

1000VA Sine Wave Output Variable AC Power Source

Rugged, Industrial Quality VFC 1K Series

- Variable output voltage and frequency
- Electronic power factor correction (PFC)
- Sinusoidal output voltage
- Digital meters for output voltage and frequency
- Isolated, floating output
- 1000VA output power
- Full electronic protection
- Field-proven design topology



This variable AC power source has an adjustable output of 0 ... 132Vrms (maximum current 8Arms), and 0 ... 264Vrms (maximum current 4Arms). The unit uses PWM technology to generate a 1000VA sine-wave output with a total harmonic distortion less than 5% at full load. 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. It can also be used as an 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 12A rms max.
Power Factor is better than 0.97 at full load for the entire input range.
Meets EN61000-3-2 and EN61000-3-12

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...132Vrms range;
max current 8Arms
0...264Vrms range;
max current 4Arms

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

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 cooling

Output Overvoltage Protection

140Vac in low range and
280Vac in high range 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 fans drawing air into the unit

Environmental Protection

Ruggedizing
Conformal coating

Humidity

5 - 95% non-condensing

MTBF

Min. 95,000 hours at 45°C
Demonstrated MTBF is significantly higher. Fans excluded

Indicators

Digital meters for output voltage and frequency

Control Input

Switch ON/OFF
Frequency Up/down buttons
Frequency Pre Select buttons
Voltage Up/down buttons
Remote shutdown as option

Alarm Output

None

Dimensions

3U x 19" x 18" enclosed case

Weight

Approx. 11 kg (24 lb)

Connections

Input: terminal block
Output: binding posts on front panel
AC receptacle on rear panel optional

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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