

## 500VA Variable AC Power Source with Sine Wave Output 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
- Full electronic protection
- Field-proven design topology

This variable AC power source has an adjustable output of 0...264Vrms range, maximum current 4Arms and maximum power of 500VA. The unit uses PWM technology to generate 500VA sine wave output with a total harmonic distortion of less than 5%. The input is power factor corrected. The output frequency is adjustable from 40 to 440Hz. It is suitable for a diverse range of industrial, engineering and academic or laboratory applications. The VFC 500 Series AC power source can be used as a compact AC-AC frequency converter. The unit is fan cooled. 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. Customized versions of this design are available.

### SPECIFICATIONS

#### Input Voltage

Universal 95-264Vac  
47 - 410Hz  
Input current 6.6Arms max.  
Power Factor is better than 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 EN60950-1

#### EMI

EN 55032 Class A with margins

#### Output Voltage

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

#### Output frequency

40 ...440Hz in one band with 1Hz step  
Preselect buttons for 50, 100, 200, 400Hz

#### Frequency Stability

±0.1%

#### Output Wave Form

Sinusoidal

#### Total Harmonic Distortion

Less than 5% at full load

#### Line/Load Regulation

±5% of V-out max from no load to full load

#### Load Crest Factor

2.5 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 cooling

#### 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

Ruggedizing  
Conformal coating

#### Humidity

5 - 95% non-condensing

#### MTBF

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

#### Indicators

Digital display for output voltage and frequency

#### Control Input

ON/OFF switch  
Frequency Up/down buttons  
Frequency Pre Select buttons  
Voltage Up/down buttons

#### 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

Compliant

#### Warranty

Two years subject to application within good engineering practice

ABSOPULSE power supplies are designed and built to customer requirements. The specifications on this data sheet are generic guidelines only and are subject to change.

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



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