

# 500W, Rugged, AC/DC Industrial Power Supply with High Output Voltage HVC 319-FT Series

- Rugged industrial quality
- Single regulated and adjustable output
- Convection cooling
- Full electronic protection
- Field-proven design
- N+1 redundancy available



The HVC 319 Series heavy-duty, AC/DC industrial power supply uses a field-proven design to deliver 500W output power. It is a mature design with a track record in numerous applications. Cooling is by conduction via baseplate to a heatsinking surface and by natural convection. The unit features full electronic protection and low output noise. Low component count, large design headrooms, and the use of components with established reliability result in a high MTBF. Additional ruggedizing and conformal coating are available for operation in extreme environments. An optional built-in redundancy diode allows for parallel and N+1 operation. The unit is manufactured at our plant under strict quality control. Customized versions and fan-cooled versions with increased output power are also available.

## SPECIFICATIONS

### Input Voltage

115/230VAC +/- 15%  
47 - 63Hz  
Voltage selection by internal jumper

### Input Protection

Inrush current limiting  
Varistors  
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 and corresponding UL and CSA standards

### EMI

EN55022 Class A as a minimum

### Switching Frequency

55KHz +/- 3KHz

### Hold Up Time

Minimum 5ms at full load for 5% drop of output voltage at nominal input

### Output Voltages

125VDC/4A or 250VDC/2A are standard  
Consult factory for other voltages

### Redundancy Diode

Available as option

### Line/Load Regulation

± 1% combined from no 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

Less than 1% of output voltage peak to peak or 0.2% RMS of the output voltage (20MHZ 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 completely stable and independent of main loop

### Efficiency

Output voltage dependent.  
Typically 80% at full load

### Operating Temperature

0 to +50°C for full specification, Extended temp. range available

### Temperature Drift

0.03% per °C over operating temperature range

### Cooling

Conduction to customer heatsink or chassis and natural convection

### Environmental Protection

Basic ruggedizing  
Full ruggedizing and conformal coating as option

### Humidity

5 - 95% non-condensing

### MTBF

160,000 hours @ 45°C  
Demonstrated MTBF is significantly higher

### Indicators

None on standard version

### Control Input

None

### Alarm Output

None on standard version  
Available as option

### Package/Dimensions (WxHxL)

F4: 130 x 62 x 353 mm  
(5.1 x 2.43" x 13.9) including terminals and mounting flanges

### Weight

2.2 kg (4.9 lb)

### Connections

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

### RoHS Compliance

Fully compliant

### Warranty

Two years subject to application within good engineering practice

**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*



### ABOPULSE ELECTRONICS LTD

110 Walgreen Road  
Ottawa, Ontario. K0A 1L0. CANADA  
Tel: (613) 836-3511 Fax: (613) 836-7488  
E-mail: [absopulse@absopulse.com](mailto:absopulse@absopulse.com)  
[www.absopulse.com](http://www.absopulse.com)