

## 2000W Rugged, Industrial Quality AC/DC Power Supply HBL 2KF-FT Series



- Rugged, industrial quality
- Single phase 230Vac input
- Fan cooling
- Full electronic protection
- Field-proven design topology

This rugged, industrial quality AC/DC power supply uses field-proven topology to generate the required output power. It is a mature design with a track record in numerous applications. Cooling is by built-in fans, and additional conduction via base-plate. Optional additional ruggedizing and conformal coating are available for operation in extreme applications. 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.

### SPECIFICATIONS

#### Input Voltage

230Vac  $\pm 15\%$ ; 47-63Hz  
Other inputs on request

#### Input Protection

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

#### Input Isolation/Safety

2250VDC input to chassis  
4300VDC input to output  
8mm spacing  
500VDC output to chassis

#### Standards

Designed to meet EN60950 and corresponding standards

#### EMI

Meets EN 55022 Class A with margins

#### Switching Frequency

55 KHz +/-3KHz

#### Hold Up Time

Minimum 10ms at full load for 5% drop of output voltage @ 230V nominal input

#### Output Voltages

48Vdc/42A, 56Vdc/36A or 125Vdc/16A

Output is floating, either terminal can be grounded  
Other outputs on request

#### Redundancy Diode

None  
Available on customized versions; please verify with factory.

#### 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% RMS of the output voltage (20MHz BW)

#### Overload Protection

Rectangular current limiting with short circuit protection  
Thermal shutdown with automatic reset in case of insufficient airflow

#### Output Over-voltage Protection

Double regulator loop completely stable and independent of main loop

#### Efficiency

Min 80% at full load

#### Operating Temperature

0°C to +50°C cold plate temperature for full specification without derating

#### Environmental Protection

Basic ruggedizing  
Optional heavy ruggedizing and conformal coating

#### Temperature Drift

0.03% per °C over operating temperature range

#### Cooling

Forced air by built-in fans and additional cooling via base plate

#### Environmental Protection

Basic ruggedizing  
Heavy ruggedizing and conformal coating as option

#### Shock/Vibration

IEC61373 Cat 1 A&B

#### MTBF

Min. 160,000 hours @45°C (fan excluded)  
Demonstrated MTBF is significantly higher.

#### Indicators

None

#### Control Input

None on the standard version

#### Alarm Output

None on the standard version

#### Package/Dimensions (W x H x L)

FF6: 236 x 65 x 349 mm (9.28" x 2.55" x 13.75") including terminal block and flanges  
Mounting holes are clear

#### Weight:

3.6 kg (8 lbs)

#### Connections

Input: 3-pole barrier type terminal block with 13mm spacing  
Output: 12-pole barrier type terminal block with 9.5mm spacing

#### RoHS Compliance

Fully compliant

#### Warranty:

Two years subject to application within good engineering practice

#### Terminal Block Pin-Out

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

Enhancements to these general specifications and customizing can be accommodated upon request. 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  
E-mail: [absopulse@absopulse.com](mailto:absopulse@absopulse.com)  
<http://www.absopulse.com>