

POWER RESISTORS

RNP 600 High Power Resistors

US Patent # 5,355,281

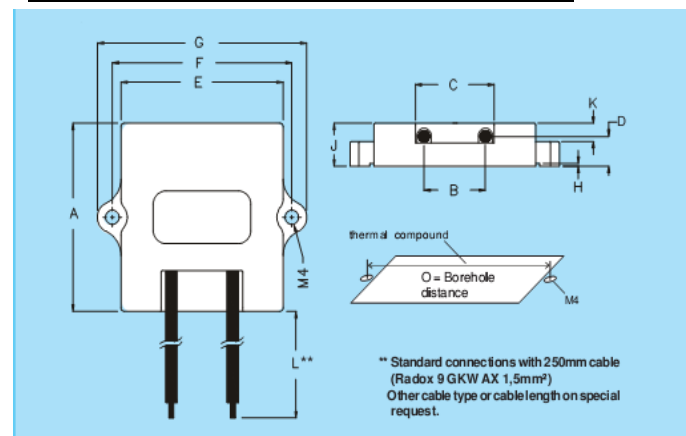
Low height high power resistors. For variable speed drive, power supplies, control devices, robotics, motor control etc.

Technical characteristics:

- ◇ 600W power rating, BCT \leq 85°C
- ◇ Specially designed low-profile package
- ◇ 2 insulated terminals
- ◇ 6 internal resistor configurations
- ◇ Strong pulse load capability, refer to :
"Rongtech power resistor pulse load Characteristics"
- ◇ Materials in accordance with UL94-V0

Dimensions:

Dim.	Min (mm)	Max (mm)
A	57.00	58.00
B	19.50	20.50
C	25.50	26.50
D	8.00	9.50
E	51.00	52.00
F	57.00	58.00
G	66.20	66.70
H	0.50	0.80
J	12.50	13.50
K	5.30	5.80
L	250	255
O	56.80	57.20

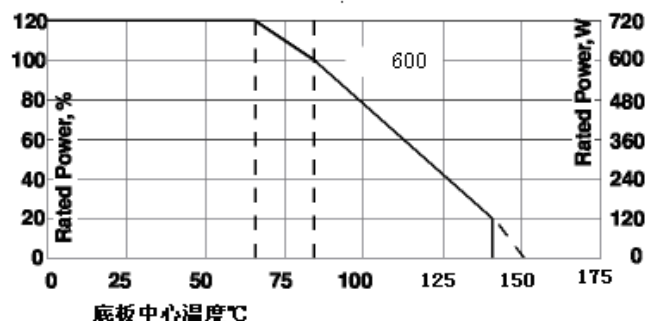


Specifications:

- ◇ Resistance: 0.5 Ω ~ 1M Ω
- ◇ Tolerance: \pm 5% ~ \pm 10%
- ◇ TCR: \pm 150ppm/ $^{\circ}$ C, (25 $^{\circ}$ C~105 $^{\circ}$ C)
Other values on request
- ◇ 600W power rating at 85 $^{\circ}$ C
- ◇ Max operating voltage: 5,000VDC.
- ◇ Momentary overload: 1000W, 70 $^{\circ}$ C, 10秒, $\Delta R \leq \pm (0.4\%R + 0.001 \Omega)$
- ◇ Peak current: up to 1500Amp. Depending on pulse length and freq.
- ◇ Dielectric strength: 6KVrms, 50Hz, 1min, 12KVrms on request.
- ◇ Partial discharge: 4KVrms, <10pC; 7KVrms on request.
- ◇ Insulation resistance: 10G Ω Min. at 500V.
- ◇ Single shot voltage: up to 12KV Normwave (1.5/50 μ sec)
- ◇ Inductance: \leq 80nH
- ◇ Capacitance /Mass : \leq 110pF
- ◇ Capacitance /Parallel: \leq 40pF
- ◇ Moisture resistance: 56 days/40 $^{\circ}$ C, RH \geq 95%, $\Delta R \leq \pm (0.25\%R + 0.001 \Omega)$.
- ◇ Thermal cycling: -55 $^{\circ}$ C/+125 $^{\circ}$ C(0.5h each), 5 cycles,
 $\Delta R \leq \pm (0.2\%R + 0.001 \Omega)$.
- ◇ Vibration, high frequency: MIL-Std-202, method 204, Cond. D,
 $\Delta R \leq \pm (0.2\%R + 0.001 \Omega)$.
- ◇ Load life: 1,000 hours at rated power, BCT=85 $^{\circ}$ C,
 $\Delta R \leq \pm (0.4\%R + 0.001 \Omega)$.
- ◇ Working temperature: -55 $^{\circ}$ C~+150 $^{\circ}$ C
- ◇ Installation: M4 screw, Max torque 1.8Nm

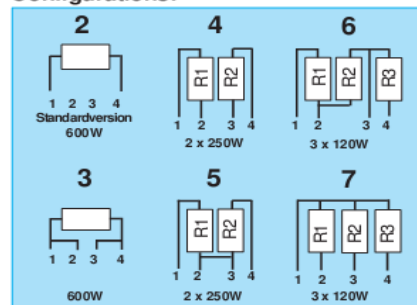


Power derating curve (power VS BCT)



Remark: derating slope (thermal resistance) : 8.33W/ $^{\circ}$ K (0.12 $^{\circ}$ K/W)
Refer to "Rongtech power resistor cooling requirements"

Configurations:



Applicable standard:

IEC60115-1: 2001 (GB/T5729-2003)
MIL-STD-202
MIL - R - 39009D

Order example:

Model	R	TOL	TCR
NXP600	50R	5%	150PPM