



ZMP600 Thick Film Non-inductive Power Resistor

General

ZMP600 High Power Resistor is new generation of ZENITHSUN product. It is thick film, non-inductive, high power, and water cooled. Use high strength plastic shell as enclosure, composite plate welding, the resistance element is insulated from the heat sink. The power rating can remain 600W when the temperature of the bottom plate center is $\leq 85^{\circ}\text{C}$. Applied to power electronics, auto electrical, medical equipment, power transmission, wind power, photovoltaic, and other new energy industries.



Feature

- ✦ Thick Film & Non-inductive
- ✦ Wide Resistance Range
- ✦ High power capacity, good wet&heat resistance, good resistance to electrical impulses.
- ✦ Stable & reliable performance after long operation.

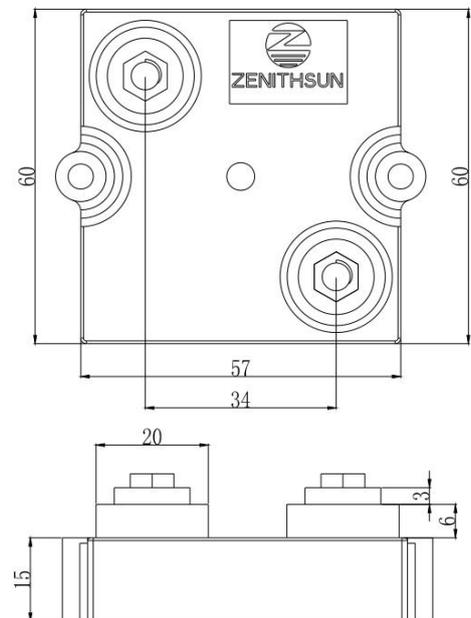
Applicable Standards

GB/T5729-2003 Fixed Resistors used in Electronic equipment, the first part: General Specification.

Main Technical Parameters

Resistance Core	96% Al_2O_3
Resistance Range	0.1 Ω ~1M Ω
Tolerance	$\pm 1\%$ ~ $\pm 10\%$
TCR	± 150 、 ± 300 ppm
Max.working voltage	5000VDC
Insulation Voltage	6000VAC, 50HZ, $I_{\text{max}} \leq 10\text{mA}$
Insulation Resistance	500V, $\geq 10\text{G}\Omega$
Resistor Terminal	M5 Bolts, Max. Torque 2Nm
Mounting	M4 Bolts, Max. Torque 1.8Nm
Climate temp.	$-55^{\circ}\text{C} \sim +155^{\circ}\text{C}$
Partial Discharge	4KV, $< 10\text{pc}$

Dimension



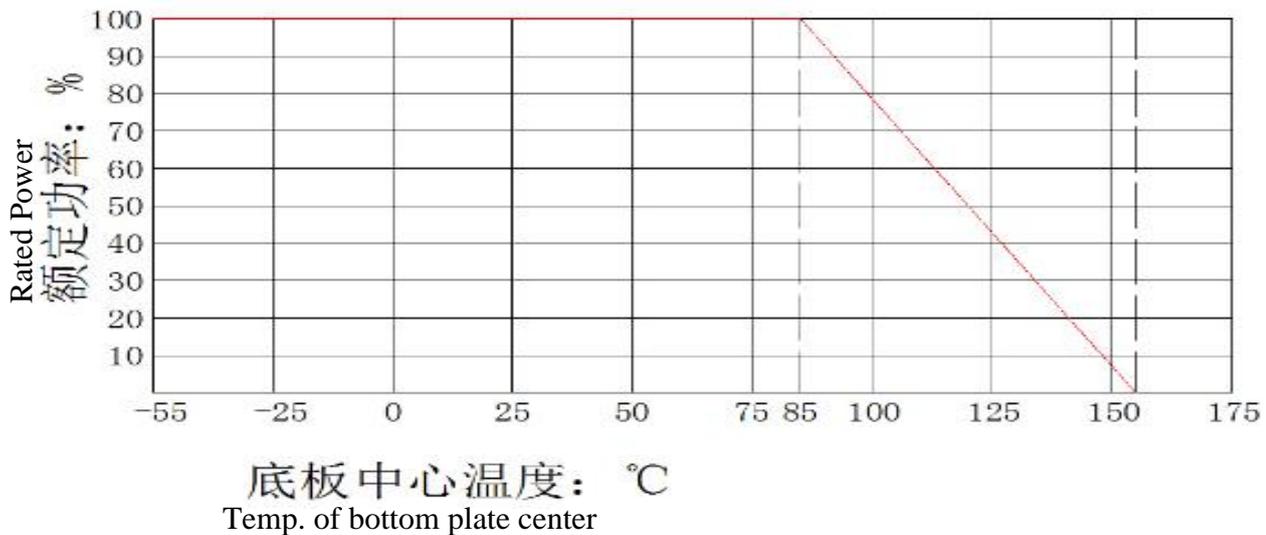
Unspecified tolerance is $\pm 0.3\text{mm}$



Main Performance

Item	Inspect Method	Performance Requirement
Short Time Overload	150% Rate Power for 10 seconds	$\Delta R \leq \pm(0.3\%R + 0.001\Omega)$
Service Life	at rated power for 1000h, Temp. of bottom plate center $\leq 85^\circ\text{C}$	$\Delta R \leq \pm(0.5\%R + 0.001\Omega)$
Wet Resistance	40°C , $\text{RH} \geq 95\%$, 56 days	$\Delta R \leq \pm(0.25\%R + 0.001\Omega)$
Thermal Shock	$-55^\circ\text{C}/125^\circ\text{C}$, 5 cycles	$\Delta R \leq \pm(0.3\%R + 0.001\Omega)$
Vibration	50HZ, amplitude 2mm, for 4h	$\Delta R \leq \pm(0.1\%R + 0.001\Omega)$

Reduced power consumption curve



How to order

Model	Rated Power	Nominal Resistance	Tolerance	TCR
ZMP600	600W	30R	J	±150PPM

Note: Please confirm the technology parameters before order.

ZENITHSUN Idea: Rigorous, Dedicated, Fast, Responsible

ZENITHSUN Value: Quality is the life, product is the character Page 2/2