

2000VA Rugged, Encapsulated, Sine Wave Frequency Converter FC 2KP-EW/A Series



- Field-proven, rugged design
- Sinusoidal output voltage
- Able to handle generator voltage
- Fully encapsulated internal modules
- Low profile, compact size
- Full electronic protection

This rugged, modular AC-AC frequency converter system was designed to generate a clean sine wave output from “dirty” generator voltage under harsh field conditions. It uses field proven, microprocessor controlled high frequency PWM technology which has a track record in numerous applications. The AC-DC input stage boosts the input voltage to a higher DC voltage, which feeds the DC-AC inverter. The internal power modules are entirely potted with a thermally conductive MIL-grade silicon rubber compound for immunity to high levels of shock, vibration and humidity, ensuring reliable operation. Cooling is via baseplate to a cold plate surface. The input and output are filtered for low noise. The high frequency conversion enables compact construction, and high efficiency. Full electronic protection and the use of components with established reliability result in high MTBF. The system is manufactured at our plant under strict quality control. Customized versions are also available.

SPECIFICATIONS

<p>Input Voltage 230Vac nominal from diesel generator 180-270Vac operating range 35-70Hz Input current: 20Arms max. Consult factory for other input voltages and ranges</p>	<p>Output Voltage 120Vac/16Arms continuous at 60Hz or 230Vac/8Arms continuous at 50Hz Neutral is internally connected to the chassis Consult factory for other outputs</p>	<p>Output Overvoltage Protection 140Vac (for 115Vac output) by internal supply voltage limiting</p>	<p>Indicators None</p>
<p>Input Protection Inrush current limiting Varistors Internal safety fuse Lower voltage than the specified minimum input will not damage the unit</p>	<p>Output Wave Form Sinusoidal</p>	<p>Efficiency Typically 80% at full load Dependent on input/output combination</p>	<p>Control Input None</p>
<p>Isolation 2250Vdc input to chassis/output Output neutral is connected to the chassis internally</p>	<p>Total Harmonic Distortion Less than 5% at full load</p>	<p>Operating Temperature Range 0°C to +50°C for full specification without de-rating Extended temperature ranges available</p>	<p>Alarm Output Not installed Available on request</p>
<p>Standards Designed to meet C22.2 No. 107.1 - 01, UL 458 and EN60950-1</p>	<p>Line/Load Regulation Maximum $\pm 6\%$ from no load to full load.</p>	<p>Temperature Drift 0.05% per °C, over the operating temperature range</p>	<p>Package/Dimensions (W x H x L) F31 (for AC-DC sub system) and F21 (for DC-AC inverter sub system) enclosures, requiring an installation area of: 508 x 69 x 914 mm Chassis mount</p>
<p>EMI EN 55022 Class A with margins</p>	<p>Load Crest Factor Maximum 2.5 at 70% load</p>	<p>Cooling Conduction cooling, unit must be mounted on heat-sinking surface</p>	<p>Weight Approx. 20kg (44 lb.)</p>
	<p>Output Noise High frequency ripple is less than 500mVrms (20MHz BW)</p>	<p>Environmental Protection Internal modules are fully encapsulated</p>	<p>Connections Input: Threaded studs Output: Threaded studs Interconnection: Threaded studs</p>
	<p>Output Overload Protection Current limiting with short circuit protection At approximately 2400VA, unit enters cycling (hiccup) mode. Thermal shutdown with automatic recovery in case of insufficient cooling</p>	<p>Shock/Vibration IEC 61373 Cat 1 A&B</p>	<p>RoHS Compliance According to requirements</p>
		<p>Humidity 5 - 95% non-condensing</p>	<p>Warranty Two years subject to application within good engineering practice</p>
		<p>MTBF Min. 95,000 hours at 45°C Demonstrated MTBF is significantly higher</p>	

Please note that ABSOPULSE power supplies are designed and built to customer specifications. The specifications on this data sheet are generic and will vary depending on input/output configuration and other customer requirements. Generic 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



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