

# Precision Resistor Type RUG-Z

Spec Sheet R4611/1 July 97

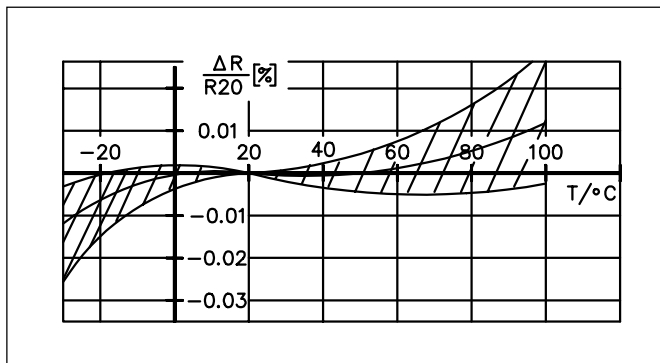
| Technical data                             |  |
|--|--|
| resistance range                           | 1 / 2 / 5 / 10 / 20 / 50 / 100 / 200 / 500mOhm - 1 / 10 / 100Ohm |
| tolerances                                 | 0.1%, 1%   |
| temperature coefficient tcr ( R > 20mOhm ) | < ±1 / ±3 / ±5 / ±10ppm/K ( 20°C to 60°C )                       |
| applicable temperature range               | -55°C to +85°C   |
| load capacity                              | 250W   |
| single pulse power load ( R < 10mOhm )     | 50J ( tp < 10ms )  |
| thermal resistance to copper base plate    | Rthi < 0.1K/W  |
| dielectric withstanding voltage            | 500VAC   |
| inductance                                 | < 10nH   |
| stability                                  | deviation <0.1% after 2,000h                                     |

This high-power resistor in four-terminal design was especially developed, where high DC or AC currents of low frequency have to be regulated with precise accuracy and reproducibility like in current supplies for superconducting magnets.

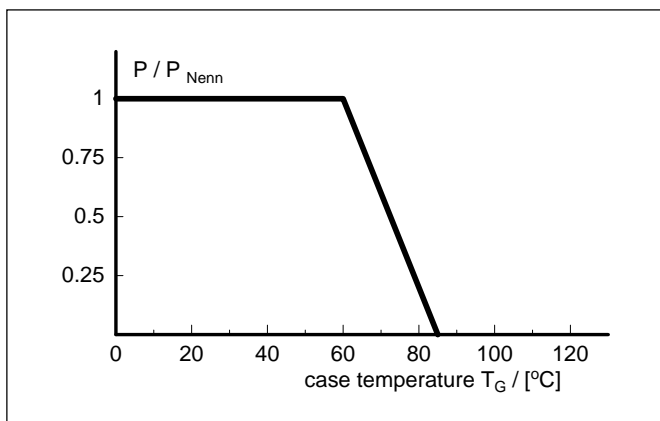
When assembled on an air or watercooled heatsink, the resistance deviation caused by temperature change and temperature coefficient is in most instances negligibly small.

Case dimensions are compatible to high-power transistor modules to a great extent. Current feed is accomplished with a screw connection between cable and copper U-terminal. The distortion-protected nut recessed in the module considerably facilitates assembly.

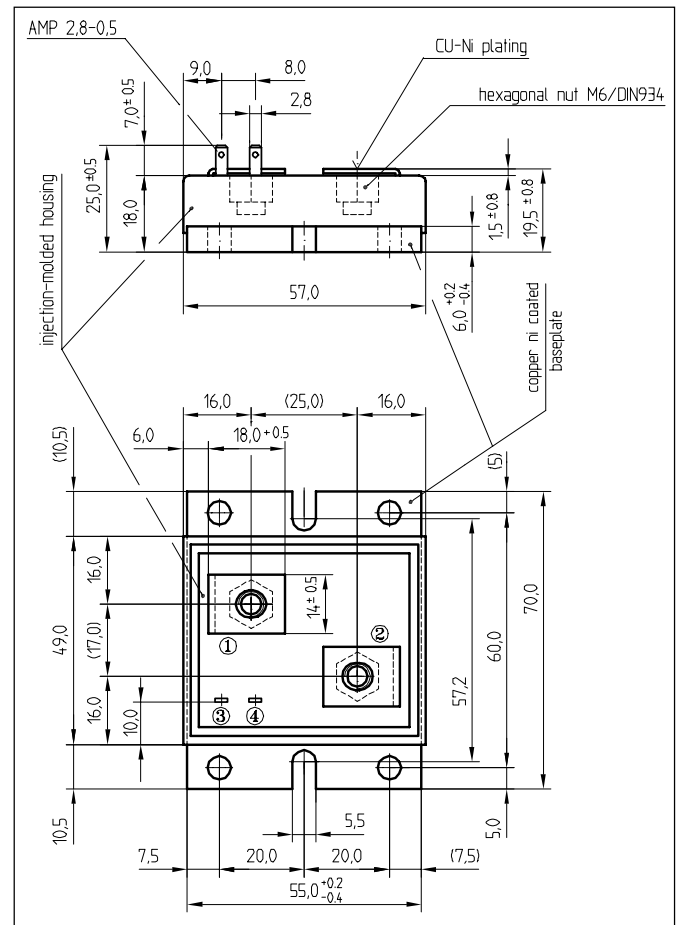
Pulses up to 1000 W are without detrimental effect based on the optimized geometrical design and temperature resistance of the adhesive.



Temperature dependence of the electrical resistance of ISA-PLAN resistors



power derating curve



dimensions ( mm )

( Technical modifications reserved )

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