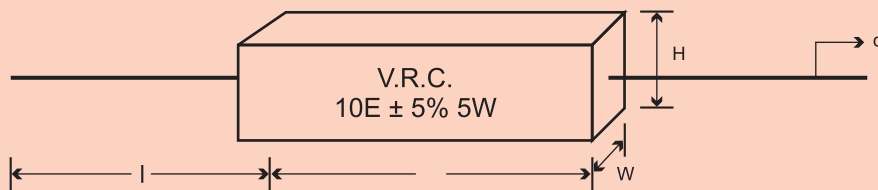
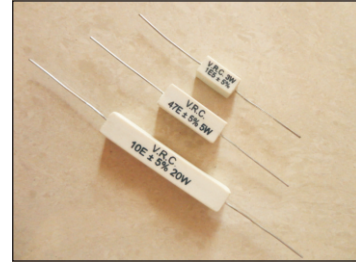


## WIRE WOUND RESISTORS (VCA - Series)

VAIBHAV RESISTORS CO.

**V R C**

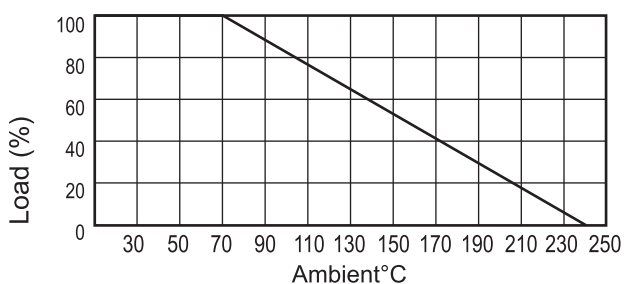
- High Grade Ni-Cr Wire Wound Element on Ceramic Core
- Encased in Ceramic & sealed with Flame proof of Silicon Cement
- Super Heat dissipation & Lower Temp. Co-efficient
- Flame Proof & Non Combustibles
- High Surge withstanding capability
- Standard tolerance 1%, 2% & 5% Available



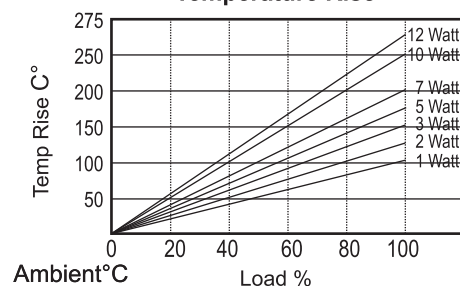
Dimensions (in mm)

Type	Watt	L ±0.50	W ±0.50	Lead ld ±2.0	Lead dia ±0.02	Maximum Working Voltage	Resistance Value
VCA-2	2W	15.0	6.0	28.0	0.8	150DC/PMS	0.01E-100K
VCA-3	3W	15.0	7.0	28.0	0.8	350DC/PMS	0.01E-100K
VCA-4	4W	20.0	9.0	28.0	0.8	350DC/PMS	0.01E-100K
VCA-5	5W	25.0	9.0	28.0	0.8	350DC/PMS	0.01E-100K
VCA-6	6W	28.0	9.0	28.0	0.8	500DC/PMS	0.01E-100K
VCA-10	10W	38.0	9.0	28.0	0.8	750DC/PMS	0.01E-100K
VCA-12	12W	40.0	9.0	28.0	0.8	750DC/PMS	0.01E-100K
VCA-15	15W	45.0	9.0	28.0	0.8	1000DC/PMS	0.01E-100K
VCA-20	20W	52.0	12.0	28.0	0.8	1000DC/PMS	0.01E-100K
VCA-25	25W	55.0	12.0	28.0	0.8	1000DC/PMS	0.01E-100K

Power Derating Curve



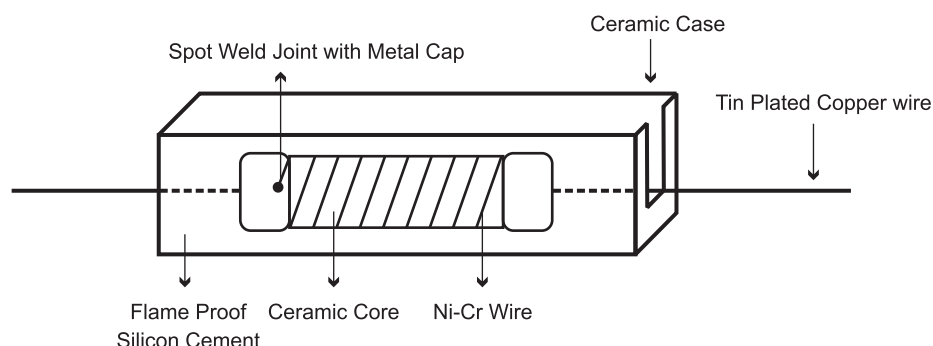
Temperature Rise



Note : Customised variations available on request.

Characteristics	Test Methods	Limits
D C Resistance	Resistors are tested with standard specified voltages for its Ohmic values to check the specified tolerance.	The Resistors shall be within specified tolerance limits.
Short Time Overload	The Resistors shall be subjected to 3 times the Rated Wattage for a duration of 5 secs.	$\Delta R \% = \pm 3.0\%$ (+ 0.05 $\Omega$ )
Temp-Coefficient	The Resistors shall be subjected to 3 times i.e. one At Ambient & the final at Amb + 100°C. The TCR is then Calculated as : $\frac{R_2 - R_1}{R_1} \times \frac{1}{t_2 - t_1} \times 10^6 = \text{ppm}/^\circ\text{C}$	PPM
		300 PPM Lower ppm on request
Rated Load	A Rated Continuous Working Voltage or Maximum Wkg. Voltage whichever less shall be applied to the resistors for a duration of 2 Hrs.	$\Delta R \% = \pm 2\%$ Max
Solderability	A Solder bath is maintained at 230°C. The specimen leads are immersed in the bath & withdrawn within 3 secs. A suitable flux is used during the test.	A fresh solder shall cover the specimen leads by Min. 95% coverage.
Resistance to Solder Heat	A Solder bath is Maintained at 350°C. The specimen leads are Subjected to the bath for a duration of 10 secs.	$\Delta R \% = \pm 1\%$ Max
Resistance to Solvents	The specimen shall be subjected to IPA for a duration of 1 min. 10 strokes of hard brush shall be applied. The test shall be conducted 3 times.	The marking shall remain legible.
Incombustibility	The resistors shall be subjected to 6 times the rated wattage for a duration of 5 min.	The resistors shall not catch flame.
Resistance to Solder Heat	Pull Test: The resistors leads shall be pulled using 5 N force Bend Test: The resistors leads are bend through 180° three times.	There shall be no damage.
Load Life	The specimen shall be subjected to an ambient of 70°C for a duration of 1000 Hrs. The specimen shall also be loaded for full power dissipation. The duty cycle shall be 1½ Hr. On & ½Hr. Off.	$\Delta R \% = \pm 5\%$ Max
Steady State Humidity	The shall be subjected to an amb. of 40°C with RH as 95%, for a duration of 56 days. A small DC voltage shall be so applied that the specimen shall dissipate 1% of the rated power.	$\Delta R \% = \pm 5\%$ Max

## Construction


**VRC**

## VAIBHAV RESISTORS CO.

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