

# FC1K SERIES

AC / AC Frequency Converter: 1000 VA



## General Specifications

<b>Input Voltage</b>	115 or 230Vac, +/-15% 47 ... 410Hz are standard. Factory set for required input voltage. • 95 – 264Vac universal input option
<b>Input Protection</b>	Inrush current limiting Internal safety fuse
<b>Isolation</b>	2250Vdc input to chassis/output Output neutral is connected to the chassis internally. Floating output as option
<b>EMI</b>	EN55011 Class A conducted
<b>Immunity</b>	EN 61000-4
<b>Output Waveform</b>	Sinusoidal
<b>Output Voltage</b>	115Vac @ 60Hz or 400Hz/8.7A rms continuous; or 230Vac @ 50Hz/4.35A rms continuous Output neutral is connected to the chassis internally. Isolated floating output optional.
<b>Harmonic Distortion</b>	Less than 5% at 100% load.
<b>Load Crest Factor</b>	Maximum 2.5% at 90% load
<b>Output Power</b>	1000VA
<b>Regulation</b>	Line / Load: ±6% from 10% to 100% load step.
<b>Output Noise</b>	High Frequency ripple is better than 500mVrms ( 20MHz BW )
<b>Protection</b>	Current limiting with short circuit protection Self re-setting thermostat for thermal protection
<b>Output Over Voltage Protection</b>	Output voltage is limited by internal supply voltage
<b>Efficiency</b>	Typically 78%
<b>Operating Temp</b>	0°C to +50°C at rated load. Other options on request
<b>Cooling</b>	On Board Fans
<b>Shock &amp; Vibration</b>	Basic ruggedizing
<b>Humidity</b>	5-95% non-condensing
<b>MTBF</b>	>95,000 hrs at 45°C
<b>Connector</b>	Input: compression type terminal block Output: standard AC receptacle Option: compression type terminal block
<b>Dimensions</b>	3U3 case: 187 x 132 x 407mm 19in Rack mount option
<b>Weight</b>	6kg

## Features

- 115 or 230VAC output option
- 1000VA output power
- Frequency options 50Hz / 60Hz / 400Hz
- Sinusoidal output waveform
- Filtered input
- Rugged design for harsh environments
- Full electronic protection

## Description

The **FC1K** AC/AC frequency converter system uses field proven microprocessor controlled high frequency PWM technology to generate the required output power with pure sine wave output voltage.

It is a mature design with a track record in numerous applications. The frequency converter is built with internal power modules.

The AC/DC input stage boosts the input voltage to a higher DC voltage, which feeds the DC/AC inverter to generate the required AC output. A built-in fan provides sufficient airflow for operation without de-rating to the specified temperature.

The high frequency conversion enables a compact construction, low weight and high efficiency.

The unit has full electronic protection. The input and output are filtered for low noise. The use of components with established reliability results in high MTBF.

## Options ( may not be available on all combinations )

<b>Alarms</b>	Output Fail Alarm: voltage free relay contacts
<b>Remote Inhibit</b>	Remote ON / OFF
<b>Ruggedized</b>	Conformal coating and Ruggedization for use in harsh environments.
<b>Slow Start</b>	Slow start up option for powering fans
<b>Connector</b>	A variety of terminals / connectors available to suit special customer requirements

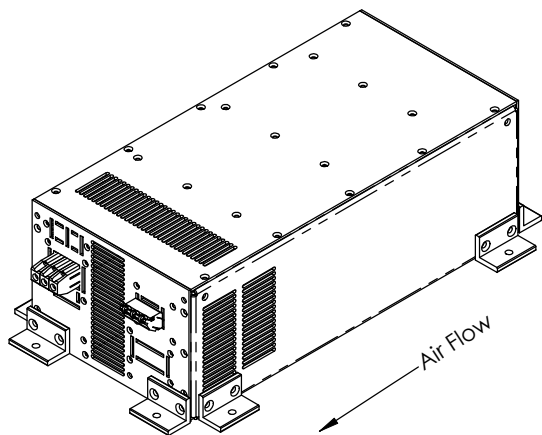
### Model No Example:

**FC500-EA** = ( 230V 50Hz / 115V / 60Hz )

FC	Power	Input AC	Output AC	Factory Allocated
FC	1K	A = 115V 60Hz	A = 115V 60Hz	
		E = 230V 50Hz	E = 230V 50Hz	
		M = 115V 400Hz	M = 115V 400Hz	

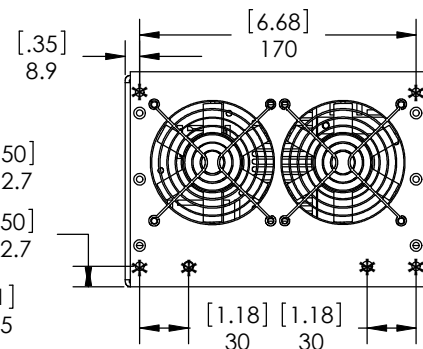
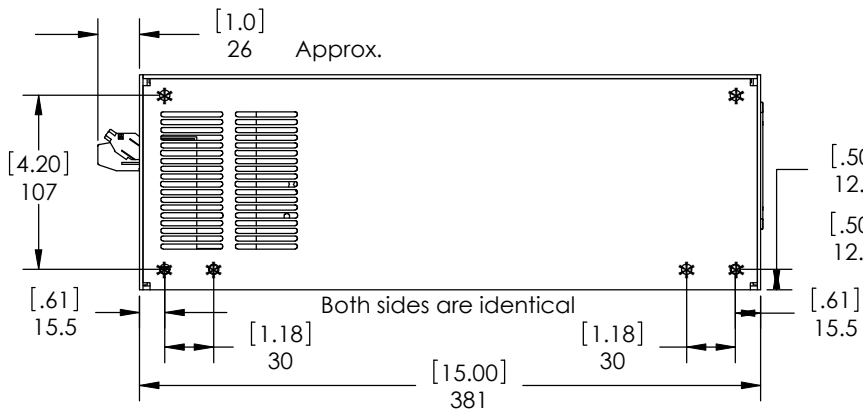
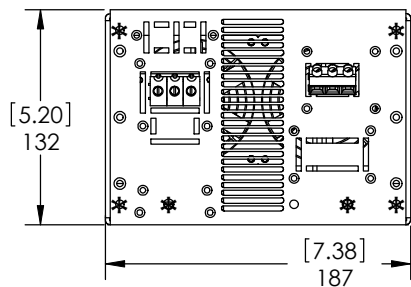
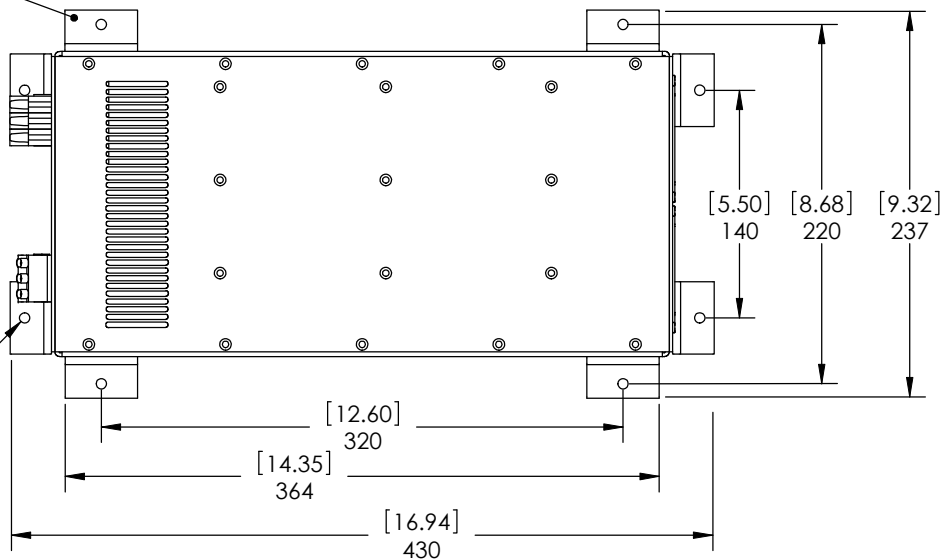
1. Standard input / Output combinations are illustrated.
2. Non standard combinations are available on request
3. Final Part no will be allocated at time of order to reflect customer specifications and options.

Mounting brackets can be installed along short or long sides - 4 mounting brackets with fasteners are provided with the unit



Input / Output termination may vary, it depends on application

[.25]  
Ø6.4 typ.



\* M5 Threaded inserts for mounting brackets or for other mounting options  
Maximum screw penetration is 10mm from outside surface of chassis

DIMENSIONS ARE IN MILLIMETERS  
[INCHES] TOLERANCES ON  
DECIMALS: XXX ± 0.2mm  
XX ± 0.3mm  
ANGLES: ± 2°  
FRACTIONS: ± 0.4mm  
UNLESS OTHERWISE STATED



Title:	OUTLINE DRAWING
Model No:	3U3 Package

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