# RUGGED
# GALAXY™ SERIES
## SOLID-STATE FREQUENCY CONVERTERS
### SINGLE PHASE OUTPUT
### 120 VA - 7.5+ KVA




## APPLICATIONS

Utilizing field proven technology, this family of rugged solid-state sinewave frequency converters is suitable for harsh environments and can be customized for unique applications including:

- Shelters
- Tactical Systems
- Shipboard Power
- MIL-STD-810
- MIL-S-901
- HMMWVs
- Mobile Systems
- Ground support
- MIL-STD-461
- MIL-STD-167


**NOVA ELECTRIC**
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A Leader in Frequency Converter Technology since 1966 - 500VA to 500+KVA

MADE IN USA

# RUGGED SINGLE-PHASE SINEWAVE FREQUENCY CONVERTER

CAN MEET MIL-STD-810, MIL-STD-1399, MIL-S-901, MIL-STD-704, & MIL-STD-461 OPTIONALLY

## APPLICATIONS

The rugged Galaxy Series Frequency Converter is designed to provide years of reliable service in harsh shock, vibration, humidity, and EMI environments. Military applications include HMMVW, UAV, Shipboard, Submarine, Shelter, Mobile Power Units, and Aircraft.

## OPTIONS

- Ruggedization against shock, vibration and humidity to MIL-STD-810
- MS Connector or outlets
- Chassis Slides (rack mount models only)
- Frequency Meters
- Elapsed Time Meter
- Custom NEMA Wall-Mount or Floor-Mount Enclosure
- Output Circuit Breaker
- Rail Frequency Hz - 83, 91.66, 100, 200, or 250 Hz.

## SPECIFICATIONS

### ELECTRICAL

AC Input: Most standard 1Ø or 3Ø (specify)
AC Output: Most standard 1Ø or 3Ø (specify)
Frequency: 50, 60, or 400Hz (specify)
Voltage Regulation: ± 1.5% NL to FL
Frequency Regulation: ± 0.5% NL to FL
Harmonic Distortion: 3% Typical, 5% Max
Power Factor: 0.7 lead to 0.7 lag
Efficiency at full load: 85-95% (depending on model)
Overload: 120% typical

### PROTECTIVE FEATURES

Current Limit, Short Circuit Protection, Thermal Protection, and Semi-Conductor Protection

### ENVIRONMENTAL

Operating Temp.: -20° to +50°C
Storage Temp. Range: -40° to +71°C
Humidity: to 95% non-condensing
Elevation: 10,000 ft. typical
Shock: 20g/11mS
Audible Noise: 65 dBA at 5 ft. typical
Cooling: Forced Air by internal DC brushless fan
Vibration: Normal shipping and handling
EMI: Designed to meet FCC Part 15, Class A. Designed to meet MIL-STD-461 with optional additional filtering.

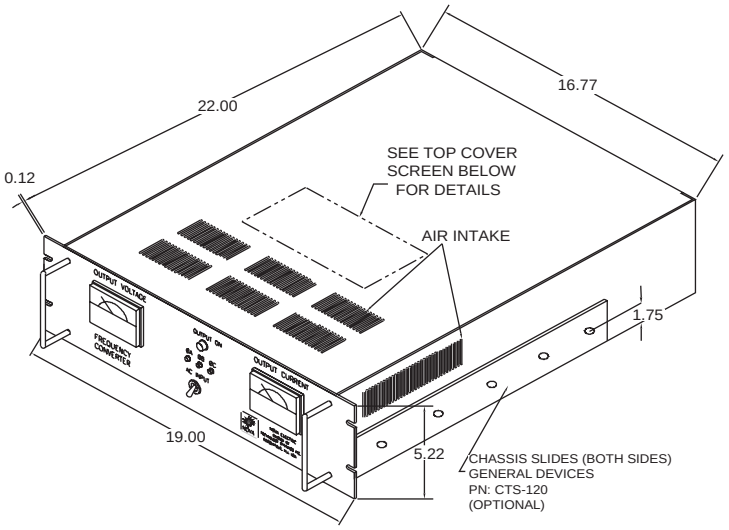
### HIGH-RELIABILITY

MTBF: 30,000 Hours per MIL-HDBK-217
MTBR: Less than 30 minutes

## MODEL SELECTION

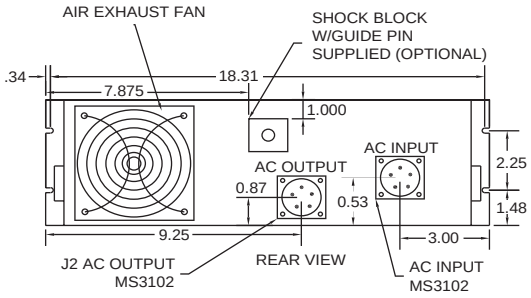
| Partial Model Number | KVA | Output Voltage | Output Frequency Hz | Weight (Lbs.) | Inch Dimensions (H x W x D) |
|---|---|---|---|---|---|
| FC1250U<br>FC1260U<br>FC12400U | 0.125 | 220<br>120<br>115 | 50<br>60<br>400 | 30<br>30<br>30 | 5.25” x 9.0” x 11.0” |
| FC2550U<br>FC2560U<br>FC25400U | 0.25 | 220<br>120<br>115 | 50<br>60<br>400 | 65<br>65<br>60 | 6.75” x 14.25” x 14.25” |
| GSFC5050<br>GSFC5060<br>GSFC50400 | 0.5 | 220<br>120<br>115 | 50<br>60<br>400 | 95<br>105<br>90 | 5.25” x 19.0” x 22.0” |
| GSFC1K50<br>GSFC1K60<br>GSFC1K400 | 1 | 220<br>120<br>115 | 50<br>60<br>400 | 100<br>110<br>95 | 5.25” x 19.0” x 22.0” |
| GSFC1.5K50<br>GSFC1.5K60<br>GSFC1.5K400 | 1.5 | 220<br>120<br>115 | 50<br>60<br>400 | 120<br>115<br>110 | 5.25” x 19.0” x 22.0” |
| GSFC2K50<br>GSFC2K60<br>GSFC2K400 | 2 | 220<br>120<br>115 | 50<br>60<br>400 | 125<br>120<br>115 | 5.25” x 19.0” x 22.0” |

| Partial Model Number | KVA | Output Voltage | Output Frequency Hz | Weight (Lbs.) | Inch Dimensions (H x W x D) |
|---|---|---|---|---|---|
| GSFC3K50<br>GSFC3K60 | 3 | 220<br>120 | 50<br>60 | 185<br>180 | 8.75” x 19.0” x 23.25” |
| GSFC3K400 | 3 | 115 | 400 | 170 | 5.25” x 19.0” x 22.25” |
| GSFC4K50<br>GSFC4K60<br>GSFC4K400 | 4 | 220<br>120<br>115 | 50<br>60<br>400 | 205<br>195<br>185 | 8.75” x 19.0” x 23.25” |
| GSFC5K50<br>GSFC5K60<br>GSFC5K400 | 5 | 220<br>120<br>115 | 50<br>60<br>400 | 210<br>200<br>190 | 8.75” x 19.0” x 23.25” |
| GSFC7.5K50<br>GSFC7.5K60<br>GSFC7.5K400 | 7.5 | 220<br>120<br>115 | 50<br>60<br>400 | 445<br>425<br>400 | 30.0” x 36” x 17” |




## TYPICAL GSFC 1-2 KVA CHASSIS

NOTES:
1. ALL DIMENSIONS ARE IN INCHES.
2. EXTERIOR ANSI# 61 GRAY SEMI-GLOSS.
3. HANDLES PROJECT 1.50 INCHES FROM PANEL SURFACE.





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