

5000W, Industrial Quality, Redundant DC/DC Converter System BAP 5K Series

- 19" Rack- or chassis-mount, 3U
- Rugged, industrial quality
- Fan cooling
- Full electronic protection
- Field-proven design
- Redundant, modular



3U7 Chassis-mount



3U7 Rack-mount

The BAP 5K Series is a modular, industrial quality DC/DC converter system that uses a field technology to deliver up to 5000W output power, depending on the input/output configuration. It is a mature design with a track record in numerous applications. The fully loaded shelf can hold up to seven internal modules, which also provide inherent redundancy; the failure of one module would only cause a minor loss in output power. Several shelves can be paralleled for higher output power. Multiple output versions can also be achieved by combining various internal modules. Full electronic protection eliminates failure due to abnormal operational conditions, including application errors. The system has input and output filtering in compliance with EN 55022 EMI standards. Built-in fans provide sufficient airflow for operation without de-rating to the specified temperature. Low component count, large design headrooms, and the use of components with established reliability result in a high MTBF. Additional ruggedizing and conformal coating are available for operation in humid environments. Other options include module fail alarm, extended temperature ranges and remote shut down. The series is manufactured at our plant under strict quality control.

SPECIFICATIONS

<p>Input Voltage 24Vdc, 48Vdc, 125Vdc \pm 15% are standard. Contact factory for other inputs</p>	<p>Output Voltage Any DC output from 12V to 300Vdc Consult factory for other outputs</p>	<p>Efficiency 75 - 94% depending on input/Output configuration</p>	<p>Indicators None Available as option</p>
<p>Input Protection Inrush current limiting. Reverse polarity protection Varistor Internal safety fuse Lower voltage than specified minimum input will not damage unit</p>	<p>Redundancy diodes Installed on each internal module for separation and redundancy</p>	<p>Operating Temperature 0°C to +50°C with built-in fan cooling. Extended temperature range available</p>	<p>Control Input None Available as option</p>
<p>Input Isolation Depends on the required input/output Combination. At minimum: 1000Vdc input to chassis 1500Vdc input to output 500Vdc output to chassis</p>	<p>Line/Load Regulation \pm1% to \pm2% combined depending on output voltage</p>	<p>Temperature Drift 0.03% per °C over operating temperature range</p>	<p>Alarm Outputs Not on standard version Optional module fail alarm or output fail alarm</p>
<p>Standards Designed to meet EN60950 and related standards</p>	<p>Dynamic Response Max 5% voltage deviation for 10% to 50% load step, with better than 1msec recovery time</p>	<p>Cooling Forced air by high-quality built in fans</p>	<p>Package/Dimensions (H x W x D) <u>Chassis-mount:</u> 3U7: 132 x 432 x 407mm (5.2" x 17" x 16") including connectors <u>Rack-mount:</u> 3U7: 132 x 483 x 407 mm (5.2" x 19" x 16") including connectors</p>
<p>EMI EN 55022 Class A with margins Class B filtering as option</p>	<p>Output Ripple/Noise Better than 1% of output voltage peak to peak or 0.2% RMS of the output voltage (20MHz BW)</p>	<p>Environmental Protection Basic ruggedizing Optional heavy ruggedizing and conformal coating is available</p>	<p>Weight Approx. 14 kg (30 lb)</p>
<p>Switching Frequency 55kHz +/- 3kHz</p>	<p>Overload Protection Current limiting with short circuit protection Self-resetting thermostat for thermal protection</p>	<p>Shock/Vibration IEC61371 Cat 1 A&B</p>	<p>Connections Terminal blocks or threaded studs. Other connectors according to customer requirements</p>
	<p>Output Overvoltage Protection Double regulator loop</p>	<p>Humidity 5 - 95% non-condensing</p>	<p>RoHS Compliance Fully compliant</p>
		<p>MTBF 150,000 hours @ 45°C per internal module. Demonstrated MTBF is significantly higher.</p>	<p>Warranty Two years subject to application within good engineering practice</p>

Enhancements to these general specifications and customizing can be accommodated upon request. Specifications are subject to change.

Designer and manufacturer of quality converters, inverters, UPS systems, complete rack mount systems and DC-input fluorescent lamp inverters since 1982. Custom or standard. Absopulse is a BABT-approved Facility.



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