

Flat Type Metal Clad Wire Wound Resistors

The ARN(N=Narrow and flat) models are metal-clad, wire wound, high-power, low inductance resistors designed for industrial and other applications where space is at a premium and performance is a must. All of these models use an extruded aluminum housing providing rugged and strong protection. The flat design allows excellent heat dissipation. These models are available with flying leads. The most common applications for these models are : Motor drives, braking and snubber applications and power sources for industrial equipment.



GENERAL SPECIFICATIONS

Model	Rated Power (On Heat Sink)	Resistance Range	Resistance Tolerance
ARN 50C	50W	1Ω~420Ω	D [±0.5%] F [±1.0%]
ARN 100C	100W	1Ω~1.1KΩ	G [±2.0%] J [±5.0%]
ARN 150C	150W	1Ω~1.75KΩ	K [±10.0%]

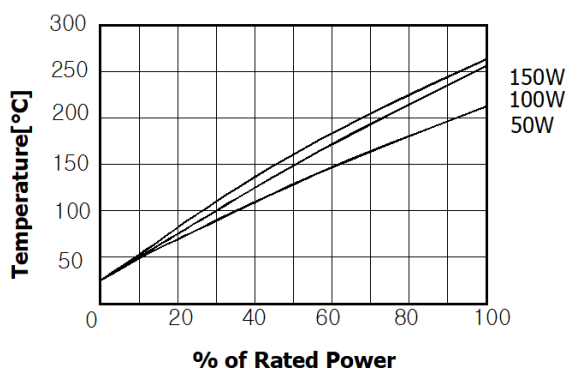
CHARACTERISTICS

Values in [] mean change in Ω after test

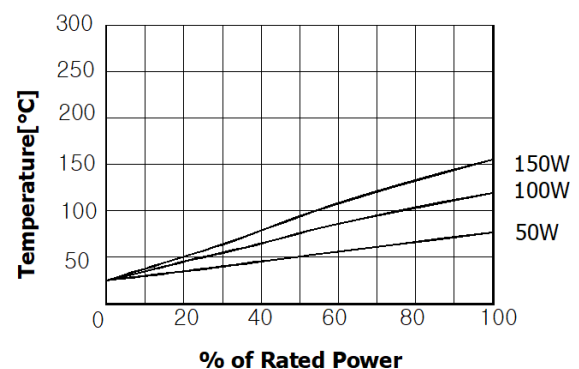
Operating Temp.	-55°C~+200°C	
Insulation Resistance	20MΩ minimum	
Dielectric Withstanding Voltage	Available options : AC1500V,2500V,3500V,4500V for 1min. ; Max. leakage current : 2mA	
Temperature Coefficient	±260ppm/°C maximum	
Short Time Overload	±[1%+0.05Ω]	5×Power rating 5seconds
Moisture Resistance	±[2%+0.05Ω]	40°C, 95% RH, DC100C case to terminal, 500hours
Thermal Shock	±[1%+0.05Ω]	Power rating 30minutes, -25°C, 15minutes
Vibration	±[1%+0.05Ω]	10Hz-55Hz-10Hz (1minute), 2hours each direction
Moisture Load Life	±[2%+0.05Ω]	40°C, 95% RH, 0.1×Power rating 1.5hours on, 0.5hours off, 500hours
Load Life	±[5%+0.05Ω]	Power rating 1.5hours on, 0.5hours off, 500hours

SURFACE TEMPERATURE INCREASE VERSUS POWER LOAD

FREE AIR



HEAT SINK



DIMENSIONS [mm]

Model	Dimensions [mm]				Weight
	L1±1	L2±0.5	W1±0.5	W2±0.5	
ARN 50C	70	50	60	50	100g
ARN 100C	120	100	60	50	160g
ARN 150C	170	150	60	50	220g

FLYING LEADS

Standard : Silicone Heat Resistance Wire (White) 1.25mm²

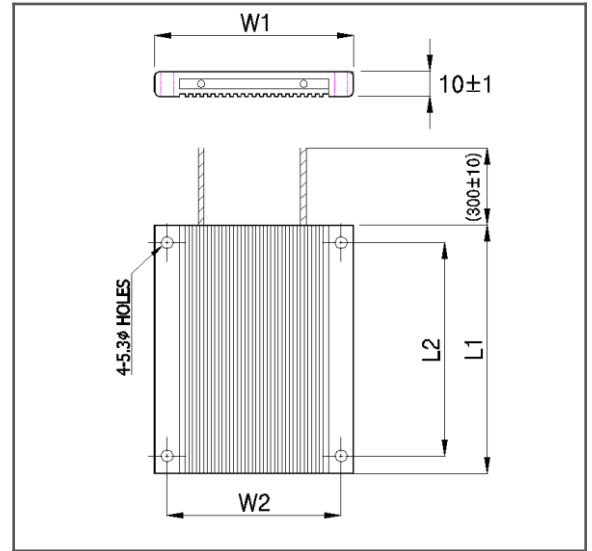
- Rated current : 23A (at 60°C)

Option : Other options of flying leads are also available.

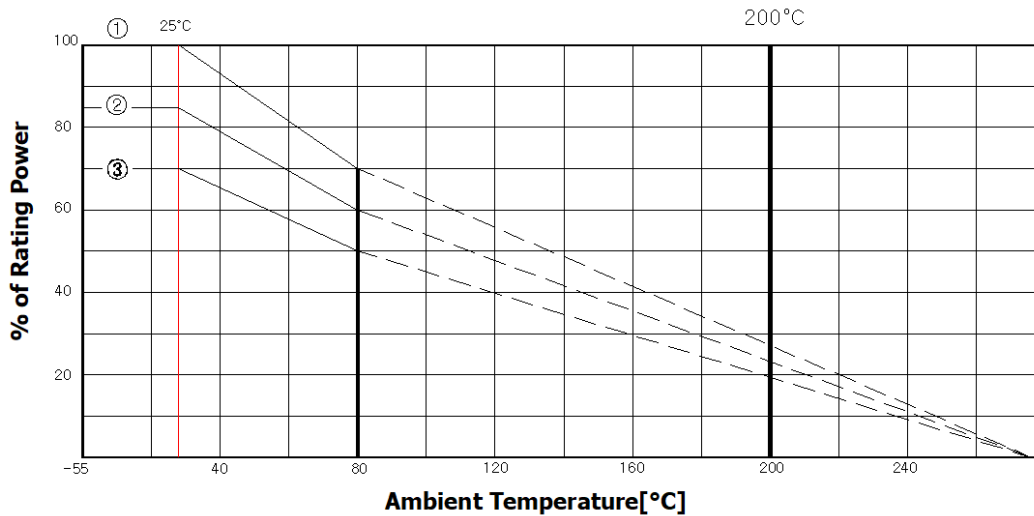
- Please ask RARA for info on this.

- Ex) Cu-R4XLPO-HV (Orange) 1.00mm²

↳ High voltage cable for electric and hybrid vehicles



DERATING CURVES



- ① ARN 100C~150C on heat sink
ARN 50C in free air
 - ② ARN 100C in free air
 - ③ ARN 150C in free air
- Heat sink size : AL 200×200×3mm

ORDERING PROCEFURE EXAMPLE

