Series VP \& VK
25, 50, 100, 160-175, 200-225 Watt
Fixed Power, Wirewound Resistors

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## Description

The VP and VK series are for applications requiring high power resistors. These resistors have lug terminals, which are solderable, and they can be bracket mounted. Made in accordance to Mil-R-26 standards, the VP and VK series are suitable for rugged applications.

## Features

-Rugged vitreous coating
-High wattage applications

## -All-welded construction

-Meets or exceeds MIL-R-26
-Non-inductive winding available

Series VP \& VK Material Specifications

## Coating

Vitreous enamel
Core
Tubular ceramic

## Terminals

Tinned, lug terminals, solderable to MIL-R-26 standards
Weight

| VP25K | VP50K | VK100N | VK160W | VK200W |
| :--- | :--- | :--- | :--- | :--- |
| 25 watt | 50 watt | 100 watt | 160 watt | 200 watt |
| .816 oz. | 1.312 oz. | 3.2 oz. | 7.12 oz. | 11.84 oz. |
| 22.8 gms. | 36.7 gms. | 89.6 gms. | 199.4 gms. | 331.5 gms. |

Series VP \& VK Electrical Specifications
Resistance Tolerance
$\pm 5 \%$ standard
Closer tolerances available.
Power Rating
$\underline{\text { Based on } 25^{\circ} \mathrm{C} \text { free air rating }}$

| Series | Minimum <br> Wattage | Maximum <br> Wattage |
| :--- | :---: | :---: |
| VP25K | 25 | N/A |
| VP50K | 50 | N/A |
| VK100N | 100 | N/A |
| VK160W | 160 | 175 |
| VK200W | 200 | 225 |
| N/A $=$ Not Applicable |  |  |

## Figure 1

Series VP \& VK Derating


AMBIENT TEMPERATURE IN DEGREES CENTIGRADE

Electrical Specifications continued
Overload
10 times rated wattage 5 seconds
Temperature Coefficient
$\pm 100 \mathrm{ppm} /{ }^{\circ} \mathrm{C}$ (Closer TC available)
Dielectric Withstanding Voltage
1000 Vac when dual wattage shown:
Lower wattages have max hotspot $275^{\circ}$
Higher wattages have max hotspot $350^{\circ}$

Figure 2


* Maximum Dimensions
** Dimensional Tolerance: $\pm .0313^{\prime \prime}$

Series VP \& VK Standard Resistance Values

## Stock Values

| 25 WATT | VP25K |  |  |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 25 | 500 | 3 K | 15 K | 60 K |  |  |  |  |  |  |
| 2 | 50 | 750 | 3.5 K | 20 K | 70 K |  |  |  |  |  |  |
| 3 | 75 | 800 | 4 K | 25 K | 80 K |  |  |  |  |  |  |
| 4 | 100 | 1 K | 5 K | 30 K | 100 K |  |  |  |  |  |  |
| 5 | 150 | 1500 | 6 K | 35 K |  |  |  |  |  |  |  |
| 10 | 200 | 2 K | 7.5 K | 40 K |  |  |  |  |  |  |  |
| 15 | 250 | 2.5 K | 10 K | 50 K |  |  |  |  |  |  |  |
| 50 WATT |  | VP50K |  |  |  |  | 75 | 750 | 4 K |  | FIXED |
| 1 | 100 | 800 | 5 K | 25 K | 150 K |  |  |  |  |  |  |
| 2 | 150 | 1 K | 6 K | 30 K | 175 K |  |  |  |  |  |  |
| 3 | 200 | 1.25 K | 7.5 K | 35 K | 225 K |  |  |  |  |  |  |
| 4 | 250 | 1.5 K | 8 K | 50 K | 250 K |  |  |  |  |  |  |
| 5 | 300 | 2 K | 10 K | 75 K |  |  |  |  |  |  |  |
| 10 | 400 | 2.5 K | 12 K | 100 K |  |  |  |  |  |  |  |
| 25 | 500 | 3 K | 15 K | 125 K |  |  |  |  |  |  |  |
| 50 |  |  |  |  |  |  |  |  |  |  |  |


|  |  | VK100N |  |  | FIXED |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 25 | 200 | 1.5 K | 7.5K | 40K |
| 2 | 50 | 250 | 2K | 10K | 50K |
| 3 | 75 | 300 | 2.5 K | 15K | 60 K |
| 4 | 100 | 500 | 3K | 20K | 75K |
| 5 | 125 | 750 | 4K | 25K | 100K |
| 10 | 150 | 1 K | 5 K | 30K | 200K |
| 175 WATT |  | VK160W |  |  | FIXED |
| 1 | 25 | 250 | 3 K | 20K | 75 K |
| 2 | 50 | 500 | 5K | 25K | 100K |
| 3 | 75 | 1 K | 7.5K | 30K |  |
| 4 | 100 | 1.5 K | 10K | 40K |  |
| 5 | 125 | 2K | 12K | 50K |  |
| 10 | 150 | 2.5 K | 15K | 60K |  |
| 225 WATT |  | VK200W |  |  | FIXED |
| 1 | 25 | 250 | 2.5 K | 15K | 100K |
| 2 | 50 | 500 | 3K | 20K |  |
| 3 | 75 | 750 | 5K | 25K |  |
| 4 | 100 | 1 K | 7.5K | 30K |  |
| 5 | 150 | 1.5K | 10K | 50K |  |
| 10 | 200 | 2K | 12K | 75 K |  |

Note:
Special resistance values available; consult factory.
Mounting brackets sold separately.

| Series | Bracket Number |
| :--- | :---: |
| VP25K | K-100 |
| VP50K | K-100 |
| VK100N | $\mathrm{N}-100$ |
| VK:160W | $\mathrm{W}-100$ |
| VK200W | $\mathrm{W}-100$ |

## Series VP \& VK How To Order

Series/Wattage + Resistance Value $=$ Part Number
Example:
25 watts at 1 ohm $=$ VP25K-1

