

Custom Resistor Assemblies

Overview



- Extreme Energy, Voltage, Power
- Engineered to Your Needs
- Rapid Design Turnaround

When your application demands extremes of Energy, Voltage or Power, our *Custom Resistor Assemblies* may be the answer. We integrate our disc resistors into multi-disc assemblies, engineered to meet your requirements; energy to Mega-joules, average power to hundreds of Kilo-watts and voltage to hundreds of Kilo-volts.

We quickly package an economical solution to your tough resistor applications in

- Voltage clamping,
- Capacitor charge / dump,
- High power snubbers
- High voltage pulsed power

Assembly voltage and energy surge ratings are the sum of the individual disc ratings. See our *High Energy Disc Resistors* technical data sheet for ratings and available geometries.

I-Series Compact Assemblies

Applications for high voltage or energy surges in the range of 10s of Kilojoules at low average power are the domain of the *I-Series*, ferrule-end stacks. These integrate disc resistors in series to create a single reliable and economical component. Several styles of ferrule terminations provide a clean profile suitable for high voltage and interface easily to our high voltage endcaps for termination and mounting.

J-Series Large Assemblies



J-series stacks employ heavy-duty components for mechanical mounting, electrical isolation and termination. These units can combine disc resistors in series or parallel, yielding ratings to thousands of kilojoules of single-surge energy



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K-Series Convection-cooled Assemblies



The K-series integrates metal fins into the disc resistor stack to improve forced or free air convection cooling, obtaining a higher average power rating. This technique also reduces cool-down time in crowbar or dump applications when repetitive operations is a requirement.

H-Series Liquid-cooled Assemblies



The H-series use liquid cooling to achieve surge duty at very high average power. Our special techniques and materials for disc-to-heat sink interface achieve high power density at a low cost-per-kilowatt.

With typical power density of 500 Watts per disc, arrays can be configured in series/parallel arrangements to hundred of kilowatts

Unique Solutions



Your unique resistor problem demands a unique solution!

When the application calls for extreme combinations of surge energy, peak power, high voltage or minimum inductance, a custom-engineered solution based on our *High Energy Disc Resistors* can provide the compact, economical answer. Our engineering team has unmatched experience and thorough understanding of high voltage / high energy resistor applications.

We've provided hundreds of custom solutions for:

- Traction drives
- Power quality equipment
- Industrial AC/DC motor drives
- Switchgear
- Pulsed power systems

Drop your tough, high energy resistor problem onto our design team. Contact engineering@hvrapc.com