

## 1500W, Rugged Industrial Quality DC/DC Converter BAP 765F-FT



- Rugged industrial quality
- Single regulated and adjustable output
- Full electronic protection
- Fan cooling
- N+1 redundancy available

The BAP 765F Series rugged, industrial quality DC/DC converter uses established design techniques to deliver up to 1500W output power, depending on the input/output configuration. This series offers a range of input and output voltages. Cooling is by built-in fans, with additional conduction via baseplate. Full electronic protection, low component count, large design headroom, and the use of components with established reliability result in a high MTBF. An optional built-in redundancy diode allows for parallel and N+1 operation. Additional ruggedizing and conformal coating are available for applications requiring higher immunity to shock, vibration and humidity. This series is manufactured at our plant under strict quality control.

### SPECIFICATIONS

<p><b>Input Voltage</b> 125Vdc (105 - 145Vdc) as standard. Lower inputs with reduced power on request</p> <p><b>Input Protection</b> Inrush current limiting. Reverse polarity protection Varistor Internal safety fuse Lower voltage than specified minimum input will not damage unit</p> <p><b>Input Isolation/Safety</b> 2250Vdc input to chassis 2250Vdc input to output 500Vdc output to chassis</p> <p><b>Standards</b> Designed to meet EN60950 and corresponding UL and CSA standards</p> <p><b>EMI</b> EN55022 Class A with margins</p> <p><b>Switching Frequency</b> 55KHz +/- 3KHz</p>	<p><b>Output Voltages</b> 24V/60A; 36V/40A; 48V/30A; 72V/20A; 96V/15A or 120V/12A are standard Consult factory for other voltages and output currents</p> <p><b>Redundancy Diode</b> Available as an option</p> <p><b>Line/Load Regulation</b> ± 1% combined</p> <p><b>Dynamic Response</b> Max 5% voltage deviation for 10% to 50% load step, with better than 2msec recovery time</p> <p><b>Output Ripple/Noise</b> Better than 1% of output voltage peak to peak or 0.2% RMS of the output voltage (20MHZ BW)</p> <p><b>Overload Protection</b> Rectangular current limiting with short circuit protection Thermal shutdown with automatic reset in case of insufficient airflow</p> <p><b>Output Overvoltage Protection</b> Double regulator loop</p>	<p><b>Efficiency</b> Input voltage dependent Typically 85% at full load</p> <p><b>Operating Temperature</b> 0 °C to 50 °C for full specification without derating Extended temperature ranges available</p> <p><b>Temperature Drift</b> 0.03% per °C over operating temperature range</p> <p><b>Cooling</b> Forced air by high quality built-in fans and conduction to customer heat sink or chassis. Fans draw air into the unit.</p> <p><b>Environmental Protection</b> Basic ruggedizing Heavy ruggedizing and conformal coating available as an option</p> <p><b>Shock/Vibration</b> IEC 61373 Cat 1 A&amp;B</p> <p><b>Humidity</b> 5 - 95% non-condensing</p> <p><b>MTBF</b> 130,000 hours @ 45 °C Demonstrated MTBF is significantly higher.</p>	<p><b>Indicators</b> None</p> <p><b>Alarm Output</b> None Available as an option</p> <p><b>Package/Dimensions (W x H x L) FF3:</b> 155 x 64 x 300 mm (6.1" x 2.5" x 11.8") including terminal block, flanges and fans</p> <p><b>Weight</b> 2.3 Kg (5 lbs)</p> <p><b>Connections</b> ¼ " brass studs or barrier type terminal block depending on the configuration</p> <p><b>RoHS Compliance</b> Fully compliant</p> <p><b>Warranty</b> Two years subject to application within good engineering practice</p>
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Input	Output	Power Estimate
24V	12V	750W
24V	24V	750W
24V	48V	750W
24V	125V	750W
21...29V range		
48V	12V	750W
48V	24V	1000W
48V	48V	1000W
48V	125V	1000W
42...56V range		

Input	Output	Power Estimate
72V	12V	750W
72V	24V	1400W
72V	48V	1400W
72V	125V	1400W
60...80V range		
125V	12V	750W
125V	24V	1500W
125V	48V	1500W
125V	125V	1500W
105...140V range		

I in max : 30A  
I out max: 60A  
P out max: 1500W  
Primary limitation: track, EMI filter  
Secondary limitation: track, output rectifier diode, output inductor



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