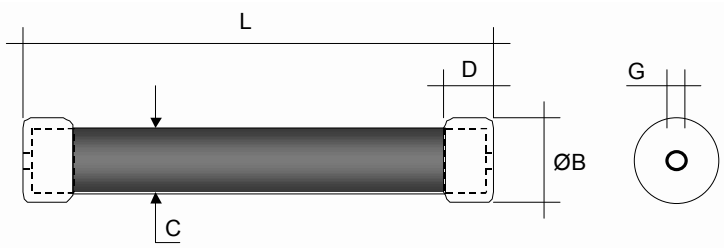
# Ultra High Voltage Power Resistors Series 1000
## Precision, Non-Inductive, Low TC

Ultra High Voltage Resistors Series 1000 combine proprietary non-inductive design with uniform voltage distribution to achieve low temperature coefficient, low voltage coefficients, high stability and increased operating voltages to 500 kV.

These Ultra High Voltage Resistors are designed to meet the demanding requirements of high voltage test systems, X-ray industrial systems, geophysical military instruments and HVDC power transmission lines.





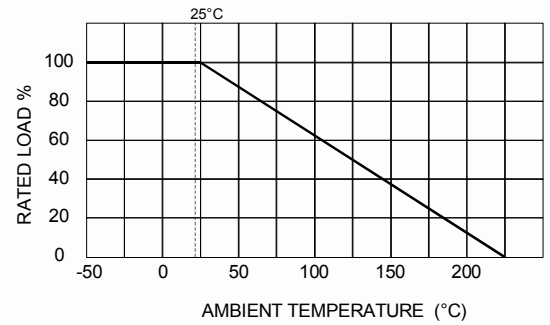
| Model | Wattage | Max. Operating Voltage | Dimensions in millimeters ± 3.00 [Dimensions in inches ± 0.12] | | | | |
|---|---|---|---|---|---|---|---|
| | | | L (max.) | B | C | D | G |
| **1000.150** | 150 | 200 kV | 470 [18.50] | 40.00 [1.58] | 38.00 [1.50] | 18.00 [0.71] | M8 |
| **1000.200** | 200 | 250 kV | 600 [23.62] | 40.00 [1.58] | 38.00 [1.50] | 18.00 [0.71] | M8 |
| **1000.250** | 250 | 300 kV | 800 [31.50] | 50.00 [1.97] | 48.00 [1.89] | 18.00 [0.71] | M8 |
| **1000.280** | 280 | 300 kV | 780 [30.71] | 62.00 [2.44] | 60.00 [2.36] | 18.00 [0.71] | M8 |
| **1000.300** | 300 | 400 kV | 1000 [39.37] | 50.00 [1.97] | 48.00 [1.89] | 18.00 [0.71] | M8 |
| **1000.350** | 350 | 400 kV | 1025 [40.35] | 62.00 [2.44] | 60.00 [2.36] | 18.00 [0.71] | M8 |
| **1000.400** | 400 | 500 kV | 1320 [51.97] | 62.00 [2.44] | 60.00 [2.36] | 18.00 [0.71] | M8 |

## Characteristics

| | | | |
|---|---|---|---|
| Resistance Values | from 1KΩ to as high as 100GΩ on all models (to 1TΩ on request) | | |
| Tolerances | 0.05%, 0.1%, 0.25%, 0.5%, 1%, 2%, 5%, 10% (0.05% avail. to 10G, 0.25% to 100G, other on request) | | |
| Temperature Coefficients * | 10, 15, 25, 50 and 100 ppm/°C (10 ppm/°C available to 10G, 25 ppm/°C to 100G, other on request) | | |
| Operating Temperature | -55 .. +225°C | (extended temperature range to 350°C available) | |
| Insulation Resistance | > 10'000 MΩ | 500 Volt 25 °C 75% relative humidity | |
| Dielectric Strength | > 1'000 Volt | 25 °C 75% relative humidity | |
| Thermal Shock | Δ R/R < 0.1% typ., 0.20% max. | MIL Std. 202, method 107 Cond. C | IEC 68 - 2 -14 |
| Overload | Δ R/R < 0.1% typ., 0.25% max. | 1,5 x Pnom, 5 sec (do not exceed max. voltage) | |
| Moisture Resistance | Δ R/R < 0.1% typ., 0.25% max. | MIL Std. 202, method 106 | IEC 68 - 2 - 3 |
| Load Life | Δ R/R < 0.1% typ., 0.25% max. | 1000 hours at rated power | IEC 115 - 1 |
| Encapsulation | Silicone Conformal Coating | Core Material | $Al_2O_3$ (96%) |
| Lead Material | Brass Caps (lug terminations avail.) | Resistor Material | Ruthenium Oxide |
| VCR | < -0.02 ppm/V for all models to 10 Gig (VCR = Voltage Coefficient of Resistance) | | |

* Temperature Coefficients referenced to 25°C, ΔR taken at +125°C

## Derating Curve





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