

## 2000VA Sine Wave Output Variable AC Power Source Rugged, Industrial Quality VFC 2K Series



- Variable output voltage and frequency
- Electronic power factor correction (PFC)
- Sinusoidal output voltage
- Digital meters for output voltage and frequency
- Isolated, floating output
- 2000VA output power
- Full electronic protection
- Field-proven design topology

The VFC 2K Series is a variable AC power source with an adjustable output of 0 ... 132Vrms (maximum current 15Arms) and 0...264Vrms (maximum current 7.5Arms). The unit uses PWM technology to generate a 2000VA sine-wave output with a total harmonic distortion less than 5% at full load. The input is power factor corrected.

The VFC 2K Series AC power source 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 and features full electronic protection, high efficiency and low output noise. The use of components with established reliability results in a high demonstrated MTBF. The VFC 2K is manufactured at our plant under strict quality control. Customized versions are also available.

### SPECIFICATIONS

#### Input Voltage

Universal 95 ... 264Vac  
47 - 410Hz  
Input current 26A 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...132Vrms range;  
max current 15Arms  
0...264Vrms range;  
max current 7.5Arms

#### 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 cooling  
Hiccup at approx. 120% of output max. current

#### 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

Basic ruggedizing  
Full ruggedizing and conformal coating as option

#### 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  
Remote shutdown as option

#### Alarm Output

None

#### Dimensions

3U x 19" x 18" enclosed case  
Black

#### Weight

14 kg (31 lb)

#### Connections

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

#### 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.*



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