

500VA Sine Wave Variable AC Power Source Rugged, Industrial Quality VFC 500 Series



- Variable output voltage and frequency
- Electronic power factor correction (PFC)
- Compact size, light weight
- Sinusoidal output voltage
- Digital meters for output voltage and frequency
- Isolated, floating output
- 500VA output power
- Full electronic protection
- Field-proven design topology

The VFC 500 Series is a variable AC power source designed to deliver power at a selectable frequency between 40Hz to 440Hz. The unit uses PWM technology and generates a sine-wave output with typical distortion of less than 5%. The output voltage is continuously adjustable from 0 to full scale. The input is power factor corrected.

The VFC 500 Series AC power source can be used as a compact AC/AC frequency converter, suitable for a wide range of applications. It features full electronic protection, high efficiency and low output noise. The unit is fan cooled. The use of components with established reliability results in a high demonstrated MTBF. The VFC 500 is manufactured at our plant under strict quality control. Customized versions are also available.

SPECIFICATIONS

Input Voltage

Universal 95 ... 264Vac
47 - 410Hz
Input current 6.6A rms max.

Power Factor

Min. 0.97 at full load for the entire input range. Meets EN61000-3-2

Input Protection

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

Input Isolation

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

Standards

Designed to meet
C22.2 No. 107.1 - 01,
UL 458 and EN60950

EMI

EN 55022 Class A
as a minimum

Output Voltage

0...264Vrms range; max. current
4Arms; max power 500VA

Output frequency

40 ...440Hz in one band
1Hz step
50, 100, 200, 400Hz 'hot'
push buttons

Frequency Stability

±0.1%

Output Wave Form

Sinusoidal

Total Harmonic Distortion

Less than 5% at full load

Line/Load Regulation

Maximum ± 5% of Vout max
from no load to full load

Load Crest Factor

Maximum 3.0 at 90% load

Output Ripple/Noise

High frequency ripple is less
than 500mVrms (20 MHz BW)

Output Overload Protection

Current limiting with short circuit
protection.
Thermal shutdown with automatic
recovery in case of insufficient
airflow
Hiccup at 4.8Arms

Output Overvoltage Protection

280Vac by internal supply voltage
limiting

Efficiency

Typically 80% at full load

Operating Temperature Range

0°C to +50°C for full specification
without derating.

Temperature Drift (for output voltage level)

0.05% per °C over operating
temperature range

Cooling

Built-in fan

Environmental Protection

Basic ruggedizing
Full ruggedizing and conformal
coating as option

Humidity

5 - 95% non-condensing

MTBF

Min. 120,000 hours at 45°C
Demonstrated MTBF is
significantly higher
Fan excluded

Indicators

Digital meters for output voltage
and frequency

Control Input

Switch ON/OFF

Alarm Output

None

Dimensions (W x H x D)

185 x 141 x 356 mm
7.3" x 5.54" x 14" enclosed case

Weight

4.kg (9 lb)

Connections

Input: IEC inlet connector
Output: banana sockets on front-
panel

RoHS Compliance

Fully compliant

Warranty

Two years subject to application
within good engineering practice

Enhancements to these general specifications can be accommodated upon request. Specifications are subject to change

Designer and manufacturer of quality ac-dc power supplies and battery chargers, converters, inverters, dc-output UPS systems, complete rack mount systems and DC-input fluorescent lamp inverters since 1982. Custom or standard. Absopulse is a BABT-proved Facility.



ABSOPULSE ELECTRONICS LTD

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