Diversified Technologies, Inc.

Systems In Action



Free-standing 50 kV, 200 kW switching power supply. Enclosure is 24"w x 36"d x 60"h.

PowerMod™ Power Supplies		
Model	Maximum Voltage	Avg. Power
HVPS 100	5 kV - 200 kV	100 kW
HVPS 250		250 kW

HIGH VOLTAGE POWER SUPPLIES

PowerMod™ high voltage power supplies (HVPS) offer advanced high voltage power conditioning for demanding research and manufacturing applications. DTI incorporates the latest advances in solid-state switching technology into efficient and compact designs. High efficiency and a small footprint allow DTI power supplies to significantly reduce facility and cooling costs.

PowerMod high voltage power supplies are ideal for applications such as magnetron heating, lasers, electron beams, and RF transmitters. They offer typical voltage regulation to \pm 0.1% and maximum voltage ripple of < 0.1%. Regulation to 0.01% and ripple < 0.001% are available, if required. Supplies are available up to 250 kW average power, at voltages up to 200 kV, and they can be paralleled for higher output power. Custom designs are also available for applications outside of this range.

When combined with a DTI solid-state switch, the HVPS offers very fast response to arcs, limiting arc energy while the power supply remains at full voltage. Power can be restored immediately after the arc clears, or, if the arc clears quickly enough, operation will continue uninterrupted.

DTI high voltage power supplies use front panel controls and rear panel connectors that enable local or remote control, with internal overcurrent, overvoltage, and fault protection. All control systems are fully isolated from the EM effects of high voltage switching via noise-immune fiber-optic interfaces. Component inputs and outputs are fully protected against overvoltages, fast transients, and short circuits, for reliable operation with demanding loads.



Eight 200 kW shipboard DTI PowerMod™ Power Supplies and 480 VAC power distribution providing 1.6 MW DC power for a radar transmitter.

High Voltage Power Supplies



Custom DTI 400 kV, 400 mA DC Power Supply.

All PowerMod[™] power supplies are available in custom configurations to meet your specific system requirements. Integrate your PowerMod power supply with a DTI PowerMod Pulse Modulator for the best choice in complete pulse power systems.

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Drawing on decades of experience and expertise with high power technologies in applications ranging from radar transmitters to particle accelerators, DTI produces systems recognized globally for:

- Efficiency. > 93%, depending on the load.
- Durability. Rugged design for years of reliable operation.
- **Safety.** Redundant fail-safes and fast over-voltage and over-current protection of the load.
- **Compatibility.** DTI's systems are fully customizable to seamlessly integrate into existing systems.

Systems In Action



PowerMod™ Compact Power Supply.
Providing similar average power as the free-standing supply, this supply was optimized for an order of magnitude increase in power density.



Located in Greater Boston, DTI employs a dynamic team of electrical, mechanical, and aeronautical engineers, physicists, and system analysts with decades of experience designing and developing multi-megawatt solidstate power supplies, modulators, and advanced military radar systems.









