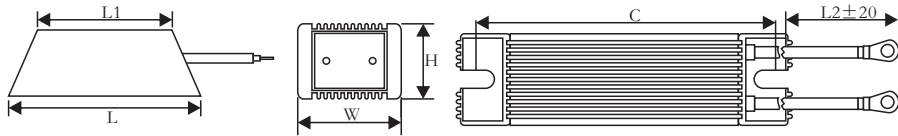


● Features

- I Aluminum crust surface with good performance in heat radiation, suitable for cooling plate installation, can be used in the atrocious environment.
- II Small size, high power load.
- III High insulating capacity, encapsulation by non-flame inorganic material, good performance in vibration.
- IV Multi connection form will be easy to fix.
- V Widely used in power supply, Transducer, Elevator, Arena audio and high requirement equipment industry.
- VI Resistance tolerance: $\pm 1\%$, $\pm 2\%$, $\pm 5\%$, $\pm 10\%$.

● Dimensions



Type	Power (W)	Dimensions(mm)					
		$L \pm 1$	$L1 \pm 1$	$W \pm 0.5$	$H \pm 0.5$	$C \pm 0.5$	L2
MND	40	100	70	25	20	80	Customerized
MND	60	120	90	25	20	104	lead wire is available

● Ordering Information

Example:

MND 40 J 10R0
 (1) (2) (3) (4)
 Series Name Power Rating Resistance Tolerance Resistance

- (1) Type: MND SERIES
- (2) Power Rating: 40=40W, 60=60W
- (3) Tolerance: J= $\pm 5\%$
- (4) Resistance Value: R100=0.1 Ω , 1R00=1 Ω , 10R0=10 Ω

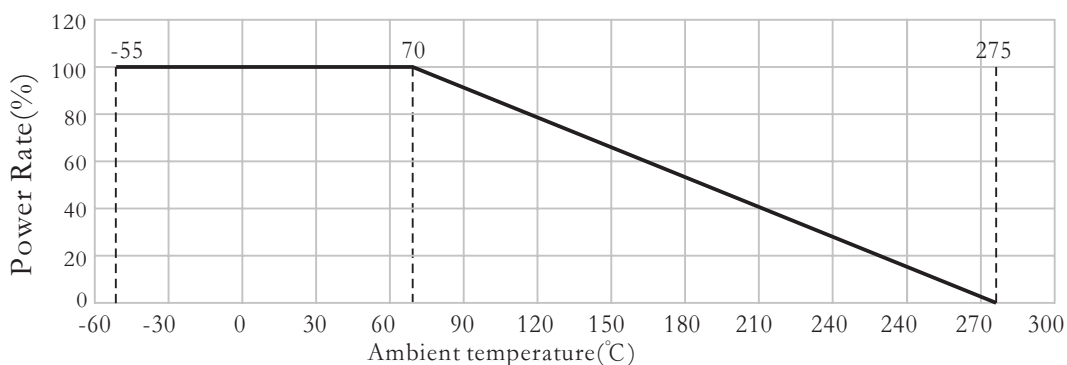
● Reference Standards

JISC 5201-1

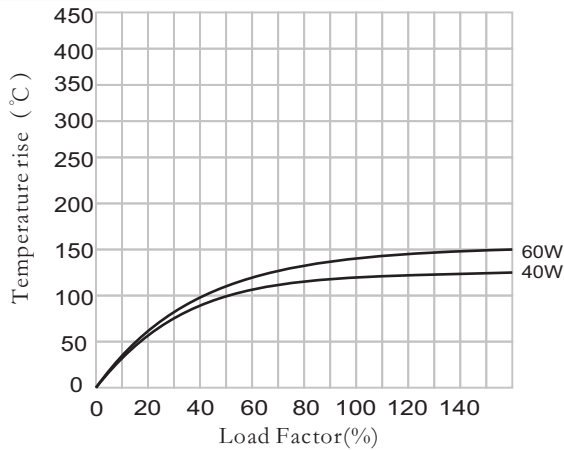
● Applications And Ratings

Rated Power (W)	Resistance Range(Ω)	Tolerance	T.C.R	Max Working Voltage	Max Overload Voltage	Dielectric Withstanding Voltage
40	1R~1KR	J $\pm 5\%$ K $\pm 10\%$	$\pm 300\text{PPM}/^\circ\text{C}$	$\sqrt{P \cdot R}$	$\sqrt{10 \cdot P \cdot R}$	1500V/ Ac
60	1R~1KR					

● Derating Curve



Surface Temperature Rise



Performance

Test Items	Performance	Test Methods(JIS C 5201-1)
Temperature coefficient	$\pm 300\text{ppm}/^{\circ}\text{C}$	Test resistance value at normal temperature and normal temperature added 100°C , calculate $^{\circ}\text{C}$ resistance value change rate.
Short time overload	$\Delta R \leq \pm (2\%R_0 + 0.05\Omega)$	10X rated power or Max. overload voltage(get the lower) for 5seconds.
Resistance to soldering heat	$\Delta R \leq \pm (1\%R_0 + 0.05\Omega)$	Immerge into the $350 \pm 10^{\circ}\text{C}$ tin stove for 2~3 seconds
Dielectric withstanding voltage	No obvious mechanical damage or spark-over	Add AC 1500V or 2000V or 2500V for 1min.
Temperature cycle	$\Delta R \leq \pm (1\%R_0 + 0.05\Omega)$	At -55°C for 30min, then at $+25^{\circ}\text{C}$ for 10~15min, then at $+125^{\circ}\text{C}$ for 30min, then at $+25^{\circ}\text{C}$ for 10~5 min, total 5cycles.
Load life in humidity	$\Delta R \leq \pm (3\%R_0 + 0.05\Omega)$	Overload rated voltage or Max.working voltage(get the lower)for 1000hours (1.5hours on and half-hour off) at the $40 \pm 2^{\circ}\text{C}$ and 90~95% relative humidity.
Load life in heat	$\Delta R \leq \pm (3\%R_0 + 0.05\Omega)$	Overload rated voltage or Max.working voltage(get the lower)for 1000hours (1.5hours on and half-hour off) at the $70 \pm 2^{\circ}\text{C}$.
Terminal strength	$\Delta R \leq \pm (2\%R_0 + 0.1\Omega)$	Pull:100N
Vibration	$\Delta R \leq \pm (2\%R_0 + 0.1\Omega)$	Frequency:10~55Hz, Swing:0.75mm,Test time:6hours
Nonflammability	No visible flame	Respectively load AC voltage by 5,10,16 times rated power for 5 minutes.