

# 500W, RUGGED CONVECTION/ CONDUCTION COOLED DC/DC CONVERTER BAP 319 SERIES

- Competitively priced
- Single regulated and adjustable output
- 500W output power
- Rugged industrial quality
- Full electronic protection
- Field-proven design in a wide range of applications
- N+1 redundancy available



The BAP 319 Series of DC/DC converters uses a field proven high frequency push-pull topology to generate 500W output power with convection/conduction cooling and 600W if forced air is available. For 700W output power, see the BAP 319F version with built-in fans. Any DC input/output configuration is possible. An optional redundancy diode allows for parallel connection to achieve higher output power or N+1 redundancy. This feature also makes the unit suitable for battery charging applications. The chassis-mount design features low component count and high efficiency. The use of high quality components and rigorous quality control results in a demonstrated MTBF exceeding 1,000,000 hours confirmed by a track record established in hundreds of applications. Additional ruggedizing and conformal coating are available for applications requiring higher immunity to shock, vibration, humidity, moisture, dust and insects. Other options include a Form C output fail alarm and remote shutdown.

## SPECIFICATIONS

**Input Voltage**  
Any DC input from  
24V to 125Vdc  
(12Vdc input with reduced power)

**Input Protection**  
Inrush current limiting  
Internal safety fuse  
Reverse polarity  
Lower voltage than specified  
input min. will not damage unit

**Input Isolation**  
Appropriate to the input/output  
configuration to meet safety  
standards

**Standards**  
Designed to meet EN60950 and  
related UL & CSA standards

**EMI**  
EN 55022 Class A as a minimum

**Switching Frequency**  
55kHz +/- 3kHz

**Output Voltage**  
Any DC output from 12V to  
125Vdc. Max. current: 40A

**Redundancy diode**  
Optional

**Line/Load Regulation**  
+/-1% combined

**Dynamic Response**  
Max 5% voltage deviation for 10%  
to 50% load step, with better than  
1msec recovery time

**Output Ripple/Noise**  
Better than 1% of output voltage  
peak to peak or 0.2% RMS of the  
output voltage (20MHZ BW)

**Output Overvoltage Protection**  
Double regulator loop

**Overload Protection**  
Current limiting with short circuit  
protection  
Self-resetting thermostat for  
thermal protection

**Efficiency**  
Min 80% at full load

**Operating Temperature**  
0 to +50°C with convection.  
Extended temperature range  
available

**Temperature Drift**  
0.03% per °C over operating  
temperature range

**Cooling**  
Convection and conduction  
cooling via base plate

**MTBF**  
200,000 hours @ 45 °C (calculated)  
Demonstrated MTBF exceeds  
1,000,000 hours at typical  
operating temperatures

**Indicators**  
Optional

**Control Input**  
Optional

**Alarm Outputs**  
Optional

**Environmental Protection**  
Basic ruggedizing  
Optional heavy ruggedizing and  
conformal coating is available

**Dimensions**  
F4: 5.1 x 13.82" x 2.63"

**Weight**  
4.4lb (2kg)

**Connections**  
12 pole barrier type terminal block  
with 3/8" spacing

**Warranty**  
Twelve months subject to  
application within good  
engineering practice

Enhancements to these general specifications can be accommodated upon request. Designed to meet common approval requirements

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 BAPT-approved Facility



**ABOPULSE ELECTRONICS LTD**  
110 Walgreen Road  
Ottawa, Ontario. K0A 1L0. CANADA  
Tel: (613) 836-3511 Fax: (613) 836-7488  
E-mail: [absopulse@absopulse.com](mailto:absopulse@absopulse.com)  
[www.absopulse.com](http://www.absopulse.com)