

500W, Rugged DC/DC Industrial Converter BAP 319-FT Series

- Rugged industrial quality
- Single regulated and adjustable output
- Full electronic protection
- Field-proven design in a wide range of applications
- N+1 redundancy available as option
- Plug-in (Eurocard) version available



The BAP 319 Series rugged, industrial quality DC/DC converter uses field-proven topology to generate 500W output power, or 600W if forced air is available. For 700W output power, see the BAP 319F version with built-in fans. This is a mature design with a track record in hundreds of applications. Cooling is via baseplate to a heatsinking surface and by natural convection. 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. It is manufactured at our plant under strict quality control.

SPECIFICATIONS

Input Voltage

Any single DC input from
12V to 125Vdc
(12Vdc input with reduced power)
Consult factory for other voltages

Input Protection

Inrush current limiting
Varistor
Reverse polarity protection
Internal safety fuse
Lower voltage than the specified
minimum input will not damage the
unit

Isolation

According to input voltage
minimum of:
1000VDC input to chassis,
1500VDC input to output,
500VDC output to chassis

Standards

Designed to meet EN60950 and
related standards.

EMI

EN 55022 Class A as a minimum

Switching Frequency

80KHz +/- 5KHz

Output Voltages

Any single DC output from
12V to 125Vdc (200W)
Consult factory for other voltages

Redundancy diode

Available as option

Line/Load Regulation

± 1% combined from zero load to
full load

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% Vrms
(20MHz BW)

Output Overload Protection

Rectangular current limiting with
hiccup mode short-circuit
protection.

Thermal shutdown in case of
insufficient cooling (self resetting)

Output Overvoltage Protection

Double regulator loop completely
stable and independent of main
loop

Efficiency

Typically 80% at full load
depending on input/output
combination

Operating Temperature Range

0 to + 60°C cold plate temperature
for full specification
Extended temperature ranges
available

Temperature Drift

0.03% per °C over operating
temperature range

Cooling

Conduction via base plate and
convection

Environmental Protection

Basic ruggedizing
Heavy ruggedizing and conformal
coating as option

MTBF

160,000 hours at 45 °C
Demonstrated MTBF is
significantly higher

Indicators

Optional

Control Input

Optional

Alarm Output

None on standard version

Package/Dimensions (W x D x H)

F4: 130 x 62 x 353 mm
(5.1 x 2.43" x 13.9)
including terminal block and flanges.
Mounting holes are clear

Weight

2.2 kg (4.9 lb)

Connections

9-pole barrier type terminal block,
3/8" spacing.

RoHS Compliance

Fully compliant

Warranty

Two years subject to application within
good engineering practice

Enhancements to these general specifications can be accommodated upon request. Specifications 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 AABT-approved Facility*

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