

1000W, Rugged, Industrial Quality, Fan Cooled AC-DC Power Supply HBH 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 AC-DC converter has a proven track-record in numerous heavy-duty projects. It employs field-proven technology to generate up to 1000W output power for 230V input and output of 24Vdc and higher. 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. Conformal coating provides protection against humidity and airborne contaminants. Full electronic protection, low component count, large design headroom and the exclusive use of components with established reliability contribute to a high MTBF. The unit is manufactured at our plant under strict quality control.

SPECIFICATIONS

Input Voltage

230Vac $\pm 15\%$
or 300Vdc $\pm 15\%$
47 - 63Hz
(115Vac input versions available with derating to 500W)
Other inputs are available on request

Input Protection

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

Isolation

2250Vdc input to chassis
4300Vdc input to output;
8mm spacing
500Vdc output to chassis

Standards

Designed to meet EN60950-1 and related standards

EMI

EN 55022 Class A with margins

Switching Frequency

55kHz ± 3 kHz

Hold Up Time

Min. 5ms at any input for 5% drop in output voltage

Output Voltage

24Vdc, 48Vdc or 125Vdc
Output is floating; either terminal can be grounded
Other outputs on request

Redundancy diode

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

Double regulator loop completely stable and independent of main loop

Efficiency

Typically 80% 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
Conformal coating

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: 157 x 65 x 295 mm
(6.2" x 2.5" x 11.6") 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
Contamination related failures and shipping costs excluded.

Terminal Block Pin-out

OUTPUT						INPUT					
NOT USED	NOT USED	+	+	-	-	NOT USED	NOT USED	NOT USED	GND	N	PH
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

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 ABBT-approved Facility



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