FC1K5 SERIES

AC / AC Frequency Converter: 1500 VA

HELIOS POWER SOLUTIONS
www.heliosps.com.au

3U3:
3U (5.2") x7.4"x 16"
chassis-mount only

3U7:
3U (5.2") x 19"x 16" rack-mount or chassis mount.

Features

- 115 or 230VAC output option
- 1500VA output power
- Frequency options 50Hz / 60Hz / 400Hz
- Sinusoidal output waveform
- Filtered input
- Rugged design for harsh environments
- Full electronic protection

General Specifications

Input Voltage	115 or 230Vac, +/-15% 47 … 410Hz are standard. Factory set for required input voltage. • 95 – 264Vac universal input option
Input Protection	Inrush current limiting Internal safety fuse
Isolation	2250Vdc input to chassis/output Output neutral is connected to the chassis internally. Floating output as option
EMI	EN55011 Class A conducted
Immunity	EN 61000-4
Output Waveform	Sinusoidal
Output Voltage	115Vac @ 60Hz or 400Hz/13A rms continuous; or 230Vac @ 50Hz/6.6A rms continuous Output neutral is connected to the chassis internally. Isolated floating output optional.
Harmonic Distortion	Less than 5% at 100% load.
Load Crest Factor	Maximum 2.5% at 90% load
Output Power	1500VA
Regulation	Line / Load: ±6% from 10% to 100% load step.
Output Noise	High Frequency ripple is better than 500mVrms (20MHz BW)
Protection	Current limiting with short circuit protection Self re-setting thermostat for thermal protection
Output Over Voltage Protection	Output voltage is limited by internal supply voltage
Efficiency	Typically 78%
Operating Temp	0ºC to +50ºC at rated load. Other options on request
Cooling	On Board Fans
Shock & Vibration	Basic ruggedizing
Humidity	5-95% non-condensing
MTBF	>95,000 hrs at 45ºC
Connector	Input: Terminal-block or threaded studs Outputs: Standard AC receptacle, IEC receptacle or terminal block
Dimensions	Package size varies from 3U x 7.4" x 16" to a 3U x 19" x 16" modular configuration, depending on the input/output combination required. Chassis-mount and 19" rack-mount versions.
Weight	6-8kg

Description

The **FC1K5** 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)

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

Model No Example:
FC1K5-EA = (230V 50Hz / 115V / 60Hz)

FC	Power	Input AC	Output AC	Factory Allocated
FC	1K5	**A** = 115V 60Hz **E** = 230V 50Hz **M** = 115V 400Hz	**A** = 115V 60Hz **E** = 230V 50Hz **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.

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