

AC/AC Frequency Converter

230Vac to 115Vac 400Hz

500VA



KCFp500

Description:

The KCFp500 range of converters is designed to provide AC-AC frequency conversion, in particular to specific frequencies such as 400 Hz, commonly used in aerospace, military and onboard applications. They use high-frequency, microprocessor-controlled PWM (pulse-width modulation) technology to generate a perfectly sinusoidal and stable output voltage, even with load variations.

Thanks to this high-frequency conversion, these converters feature a compact design, a small footprint and a low weight (approximately 3 kg), while delivering high energy efficiency. This makes them an ideal solution for environments where power, portability and reliability are essential.

The KCFp500 model includes advanced electronic protections (against overloads, short circuits, overtemperature, etc.), enhancing operating safety. Active cooling, provided by side-mounted fans, ensures optimal operation.

Finally, the use of high-quality, highly reliable components achieves a high MTBF (Mean Time Between Failures), meeting the requirements of critical applications, particularly in 400 Hz power systems.

Features:

- Sinusoidal output voltage
- Rugged, field-proven design
- Cooling by internal fans
- Filtered input and output
- Full electronic protection
- Compact format
- 500 VA output power

Applications:

- Aerospace
- Industrial controls
- Rail / Transportation
- Military applications
- Marine
- Steel mills
- Utilities and substations
- Base station power supply
- Manufacturing site

Operating principle:



3D file .step

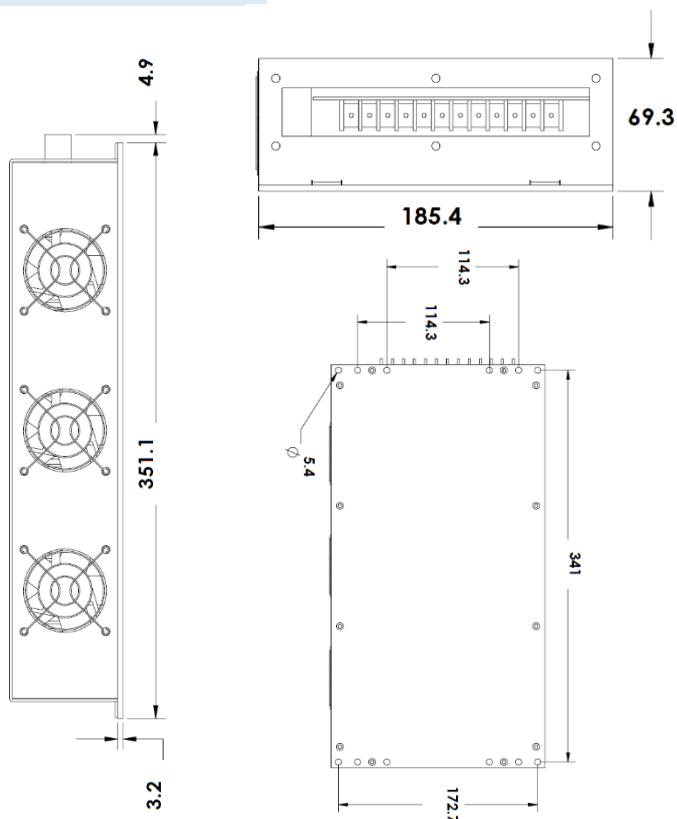


Technical Specifications:

Input voltage	230Vac nominal, 47 to 63 Hz 190 to 264Vac
Internal protection	Internal safety fuse Inrush current limiting Varistor
Isolation	2250 VDC Input to ground 3000 VDC Input to output 1000 VDC Output to chassis
Standards	EN62368-1 EMC EN 55032 Class A IEC 61373 Cat 1 A&B
Output voltage	115 Vac / 4.3Arms continuous 400 Hz Sinusoidal waveform
Total harmonic distortion	Less than 5 % at full load
Load regulation	±5% max
Load crest factor	2 at 90 % load
Cooling	3 fans
MTBF	110 000 hours @ 45°C

Output overload protection	Current limiting with short-circuit protection. Thermal shutdown with automatic recovery in case of insufficient cooling
Temperature drift	0.05 % per °C over the operating temperature range
Output noise	High-frequency ripple is less than 500 mVrms (20 MHz bandwidth)
Efficiency	Min 80% at full load
Connections	12-pole screw terminal block
Operating temperature	Min: 0°C Max: 50°C to guarantee rated power
Weight	2.9 kg
Dimensions	Width: 185.4mm Height: 69.3mm Length: 358mm
Warranty	2 years under normal operating conditions

Outline



Wiring

Input		Not used								Output		
~L1	~L2	Not used								Earth	Neutral	Line
1	2	3	4	5	6	7	8	9	10	11	12	

