

750-1000W, Rugged, Industrial Quality, Fan Cooled DC-DC Converter BAP 65F-F3W Series



- Rugged industrial quality
- Field-proven design
- Cooling by built-in fans
- Low noise output
- Full electronic protection
- N+1 redundancy as option

This rugged, industrial quality DC-DC converter has a proven track-record in numerous heavy-duty projects. It employs field-proven technology to generate up to 1000W output power, depending on input/output combination. An optional built-in redundancy diode allows for paralleling and N+1 operation or back-up battery connected. Cooling is by high quality built-in fans which draw air into the unit, and by conduction via the baseplate. All heat generating components are installed on aluminum heatsink blocks which are thermally connected to the base plate. This also ensures exceptional mechanical ruggedness. Additional ruggedizing and conformal coating are available for applications that require higher immunity to shock, vibration and humidity. Full electronic protection, low component count, large design headroom, and the use of components with established reliability result in a high MTBF. The unit is manufactured at our plant under strict quality control. Customized versions are available.

SPECIFICATIONS

Input Voltage

48Vdc (42-60V)
72Vdc (60-82V)
110Vdc (90-130V)
125Vdc (105-145V)
250Vdc (210-280V)
Other voltages and ranges are available 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

1500VDC input to chassis
2200VDC input to output
500VDC output to chassis

Standards

Designed to meet EN60950-1 and related standards

EMI

EN55032 Class A with margins

Switching Frequency

55kHz ±3kHz

Output Voltage

24V/40A, 48V/20A or 125Vdc/8A
Output is floating; either terminal can be grounded
Other outputs on request

Redundancy diode

Available as an 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 0.2% rms or 1% peak- to-peak of the output voltage (20MHz BW)

Overload Protection

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

Output Overvoltage Protection

Second 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

0° C to 50° C full specification
Extended temperature ranges available with de-rating

Temperature Drift

0.03% per °C over operating temperature range

Cooling

Forced air by two high quality built-in fans

Environmental Protection

Basic ruggedizing
Optional heavy ruggedizing and conformal coating is available

Shock/Vibration

IEC 61373 Cat 1 A&B

Humidity

5 - 95% non-condensing

MTBF

130,000 hours @ 45 °C (fans excluded)
Demonstrated MTBF is significantly higher.

Indicators

None on standard version
Available as option

Control Input

None on standard version
Available as option

Alarm Outputs

None on standard version
Available as option

Package/Dimensions (W x H x L)

F3W: 155 x 64 x 300 mm (6.1" x 2.5" x 11.8") including terminal block and flanges
Mounting holes are clear.

Weight

2.3kg (5 lbs)

Connections

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

RoHS Compliance

Compliant

Warranty

Two years subject to application within good engineering practice

Terminal Block Pin-out

DC INPUT			GND	DC OUTPUT							
+	-	⊥	NOT USED	NOT USED	NOT USED	-	-	+	+	NOT USED	NOT USED
1	2	3	4	5	6	7	8	9	10	11	12

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

OEM of industrial and railway AC/DC power supplies and battery chargers, DC/DC converters, DC-AC sine-wave inverters, phase & frequency converters, DC-output UPS systems and complete power systems in 19" and 23" racks since 1982. Custom & standard. ABSOPULSE is a BAPT-approved facility



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