

PRECISION POWR RESISTORS Aluminum Housed (Chassis Mount)

FEATURE :

- Highpower rating, small size and ultraprecision
- Standard winding & non-inductivewinding types.
- High stability, strong construction.

GENERAL SPEC :

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

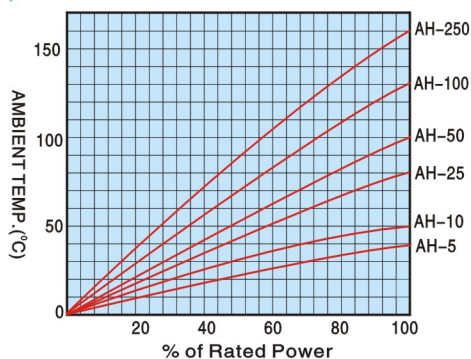
Resistance Tolerance: 10%, 5%, 3%, 2%, 1%, , 0.5%

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

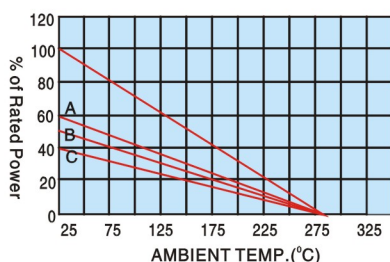
Dielectric Strength: AH-5 AH-10 AH-25 1000V AH-50 1500V AH-100 AH-250 2500V

Temperature Coefficient of Resistance: Standard T. C. : ±30PPM/°C = 10Ω and up, ±50PPM/°C = 1 to 9.99Ω ±90PPM/°C = below 1Ω

SURFACE TEMPERATURE VERSUS POWER LOAD (on Chassis)



DERATING



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

Resistance Tolerance

| | |
|---|--------|
| D | ±0.5 I |
| F | ± 1 I |
| G | ± 2 I |
| H | ± 3 I |
| J | ± 5 I |
| K | ± 10 I |

HOW TO ORDER

| | | |
|------|------------|-----------|
| AH50 | 20 Ω | D |
| Type | Resistance | Tolerance |



STANDARD ELECTRICAL SPEC.

| Type | MIL Style | Wattage Rating | Resistance Range (Ω) | | MAX Wcring (V) | | (g) MAX Weight | Proper heatsink (aluminum chassis) |
|--------|-----------|----------------|----------------------|------------------|----------------|-------|----------------|------------------------------------|
| | | | A N Inactive | A H N Nonductive | A H | A H N | | |
| 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

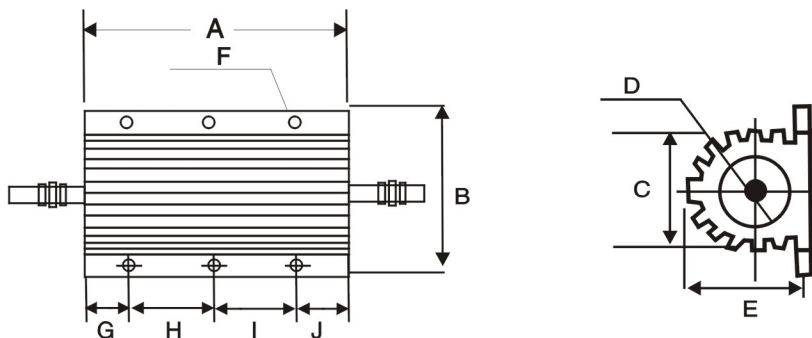
| Parameters | Test Conditions | Specifications |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
| Short Time Over Load | 5X wattage rating • 5sec. | ΔR± (0.5X+0.05 Ω) MAX |
| Moisture Resistance | temp 40°C moisture 95:0C100v500Hr | ΔR± (0.5X+0.05 Ω) MAX |
| Moisture Load Life | temp 40°C moisture 95:1/10X wattage rating (1.5Hr ON-0.5Hr OFF) • Repeat 1000Hr | ΔR± (0.5X+0.05 Ω) MAX |
| Load Life | Load Rating (Chassis mounted) (1.5Hr ON 0.5Hr OFF) Repeat 1000Hr | ΔR± (1.5X+0.05 Ω) MAX |
| Vibration | 10c/s-50c/s-10c/s (1min)-2Hr each of Parallel and right angle | ΔR± (0.5X+0.05 Ω) MAX |
| Heat Resistance | 275°C 2Hr | ΔR± (0.5X+0.05 Ω) MAX |
| Dielectric Strength | AH-5 AH-10 AH-25 1000V AH-50 1500V AH-100 AH-250 2500V | ΔR± (0.2X+0.05 Ω) MAX |
| Insulation Resistance | Under the same test condition of Dielectric Strength. load DC 50V and measure the Insulation R. | 1000MΩ min |
| Terminal Strength | (1) Pull Test (30 sec Min) AH-5 1kg. AH-10 2.3kg. AH-25. AH-50 4.5kg (2) Torque Test (5-15sec) AH-100 27kg • cm. AH-250 36kg • cm | ΔR± (0.2X+0.05 Ω) 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

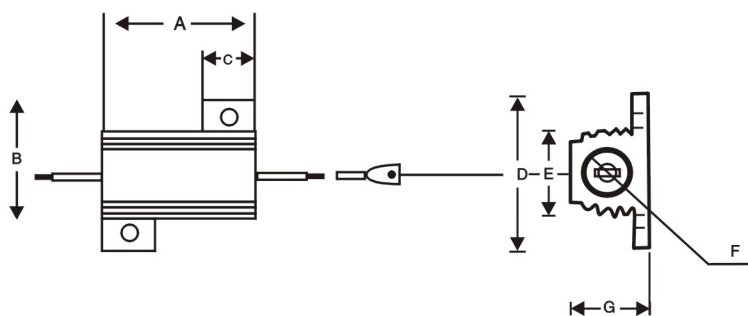


CHINA TYPE

| 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 |

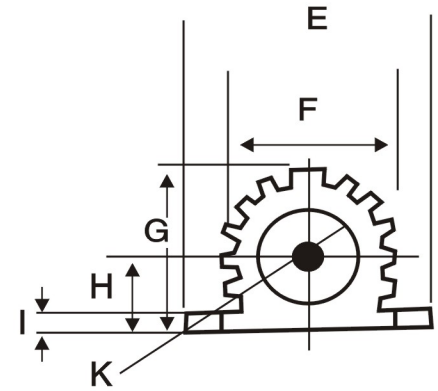
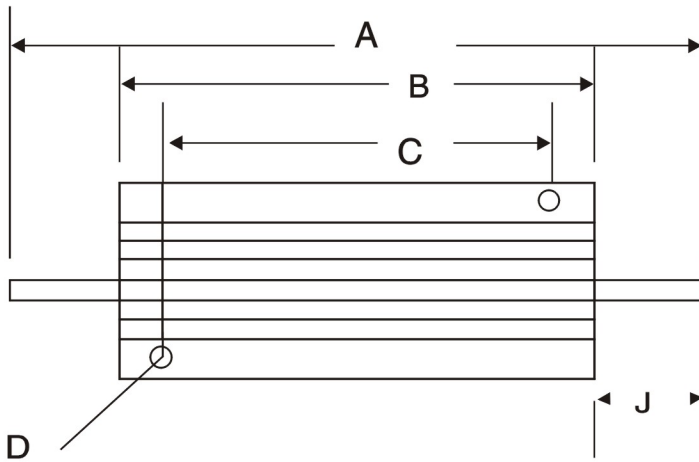
DIMENSIONS

AH-5 AH-10
AHN-5 AHN-10
AH-25 AH-50
AHN-25 AHN-50



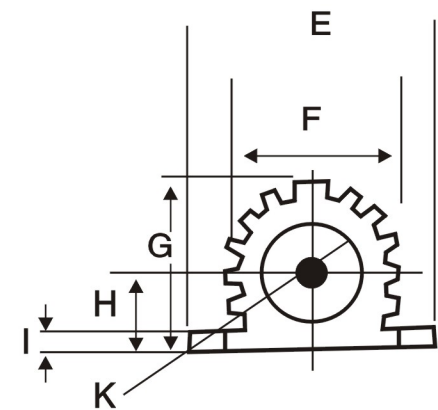
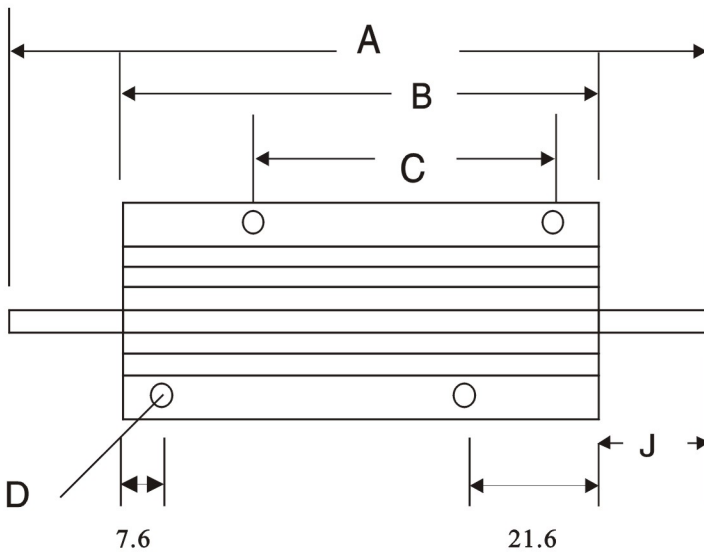
CHINA & TAIWAN SAME TYPE

| 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 | 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 |