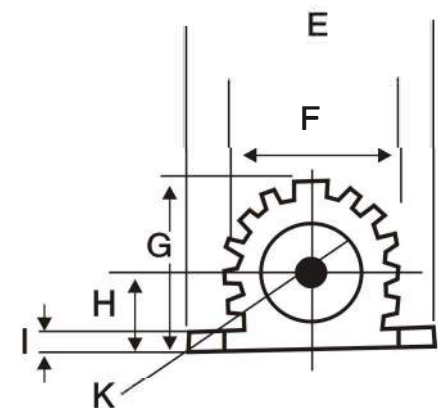
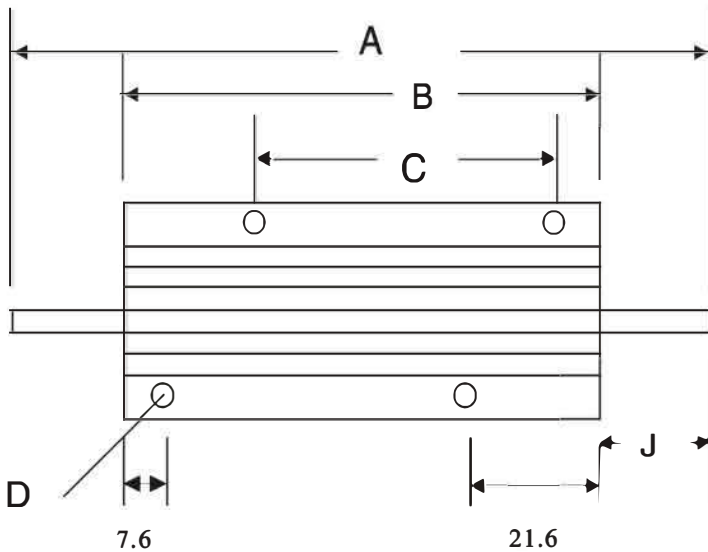
CHINA & TAIWAN
SAME TYPE

| 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 | 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 | 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 |