

Type HPV Series

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Tyco Electronics is the leading Fucue and supplier of standard and custom designed aluminium housed resistors for general-purpose use, power supplies, power generation and the traction industry.

The HPV is a range of extremely stable high quality wire wound resistors capable of dissipating high power in a limited space with relatively low surface temperatures. The power is rapidly dissipated as heat through the aluminium housing heat through the aluminium housing to a specified heat sink. The element assembly is housed within an aluminium extrusion and is insulated by a mineral material, providing better pulse handling capabilities. The HPV resistors have been designed for the power generation industry but are increasingly finding applications in locomotive and other industrial markets where high power, long life and exacting pulse requirements are key design parameters. The resistors are made from quality materials for optimum reliability and stability. Tyco Electronics can test

stability. Tyco Electronics can test resistors to conform to relevant inter-national, MIL or customer specifications

trons. Tyco Electronics is happy to advise on the use of resistors for pulse applications and to supply information for high voltage use and low-ohmic value and alternative tronsient page. termination types.

Key Features

- Up to 1000W power dissipation
 - Use a single resistor in applications where multiples were used before
- High pulse energy absorption
 - · Mineral filled to handle up to 7000joules
- 6.5kV voltage isolation Meets tough specifications with a factor of safety
- Proven reliability
- 1000Watts with HS reliability
- Custom designs:
 - Windings, terminations We have a solution for
- your application

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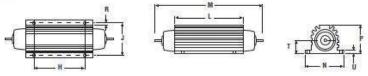
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PRODUCT PLANNED FOR EOL LTB 18/08/23

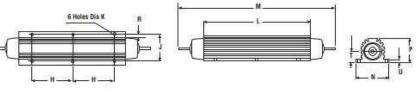
Characteristics -Electrical

		HPV500	HPV1000			
Dissipation @ 25°C with He	atsink (Watts) (Maximum continuous):	500	1000			
Without Heatsink:		100	200			
Ohmic Value Min (Ohms):		0R5	1R0			
Max:		33K	50K			
Limiting Element Voltage (\	/olts) (DC/AC rms)	2.5kV	2.5kV			
(For continuous operation):						
Dielectric Strength (Volts) (AC rms):	6.5kV	6.5kV			
Pulsed Voltage (Volts) (1.2/	'50ms):	12kV	12kV			
Insulation Resistance @ 50	0V (Ohms>10GΩ):	>10GΩ				
Stability (% resistance char	ige, 1000 hours)(%):	≤ 2%	≤ 2%			
Temperature Coefficient (pp	om/°C):	<±100ppm/°C	<±100ppm/°0			
Environmental Category:		-55/200/56	-55/200/56			
Creep (mm):		43Min	43Min			
Clearance (mm):		20Min	20Min			
Long Term Stability:	For improvements in long-term stability, resistors must be derated as follows					
	for 50% of stated AR maximum dissipation must not exceed 70% of rating:					
	for 25% of stated AR maximum, dissipation must not exceed 50% of rating.					
Heat Dissipation:	Although the use of proprietary heat sinks with lower thermal resistance is					
	acceptable, up rating is not recommended. The use of proprietary heat sink					
	compound to improve thermal conductivity is essential.					





HPV1000



Туре	H±0.3	J±0.4	K±0.3	L Max	M Max	N Max	P Max	R Min	T±0.3	U Min
HPV500	76.2	63.5	5.8	136.0	225.0	78.0	58.0	4.0	27.0	5.8
HPV1000	97.0	63,5	5.8	255.0	365.0	78.0	58.0	4.0	27.0	5.8

Balancing

- High Voltage
- Filter

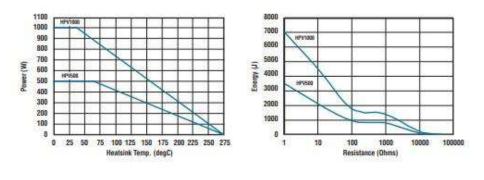
Applications

- Crowbar
- Braking
- **Capacitor Charging &** Discharging
- Electrical Machinery

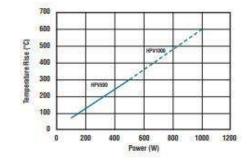


Derating Curve

Pulse Energy



Surface Temperature Rise





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