

# Source Control Document.

**Model: FC 100-UA-F2T-T2233**

**COSD: XXXX**

**Summary description 100VA Industrial Quality Sinewave Frequency Converter  
Universal AC to 120Vac/60Hz**

**Customer Name: Onrion/NJ**

**Customer Part Number: Same as above**



## Product description:

This rugged industrial quality AC/AC frequency converter uses field proven, microprocessor controlled high frequency PWM technology to generate the required output power with pure sign wave output voltage. It is a mature design with 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 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 baseplate to a heatsinking 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:** conformal coating

## SPECIFICATIONS

### Input Voltage

Universal 95...264Vac operating range  
47...63Hz  
Input current: 1.9Arms max at 95Vac

### Input Protection

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

### Isolation

2250Vdc input to chassis  
3000Vdc input to output  
1500Vdc output to chassis  
Floating output

### Standards

Designed to meet  
C22.2 No.107.1 -01  
UL 458 and EN60950-1

### EMI

EN 55022 Class A with margins

### Output Voltage

120Vac/0.83Arms, 60Hz  
100VA continuous  
Output is floating, either terminal  
can be grounded

### Output Wave Form

Sinusoidal

### Total Harmonic Distortion

Less than 5% at full load

### Line/Load Regulation

± 3% from no load to full load

### Load Crest Factor

2 at 90% load

### Output Noise

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

### Output Overload Protection

Current limiting with short circuit  
protection

### Output Overvoltage Protection

140Vac by internal supply voltage  
limiting

### Efficiency

80% at full load

### Operating Temperature Range

0°C to +50°C

### Temperature Drift

0.05% per °C over operating  
temperature range

### Cooling

Conduction via base plate and  
additional air convection to the  
installation surface

### Environmental Protection

Basic ruggedizing  
Conformal coating

### Shock/Vibration

IEC 61373 Cat 1 A&B

### Humidity

5 - 95% non-condensing

### MTBF

120,000 hours @ 45°C

### Indicators

Green OUTPUT ON LED visible through  
the cooling slots

### Control Input

None

### Alarm Output

Not installed

### Package / Dimensions (WxHxL)

F2: 114 x 58 x 256mm  
(4.5" x 2.3" x 10.1")  
Mounting holes are clear

### Weight

1.2 kg (2.6 lb)

### Connections

9-pole barrier-type terminal block,  
3/8" spacing

### RoHS Compliance


Not required but accepted

### Warranty

Two years subject to application  
within good engineering practice

### Terminal Block Pin-out

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

Originated by NH	Date May 17, 2018
Updated by	Drawing No./ Rev. SCD T2233-2A
Approved by	

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