

**Model: FCA500-115/400-115/60**

**Summary description: Frequency Converter with Sinewave Output  
115Vac/400Hz to 115Vac/60Hz**



**Product description:**

This rugged AC/AC frequency converter 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 AC/DC input stage converts the input voltage to a DC voltage, which feeds the DC/AC inverter to generate the required AC output. The use of 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. Cooling is via base plate to a heat sinking surface and by natural convection. The use of components with established reliability results in high MTBF. The unit is manufactured at our plant under strict quality control.

**Special Features:** 400Hz input, conformal coating, terminal block cover

**SPECIFICATIONS**

**Input Voltage**

115Vac nominal, 400Hz  
95-132Vac operating range  
Input current: 9.5Arms max

**Input Protection**

Internal safety fuse  
Inrush current limiting  
Varistor  
Lower voltage than specified  
minimum input will not damage unit

**Isolation**

2250Vdc input to ground  
2250Vdc input to output  
2250Vdc output to chassis

**Standards**

Designed to meet EN60950-1 and related standards

**EMI**

EN 55022 Class A as a minimum

**Output Voltage**

115Vac/4.3Arms  
60Hz continuous  
Output is floating

**Output Wave Form**

Sinusoidal

**Total Harmonic Distortion**

Less than 5% at full load

**Line/Load Regulation**

± 5% from no load to full load

**Load Crest Factor**

Maximum 3.0 at 90% load

**Output Noise**

High frequency ripple is less than 500mVrms (20MHz BW)

**Output Overload Protection**

Current limiting with short circuit protection. At approximately 600VA unit enter cycling (hiccup) mode. Thermal shutdown with automatic recovery in case of insufficient cooling

**Output Overvoltage Protection**

140Vac by internal supply voltage limiting

**Efficiency**

Min 80% at full load

**Operating Temperature Range**

0°C to +50°C

**Temperature Drift**

0.05% per °C over operating temperature range

**Cooling**

Conduction/convection

**Environmental Protection**

Basic ruggedizing  
Conformal coating

**Shock/Vibration**

IEC 61373 Cat 1 A&B

**Humidity**

5 - 95% non-condensing

**MTBF**

110,000 hours @ 45°C

**Indicators**

LED not installed

**Control Input**

None

**Alarm Output**

None

**Package / Dimensions (WxHxL)**

FX: 152 x 67 x 357mm  
(6" x 2.6" x 14")  
Mounting holes are clear

**Weight**

2kg (4.4 lb)

**Connections**

12-pole barrier-type terminal block, 3/8" spacing. Snap-on cover included.

**RoHS Compliance**

Fully compliant

**Warranty**

Twelve months subject to application within good engineering practice

**Terminal Block Pin-out**

115VAC OUTPUT							115VAC INPUT				
L1	L2	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED	NOT USED	GND	N	PH	
1	2	3	4	5	6	7	8	9	10	11	12



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