



HIGH POWER RESISTORS

RXP 600 High Power Resistors

600 Watt thick film, non-inductive design, US

Rongtech general models of high power resistors, for variable speed drive, power supply, control device, robotics, motor control applications etc.

Technical characteristics:

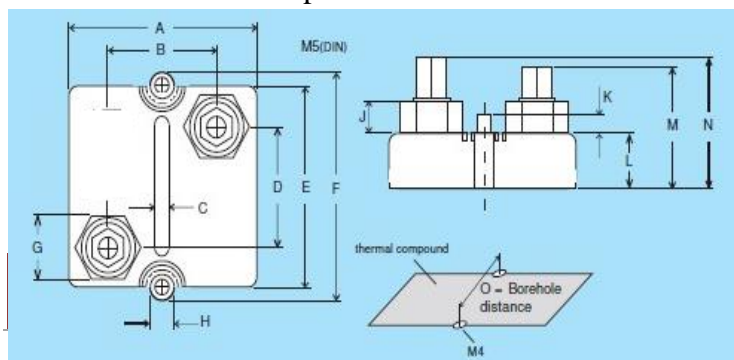
- ✧ 600W power rating, at BCT $\leq 85^{\circ}\text{C}$
- ✧ High alumina ceramic metallized on the top side with Rongtech ALtox film placed on the bottom for better heat transfer and optimum discharge.
- ✧ Special resin filled epoxy casing with large creeping distance to mass, large air distance between the terminals and high insulation resistance (CTI 600)..
- ✧ Special design for low inductance and capacitance values. The element employs our special METOXFILM which demonstrates stability while covering high wattage and pulse loading, "Rongtech power resistor pulse load characteristics"
- ✧ Materials in accordance with UL94-V0

Dimensions:

Dim.	Min (mm)	Max (mm)
A	59.20	60.80
B	35.80	36.20
C	4.50	5.50
D	33.80	34.20
E	56.80	57.40
F	64.20	65.80
G	17.50	18.50
H	4.05	4.30
J	6.50	7.50
K	4.50	5.50
L	14.50	15.50
M	29.50	30.50
N	31.50	32.50
O	56.80	57.20

Different Connector structure:

Connector height (M+N) available from 25 to 42mm. Please contact with the local representative of EBG to confirm.

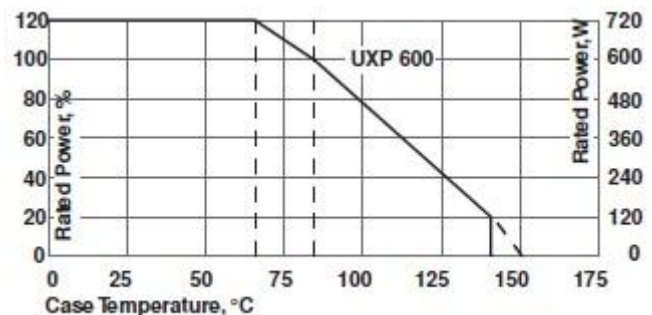


Specifications:

- ✧ Resistance: $0.5\ \Omega \sim 1\text{M}\ \Omega$
- ✧ Tolerance: $\pm 5\% \sim \pm 10\%$
- ✧ TCR: $\pm 150\text{ppm}/^{\circ}\text{C}$ ($25^{\circ}\text{C} \sim 105^{\circ}\text{C}$)
- ✧ 600W power rating at 85°C
- ✧ Max operating voltage: 5,000VDC.
- ✧ Short time overload: 1000W, 70°C , 10S, $\Delta R \leq \pm (0.4\%R + 0.001\ \Omega)$.
- ✧ Peak current: up to 1500Amp. Depending on pulse length and frequency.
- ✧ Dielectric strength: 6KVrms, 50Hz, 1min, 12KVrms on request.
- ✧ Partial discharge: 4KVrms, $< 10\text{pC}$; 7KVrms on request.
- ✧ Insulation resistance: $10\text{G}\ \Omega$, Min at 500V.
- ✧ Creeping distance: 42mm, Min.
- ✧ Air distance: 14mm, Min.
- ✧ Inductance: $\leq 80\text{nH}$
- ✧ Capacitance /Mass: $\leq 110\text{pF}$
- ✧ Capacitance /Parallel: $\leq 40\text{pF}$
- ✧ Moisture resistance: 56 days/ 40°C , RH $\geq 95\%$, $\Delta R \leq \pm (0.25\%R + 0.001\ \Omega)$.
- ✧ Thermal cycling: $-55^{\circ}\text{C}/+125^{\circ}\text{C}$ (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°C , $\Delta R \leq \pm (0.4\%R + 0.001\ \Omega)$.
- ✧ Working temperature: $-55^{\circ}\text{C} \sim +150^{\circ}\text{C}$
- ✧ Contact terminal: M5 screw, Max torque 2Nm.
- ✧ Resistor installation: M4 screw, Max torque 1.8Nm.



Power derating curve (power VS BCT)



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

Applicable standard:

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

Order example:

Model	R	TOL	TCR
UXP600	50R	5%	150PPM