

200W, Rugged, Industrial Quality Plug-in DC-DC Converter Module BAP 236-EH Series



- Rugged industrial quality, Field-proven design
- 3U x 14HP x 220mm plug-in module
- Front panel adjustment & LED status
- Cooling by natural air convection
- Full electronic protection
- Hot swappable, N+1 redundant

This rugged, industrial quality DC-DC plug-in module with uses field proven topology to deliver up to 200W output power. It is a mature design with a track record in numerous heavy-duty applications. The module is hot-insertable and has a built-in redundancy diode which allows for parallel connection and N+1 redundant operation. A fail open type optocoupler output fail alarm is included. Cooling is by natural air convection. Heat generating components are installed on an aluminum heat-sink block which is connected to the large heat-sink on the side of each module. Full electronic protection, large design headroom and the use of components with established reliability contribute to high demonstrated MTBF. The module is manufactured at our plant under strict quality control. The unit is also available as a stand-alone chassis mount module in our F2 size package, the BAP 236-F2

SPECIFICATIONS

Input Voltage

24Vdc (21-30V)
48Vdc (42-60V)
125Vd (105-145V)
Other inputs on request

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 and output voltage minimum of:
1500Vdc input to chassis
2250Vdc input to output,
500VDC output to chassis

Standards

Designed to meet EN60950-1 and corresponding standards

EMI

EN 55032 Class A as a minimum

Switching Frequency

55kHz ± 3kHz

Output Voltages

12V/16A, 24V/8A, 48V/4.2A or 125V/1.6A
Output is floating; either terminal can be grounded
Other outputs on request

Redundancy diode

Installed internally
Hot insertion allowed

Line/Load Regulation

Typically ±1% combined from zero load to full load including redundancy diode

Dynamic Response

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

Output Ripple / Noise

Better than 0.2% RMS or 1% of output voltage peak to peak (20HZ BW)

Output Overload Protection

Rectangular current limiting with short-circuit protection (no hiccup)
Thermal shutdown in case of insufficient cooling (self -resetting)

Output Overvoltage Protection

Double regulator loop. Second loop completely stable and independent of main regulator loop

Efficiency

Typically 85% at full load depending on input/output combination

Operating Temperature Range

0 °C to + 50°C for full specification
Extended temperature ranges with derating

Temperature Drift

0.03% per °C over operating temperature range

Cooling

Natural air convection

Environmental Protection

Basic ruggedizing
Heavy ruggedizing and conformal coating as option

Shock/Vibration

IEC 61373 Cat 1 A&B

Humidity

5 - 95% non-condensing

MTBF

150,000 hours at 45 °C
Demonstrated MTBF is significantly higher

Indicators

On front panel of the module:
Green "Output ON" LED connected before redundancy diode

Control Input

Adjustment potentiometer on front-panel

Alarm Output

Module Fail alarm by optocoupler C-E fail open

Package/Dimensions (H x W x D)

3U x14HP x 220mm

Weight

1.2 kg (2.5 lb)

Connections

H15 DIN connector

RoHS Compliance

Compliant

Warranty

Two years subject to application within good engineering practice

Pin-out drawing: H15 connector

PinNo.	H15 DIN CONNECTOR	
4	GND	DC OUTPUT
6	NOT USED	
8	-	
10	-	
12	-	
14	NOT USED	
16	+	ALARM
18	+	
20	+	
22	E	
24	C	
26	-	
28	-	
30	+	
32	+	

Please note that ABSOPULSE power supplies are designed and built to customer specifications. The specifications on this data sheet are generic and will vary depending on input/output configuration and other customer requirements. Generic 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



ABSOPULSE ELECTRONICS LTD

110 Walgreen Road, Ottawa, Ontario. K0A 1L0. CANADA
Tel: +1-613-836-3511 | Fax: +1-613-836-7488

<https://absopulse.com/contact> | <http://www.absopulse.com>