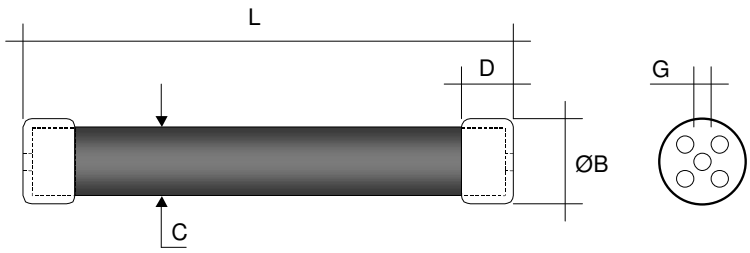
High Voltage Power Resistors Series 500
Precision, Non-Inductive, Low TC

High Voltage Power Resistors Series 500 combine proprietary non-inductive resistance system and design to achieve low temperature coefficient, low voltage coefficients, high stability, increased high operating voltages and high power ratings.

These Precision High Voltage Power Resistors are designed to meet the demanding requirements of TWT power supplies, electron microscopes, X-ray systems, high resolution CRT displays, geophysical instruments and power transmission lines.



Model	Wattage	Max. Operating Voltage	Dimensions in millimeters ± 1.00 [Dimensions in inches ± 0.04]				
			L (max.)	B	C	D	G
500.10	15.00	35'000	81.00 [3.19]	14.00 [0.55]	13.50 [0.53]	10.00 [0.40]	M4
500.20	25.00	80'000	156.00 [6.14]	14.00 [0.55]	13.50 [0.53]	10.00 [0.40]	M4
500.50	55.00	70'000	160.00 [6.30]	31.50 [1.24]	30.50 [1.20]	17.00 [0.67]	M8
500.70	75.00	100'000	210.00 [8.27]	31.50 [1.24]	30.50 [1.20]	17.00 [0.67]	M8
500.100	110.00	150'000	310.00 [12.20]	31.50 [1.24]	30.50 [1.20]	17.00 [0.67]	M8

Characteristics

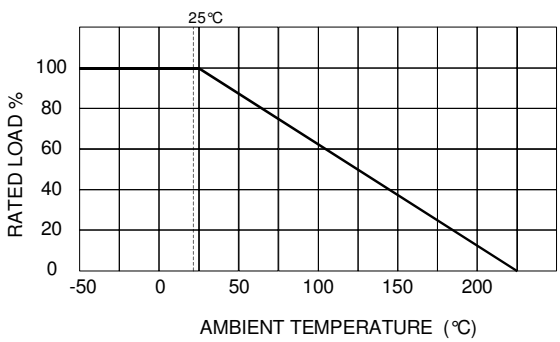
Resistance Values	from 1KΩ to as high as 100GΩ on all models (to 1TΩ on request)		
Tolerances	0.05%, 0.1%, 0.25%, 0.5%, 1%, 2%, 5%, 10% (0.05% avail. to 10G, 0.25% to 100G, other on request)		
Temperature Coefficients	5, 10, 15, 25, 50 and 100 ppm/℃ (10 ppm/℃ available to 10G, 25 ppm/℃ to 100G, other on request)		
Operating Temperature	-55 .. +225℃	(extended temperature range to 350℃ available)	
Insulation Resistance	> 10'000 MΩ	500 Volt 25 ℃ 75% relative humidity	
Dielectric Strength	> 1'000 Volt	25 ℃ 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., 0.50% 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

Voltage Coefficients of Resistance

Type	Resistance Range	VCR (-ppm/V)*
500.10	1K .. 1G5 1G5 .. 15G	< 0.09 < 0.18
500.20	1K .. 3G5 3G5 .. 35G	< 0.04 < 0.08
500.50	1K .. 2G5 2G5 .. 25G	< 0.04 < 0.07
500.70	1K .. 3G5 3G5 .. 35G	< 0.03 < 0.05
500.100	1K .. 6G 6G .. 60G	< 0.02 < 0.03

* typical values, contact factory for details

Derating Curve



Via Roncaglia 22, CH-6883 Novazzano, Switzerland
Fax: ++41 91 682 99 86 Phone: ++41 91 682 67 01