

Boat Type Aluminum Housed Wirewound Resistors



An aluminum encased consists of an alloy metal coil-type resistance element assembled into an aluminum enclosure. Following high-temperature anodization, the enclosure is filled with a special non-flammable cement paste and after hardening, insulation is applied through a high-temperature process. Since the component is embedded in the heat-proof cement, it is not affected by external mechanical force, dusty environments, and extreme duty. It is durable, vibration-proof, dissipates heat well, and has a low temperature coefficient, with resistance varying in direct proportion. Supporting a flexible range of applications, the product is easy to utilize and install. Applications include industrial machinery, load testing, electric power distribution, instruments, and automated control installations.

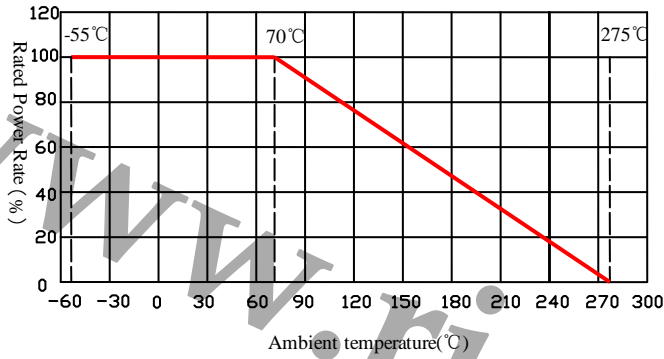
For custom specifications, please contact us to discuss the details.

Performance Specifications

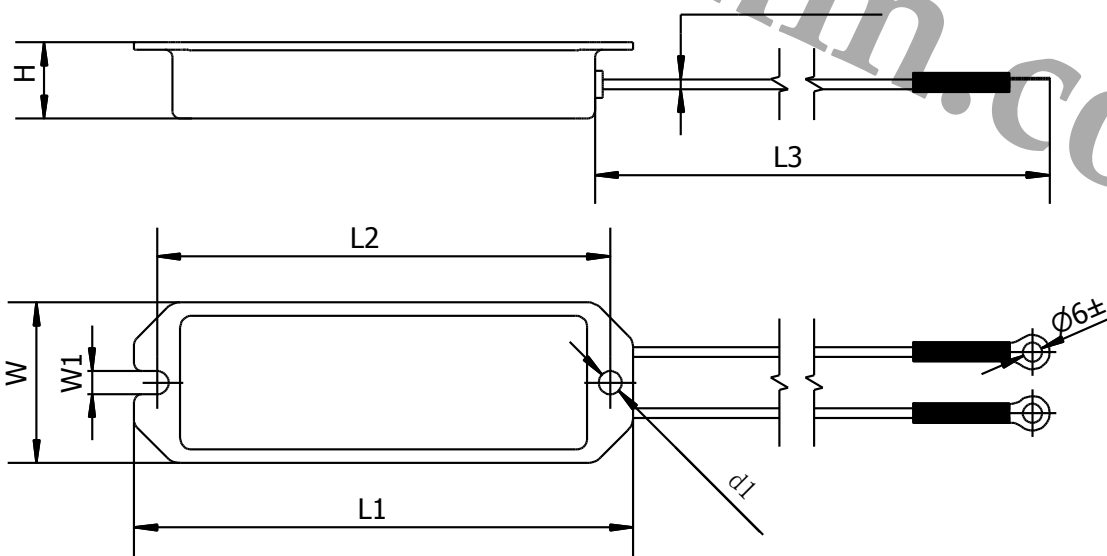
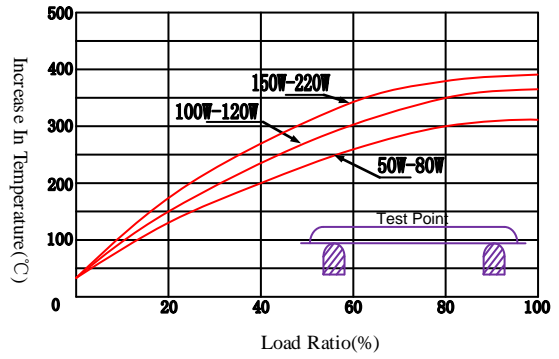
Test Item	Test Methods	Characteristics
Resistance tolerance	JIS-C-5202 5-1	Resistance Nominal Tolerance $1 \leq R$ $1 > R$ $\pm 5\%(J) \pm 10\%(K)$
Temperature coefficient	JIS-C-5202 5-2	$\pm 400 \text{PPM}/^\circ\text{C MAX}$
Power rating load	JIS-C-5202 5-4	$\Delta R/R \leq \pm(0.5\% + 0.1\Omega)$ Surface temperature up to 350°C MAX
Short-term overload	JIS-C-5202 5-5 1000% rated power 5 seconds	Free of appearance or structural irregularity $\Delta R/R \leq \pm(2\% + 0.1\Omega)$
Insulation resistance	JIS-C-5202 5-6 1000VDC	100M Ω min
Dielectric withstanding voltage	JIS-C-5202 5-7 2000VDC 1 minute	Free of appearance or structural irregularity $\Delta R/R \leq \pm(0.1\% + 0.05\Omega)$
Terminal strength	JIS-C-5202 6-1 8kg 30 seconds	Free of appearance or structural irregularity
Resistor strength	JIS-C-5202 6-2 30kg 30 seconds	Free of appearance or structural irregularity
Vibration	JIS-C-5202 6-3 1.5m/m 10 ~ 50 ~ 10 Hz/min X-Y-Z 2 hours each	Free of appearance or structural irregularity Surface coating crack $\Delta R/R \leq \pm(1\% + 0.05\Omega)$
Thermal shock	JIS-C-5202 7-3 Room temp 30 minutes ON- 55°C 15 minutes OFF	Resistor free of structural irregularity $\Delta R/R \leq \pm(2\% + 0.1\Omega)$
Humidity	JIS-C-5202 7-5 40°C 90%RH 240 hours	Free of appearance or structural irregularity Surface coating crack $\Delta R/R \leq \pm(3\% + 0.1\Omega)$
Load life	JIS-C-5202 7-10 90 minutes ON - 30 minutes OFF 500 hours	Free of appearance or structural irregularity Surface coating crack $\Delta R/R \leq \pm(3\% + 0.1\Omega)$
Flame retardation	JIS-C-5202 7-13-3-2 100% - 600% rated power load	US UL-94 flame retardation test V-0 grade noncombustible
Remarks	1. Resistance and resistance tolerance were tested in-house with micro resistance meter. 2. Resistor coating refers to UL-certified data provided by supplier	

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Rated Power Derating Curve:



Surface Temperature Rise:



Specifications and Dimensions

Power	Resistance range	Dimensions(mm)									Max. working Voltage	Max. overload Voltage	Withstand Voltage
		L1±1	L2±1	L3±0	W±1	W1±0.5	H±1	d1±0.5	d2±0.2	φ±0.5			
50W	0R1~9K	100	90	200	30	4.5	14	4.5	2.51	6	300V	300V	450V
60W	0R1~9K	100	90	200	30	4.5	14	4.5	2.51	6	300V	300V	450V
80W	0R1~19K	130	118	200	42	6	20	6	3.44	6	400V	400V	600V
100W	0R1~19K	130	118	200	42	6	20	6	3.44	6	400V	400V	600V
120W	0R1~32K	182	172	200	42	6	20	6	3.44	6	500V	500V	750V
150W	1R0~32K	182	172	200	42	6	20	6	3.44	6	500V	500V	750V
220W	0R1~49K	230	220	200	60	4.5	20	4.5	3.44	6	600V	600V	900V