

Gold Aluminum Housed Wirewound Resistors



AHW Series

MERITEK

FEATURES

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



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

DIMENSIONS AND RESISTANCE RANGE

Type	DIMENSIONS(mm)										Resistance Range
	L1 ± 2	L2 ± 1	L3 ± 1	A ± 1	B ± 1	C ± 1	E ± 0.3	S ± 1	H ± 0.5	P ± 2	
AHW-5W	25	15	10	16.5	12.5	8.5	2	8	4	5	0.1 Ω ~50K
AHW-10W	32	19	14	20	15.5	10.5	2	10	5	6	0.1 Ω ~50K
AHW-25W	47	27	18	27	19	15	3.2	15.5	7	10	0.1 Ω ~100K
AHW-50W	70	50	39	29	21	15	3.2	15.5	7	10	0.1 Ω ~100K
AHW-80W	102	66	35	47	37	28	4.5	25	12	5*18	0.1 Ω ~100K
AHW-100WS	102	66	35	47	37	28	4.5	25	12	5*18	0.1 Ω ~100K
AHW-100W	135	89	69	70	58	46	5	44.5	19.5	6*23	0.1 Ω ~3K
AHW-250W	155	114	98	77	64	53	5	55.5	25	6*21	0.1 Ω ~3K
AHW-300W	155	114	98	77	64	53	5	55.5	25	6*21	0.1 Ω ~3K

Specifications are subject to change without notice.

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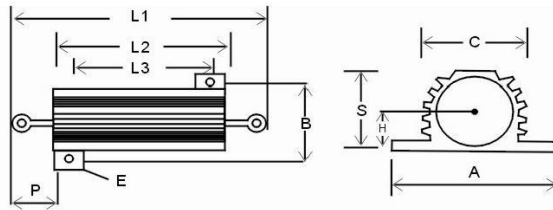


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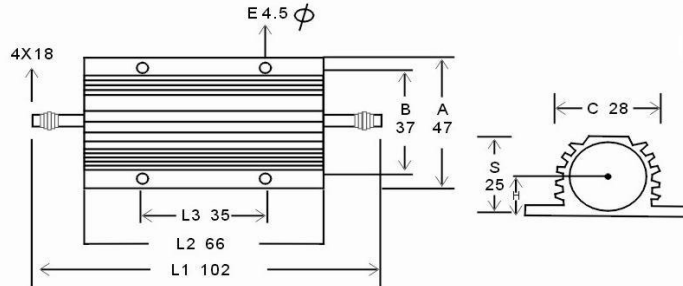
PRECISION POWER RESISTORS DIMENSIONS---5~50W.100W.250W

AHW-5W
 AHW-10W
 AHW-25W
 AHW-50W



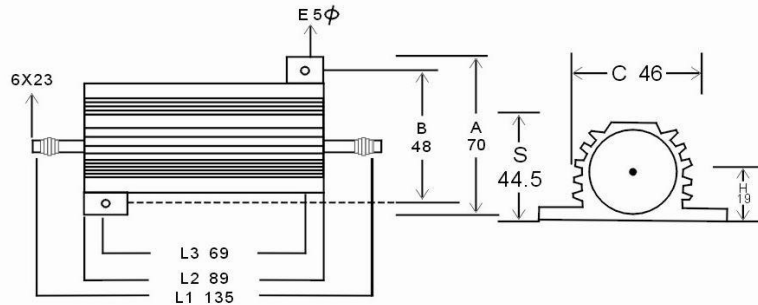
AP-5W
 AP-10W
 AP-25W
 AP-50W

AHW-80W
 AHW-100WS

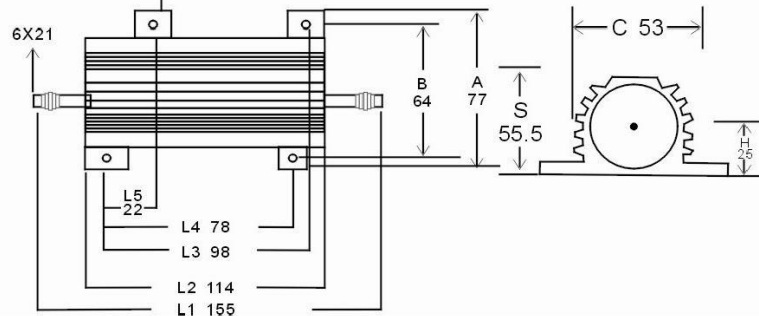


Type P: Copper Leads on both sides.

AHW-100W



AHW-200W
 AHW-250W
 AHW-300W



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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

PERFORMANCE

Parameters	Test Conditions	Specifications
Short time Over Load	5X wattage rating-5sec	$\Delta R \pm (0.5\% + 0.05\Omega) \text{MAX}$
Moisture Resistance	Temp 40°C moisture 95% DC100V 500HR	$\Delta R \pm (0.5\% + 0.05\Omega) \text{MAX}$
Moisture Load Life	Temp 40°C moisture 95% 1/10X Wattage rating (1.5Hr ON-0.5Hr OFF)-Repeat 1000Hr	$\Delta R \pm (0.5\% + 0.05\Omega) \text{MAX}$
Load Life	Load Rating(chass is mounted) (1.5Hr ON 0.5Hr OFF) -Repeat 1000Hr	$\Delta R \pm (1.5\% + 0.05\Omega) \text{MAX}$
Vibration	10c/s~50c/s~10c/s(1min)2Hr each of paralleled and right angle	$\Delta R \pm (0.2\% + 0.05\Omega) \text{MAX}$
Heat Resistance	275°C 2Hr	$\Delta R \pm (0.5\% + 0.05\Omega) \text{MAX}$
Dielectric Strength	AHW-5 AHW-10 AHW-25 1000V AHW-50 1500V AHW-100 AHW-250 2500V	$\Delta R \pm (0.2\% + 0.05\Omega) \text{MAX}$
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) AHW-51kg.AHW-10 2.3kg.AHW-25.AHW-50 4.5kg (2) Torque Test (5~15sec) AHW-100 27kg-cm,AHW 250 36Kg-cm	$\Delta R \pm (0.2\% + 0.05\Omega) \text{MAX}$

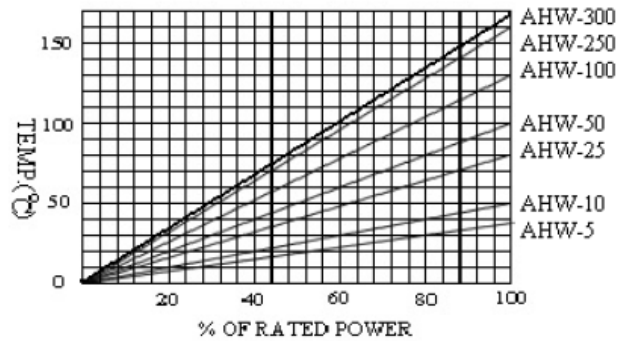
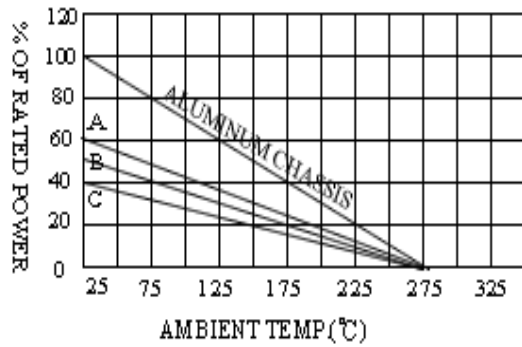
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SURFACE TEMPERATURE VERSUS POWER LOAD (On Chassis)



PACKING

AHW	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
300W	6	36