

# High Voltage Resistors

## ■ Structure

Screen printing ,resistor film printed layer with thickness of tens of microns, sintered at high temperature. The matrix is 95% aluminum oxide ceramic, with good thermal conductivity and high mechanical strength. The resistor film with precious metal ruthenium slurry, with stable electrical properties.

## ■ Features

Work under continuous high voltage environment.

Power Range : 8W-300W

Non-Inductive, Resistance-high voltage, small size, high power, long life, Moisture Resistance, High Stability.

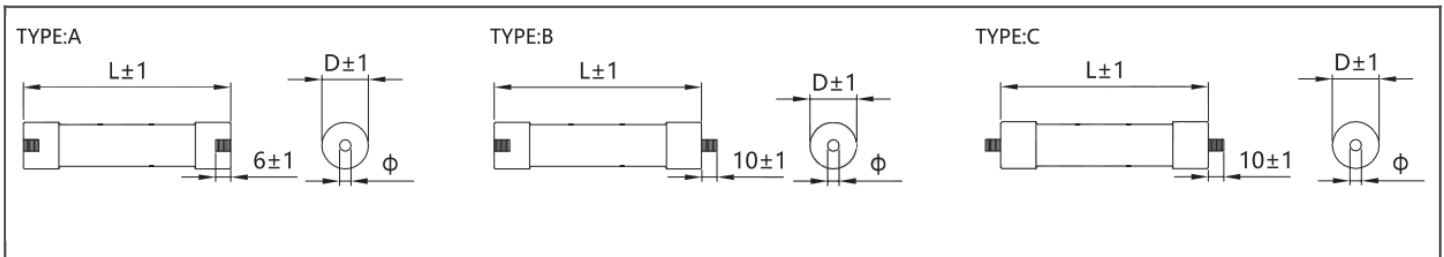
Leading Terminals : bolt/screw end caps

## ■ Application

Widely used in high voltage power equipment, medical CT and X-ray machines, high voltage testing equipment, high voltage power supply, environmental protection equipment, power system, high voltage instruments and meters, etc.



## DIMENSION



## GENERAL SPECIFICATIONS

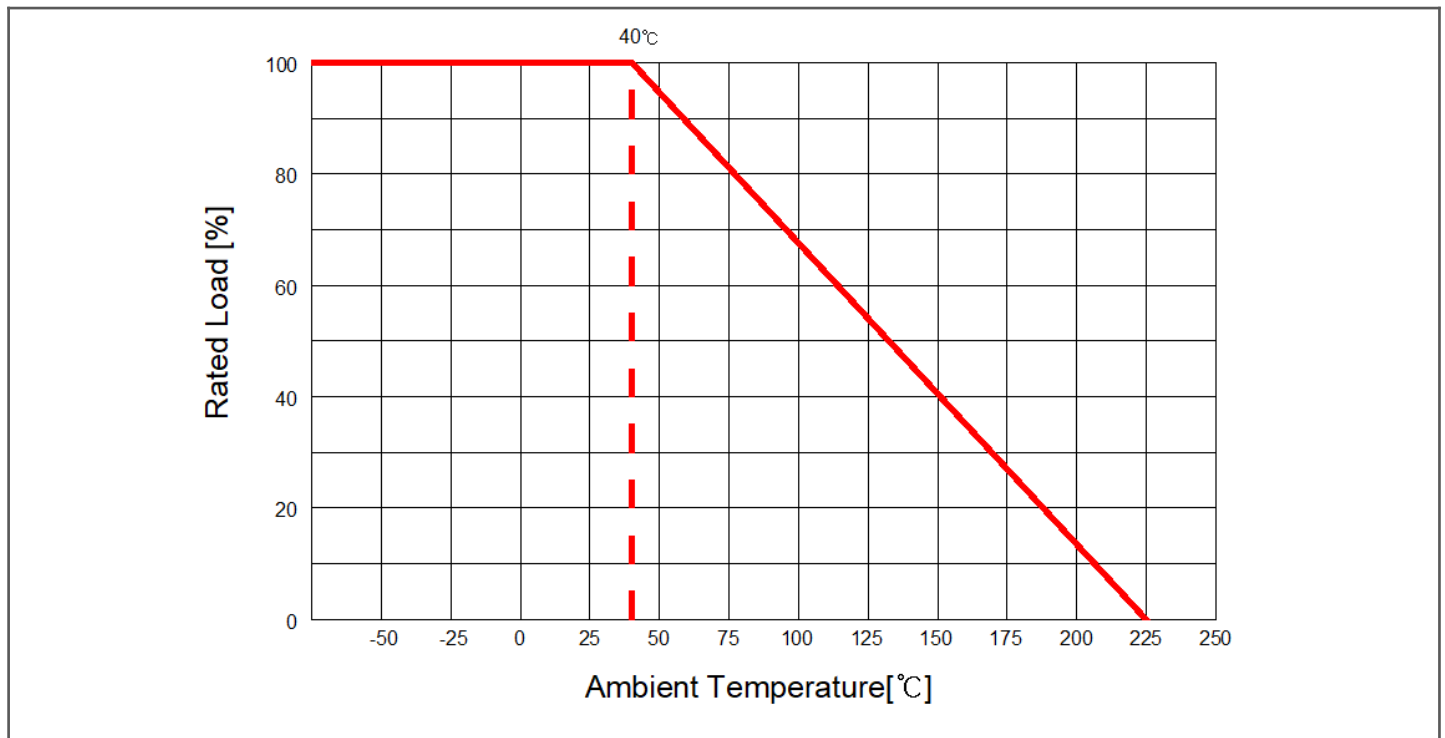
Model	Power	Resistance Range	Tolerance	Dimensions (mm)			Max. Voltage	Weight	T.C.R
				D±1	L±1	Ø±0.5			
HVR	8 W	10Ω-500MΩ	F (±1%) G (±2%) J (±5%) K(±10%)	11	100	M4	25 KV	26 g	±50 PPM ~ ±1000 PPM
	10 W	10Ω-500MΩ		11	147	M4	40 KV	38 g	
	20 W	10Ω-500MΩ		17	116	M6	30 KV	85 g	
	30 W	10Ω-500MΩ		19	116	M6	30 KV	95 g	
	50 W	20Ω-500MΩ		21	116	M6	30 KV	105 g	
	80 W	20Ω-500MΩ		28	130	M6	35 KV	180 g	
	100 W	20Ω-1GΩ		28	160	M6	45 KV	220 g	
	150 W	30Ω-1GΩ		28	210	M6	60 KV	290 g	
	200 W	40Ω-1GΩ		28	260	M6	60 KV	360 g	
	300 W	50Ω-1GΩ		33	310	M6	80 KV	492 g	

\* Note : Other on requests are available.

## CHARACTERISTICS

Test	Test Method	Results
Resistance Tolerance	Testing Voltage ≤ 3V, Ambient Temperature 25°C	B--C--D---F---G---J---K
T.C.R	$\frac{R1-R0}{R0(T1-T0)} \times 10^6(\text{PPM}/^\circ\text{C})$ T0 : Room temperature T1 : Test temperature (100°C) R0 : At T0 Resistance R1 : At T1 Resistance	±50PPM ~ ±1000PPM
Short Time Overload	5 times rated power for 5 seconds, but not over 1.5 times continuous Vmax	$\Delta R \leq \pm(0.2\%R + 0.1\Omega)$
Insulation Resistance	1,000 Vdc	≥10GΩ 1minute
Load Life	At rated voltage, 90 minutes "On", 30 minutes "Off", total 1,000 hours	$\Delta R \leq \pm(0.5\%R + 0.1\Omega)$
Humidity Resistance	Temperature : 40°C±2°C, Humidity : 90%-95%, 240 hours	$\Delta R \leq \pm(0.4\%R + 0.1\Omega)$
High/Low Temperature	-55°C~+155°C for 2 hours, cycle for 5 times	$\Delta R \leq \pm(0.2\%R + 0.1\Omega)$
Operating Temperature	-55°C~+225°C	/

## DERATING CURVE



## ORDERING PROCEDURE EXAMPLE

<b>Model#</b>	<b>Power</b>	<b>Resistance Value</b>	<b>Tolerance</b>
HVR	300W	20M	J