

60W to 180W, DC/DC Converters in Eurocard or Enclosed Format BAF 09-10, BAF 109-110, BAF 209-210 and BAB 210 Series

- Rugged industrial quality
- Versatility for customizing
- Single double or triple-output
- Conduction/convection cooled
- Field proven design

Model	Output W	Outputs	Package Size
BAF 09	60W	1 or 2	F1 or 3U x 160
BAF 10	60W	3	F1 or 3U x 160
BAF 109	100W	1 or 2	F2 or 3U x 220
BAF 110	100W	3	F2 or 3U x 220
BAF 209	100-150W	1 or 2	F2 or 3U x 220
BAF 210	100-150W	3	F2 or 3U x 220
BAB 210	120-180W	2 or 3	F2 or 3U x 220



This rugged, field proven series has served as a key product in the 60 - 180W range DC/DC conversion for two decades. The design was upgraded several times over the years and has an impeccable track record. The basic concept has remained the same; a flexible design that can easily be customized for almost any requirements without set-up/NRE costs and competitive production cost. The chart above is a short summary of the approximate capacities of the various units of the BAF/BAB 210 series. Due to the large design headrooms and very conservative design approach, the power limits can also be extended. For a more standard selection, our DCW Series is available. Low component count and the use of components with established reliability result in a high MTBF. Versions for N+1 redundant operation are available. Additional ruggedizing and conformal coating are also available for applications requiring higher immunity to shock, vibration and humidity. All units are manufactured at our plant under strict quality control. The following specifications are guidelines only.

SPECIFICATIONS

Input Voltage

Any DC voltage from 12V to 130Vdc.
24 or 48Vdc are standard.
Voltage tolerance: $\pm 20\%$ typical
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

Depends on the required input/output configuration. At a minimum:
500VDC input to chassis,
500VDC 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

100kHz +/- 10kHz

Output Voltages

Any DC voltage
Please consult factory

Redundancy diode

Available as option

Line/Load Regulation

$\pm 1\%$ 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% V_{rms} (20MHz BW)

Output Overload Protection

Current limiting with hiccup mode short-circuit protection
Models with constant current output are available

Output Overvoltage Protection

Double regulator loop, completely stable and independent of main regulator loop

Efficiency

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

Operating Temperature Range

0 to +50°C for full specifications.
Extended temperature ranges available

Temperature Drift

0.03% per °C over operating temperature range

Cooling

Eurocard (plug-in): convection only
Enclosed case: 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

Eurocard: LED status and optional front-panel adjustment
Enclosed: Green output ON LED visible through cooling slots

Control Input

None

Alarm Output

None on standard version
Form C available as option

Dimensions

Eurocard (plug-in module):
BAF09/10: 3Ux 160mm x 8-10HP
BAF109/110: 3Ux 220mm x 8-10 HP
BAF209/210: 3Ux 220mm x 8-12HP
BAB 210: 3Ux 220mm x 8-12HP
The front-panel width depends on output power and cooling
Special versions with 6HP and 4HP front-panel width are also available.

Enclosed case (F-package)

BAF09/10: F1: 4.43" x 2" x 7.9"
BAF109/110: F2: 4.43" x 2.25" x 10.1"
BAF209/210: F2: 4.43" x 2.25" x 10.1"
BAB 210: F2: 4.43" x 2.25" x 10.1"

Connectors:

Eurocard (Plug-in): H15 DIN
Enclosed case: terminal block

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 BABT-approved Facility



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