



NOVA ELECTRIC



POPULAR OPTIONS

- Ruggedization Against Shock, Vibration, And Humidity
- MS Connector Mates
- Multiple Output Outlets
- Chassis Slide Guides
- 3Ø Power Input
- 400 Hz Input And / Or Output
- CAD Free Connectors
- Non-PVC Wiring
- High IP Protection Including Louvers On All Intake And Exhaust, As Well As Fully Gasketed Breakers, Switches, And Indicators.
- Input Volt and Amp Meter Set *(Available On Select Models)*
- Elapsed Time Meter *(Available On Select Models)*
- Rugged Transit Cases and Custom Enclosures
- Power Distribution Units (PDUs)
- Environmental Stress Screening Services

CONTACT

100 School Street,
Bergenfield, NJ 07621 USA

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Galaxy Series 500 W – 6 KW Rack Mount Transformer Isolated Solid-State Frequency Converters



GENERAL OVERVIEW

Nova frequency converters are high-reliability power sources specifically designed for demanding applications in high shock, vibration, humidity, and EMI environments. They can be built to meet MIL-STD-810, MIL-S-901, MIL-STD-1472, MIL-STD-461, and other standards optionally. Transformer-isolated topology makes these Converters suitable for very high inrush loads, such as motors and compressors. They are suitable for severe environment and high reliability applications such as:

- Military Applications: HMMWV, UAV, Shipboard, Submarine, Aircraft and Mobile Power Units, Shelters
- Aircraft Power
- Communications Systems
- Cellular Sites
- European Power / Export Testing
- Power Conditioning & Frequency Stabilization
- U.S. Power Abroad
- Railroad Signaling Power – 25, 91.66, 100, 200, and 250 Hz. Available

The Leader In Rugged Power Conversion Technology Since 1966

Rev C-March-20-2021



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SPECIFICATIONS

Electrical

POWER RATINGS	120 VA – 7.5+ KVA
INPUT VOLTAGE	Most standard AC Voltages Including 115, 120, 200, 208, 220, 240, 277, 380, 480, 120/208, 220/380, and 277/480 (Available in Single and Three-Phase Configurations)
OUTPUT VOLTAGE	Most Standard AC Voltages Including 115, 120, 200, 208, 220, 240, 277, 380, and 480
FREQUENCY	50 Hz, 60 Hz, or 400 Hz ($\pm 0.5\%$)
FREQUENCY REGULATION	$\pm 0.5\%$ NL to FL (Crystal Available)
FREQUENCY TRANSIENTS	None
VOLTAGE REGULATION	$\pm 1.5\%$ N.L. to F.L.
EFFICIENCY	Approximately 85-95% (Depending on Model)
TOTAL HARMONIC DISTORTION	3% Typical, 5% Max
OVERLOAD	120% Typical Power Factor: 0.7 Lead to 0.7 Lag
INPUT CIRCUIT PROTECTION	Circuit Breaker / Fuses, Transient Suppressors Output
CIRCUIT PROTECTION	Current Limit, Short Circuit Protection, Thermal Protection, and Semi-Conductor Protection
PHASE ROTATION	Any (Three-Phase Models)

Environmental

OPERATING TEMP.	-20°C to +50°C Standard -40°C to +71°C Optional (On Selected Models)
COOLING	Forced Air by Internal Fan
VIBRATION	Normal Shipping & Handling
SHOCK	20g, 11 mS Half Sinewave Designed to Meet MIL-STD-810 Optionally
ELEVATION	10,000 ft. Typical
HUMIDITY	To 95% RH Non-Condensing Designed to Meet MIL-STD-810. All Boards Conformal Coated with Acrylic MIL-I-46058 Type R.
AUDIBLE NOISE	65 dBA at 5 ft. Typical
EMI	Designed to Meet FCC Part 15, Class A. Designed to Meet MIL-STD-461 with Optional Additional Filtering
MTBF	30,000+ Hours Typical per MIL-HDBK-217
MTRR	Less than 30 Minutes

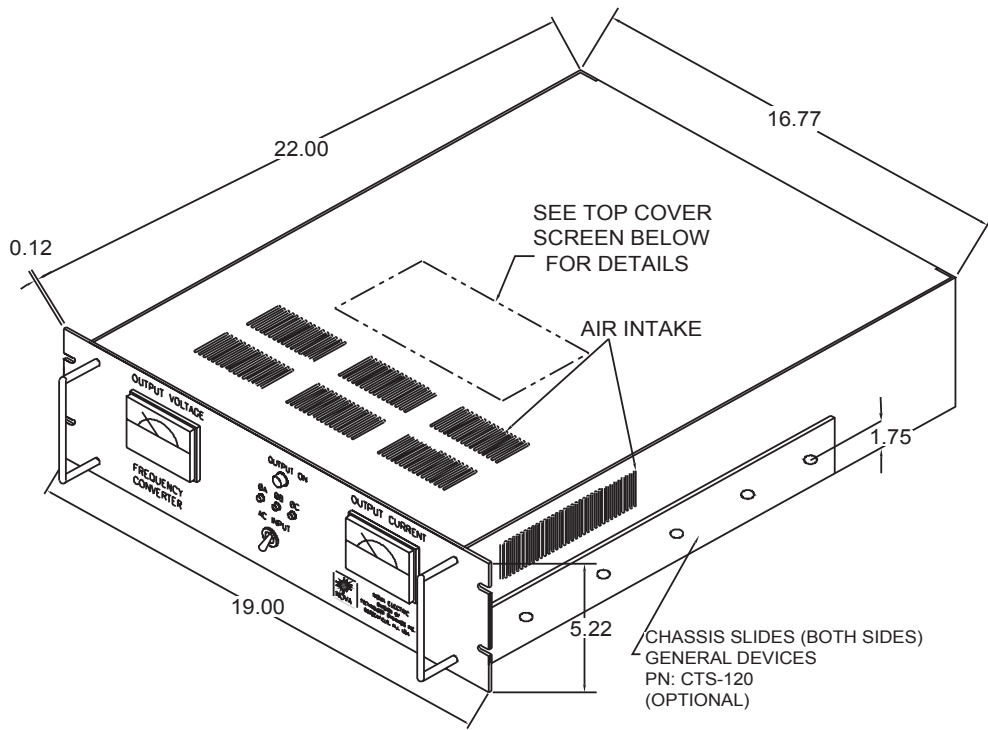
PARTIAL MODEL SELECTION

MODEL	KVA	OUTPUT VOLTAGE	OUTPUT FREQUENCY (Hz)	WEIGHT (LB)	SIZE (HxWxL)
GSFC5050	0.5	220	50	95	5.25" x 19" x 22"
GSFC5060	0.5	120	60	105	5.25" x 19" x 22"
GSFC50400	0.5	115	400	90	5.25" x 19" x 22"
GSFC1K50	1	220	50	100	5.25" x 19" x 22"
GSFC1K60	1	120	60	110	5.25" x 19" x 22"
GSFC1K400	1	115	400	95	5.25" x 19" x 22"
GSFC1.5K50	1.5	220	50	120	5.25" x 19" x 22"
GSFC1.5K60	1.5	120	60	115	5.25" x 19" x 22"
GSFC1.5K400	1.5	115	400	110	5.25" x 19" x 22"
GSFC2K50	2	220	50	125	5.25" x 19" x 22"
GSFC2K60	2	120	60	120	5.25" x 19" x 22"
GSFC2K400	2	115	400	115	5.25" x 19" x 22"
GSFC3K50	3	220	50	185	8.75" x 19" x 23.25"
GSFC3K60	3	120	60	180	8.75" x 19" x 23.25"
GSFC3K400	3	115	400	170	8.75" x 19" x 23.25"
GSFC4K50	4	220	50	205	8.75" x 19" x 23.25"
GSFC4K60	4	120	60	195	8.75" x 19" x 23.25"
GSFC4K400	4	115	400	185	8.75" x 19" x 23.25"
GSFC5K50	5	220	50	210	8.75" x 19" x 23.25"
GSFC5K60	5	120	60	190	8.75" x 19" x 23.25"
GSFC5K400	5	115	400	190	8.75" x 19" x 23.25"
GSFC6K50	6	220	50	220	8.75" x 19" x 23.25"
GSFC6K60	66	120	60	200	8.75" x 19" x 23.25"
GSFC6K400		115	400	200	8.75" x 19" x 23.25"

*Specifications subject to change without notice.

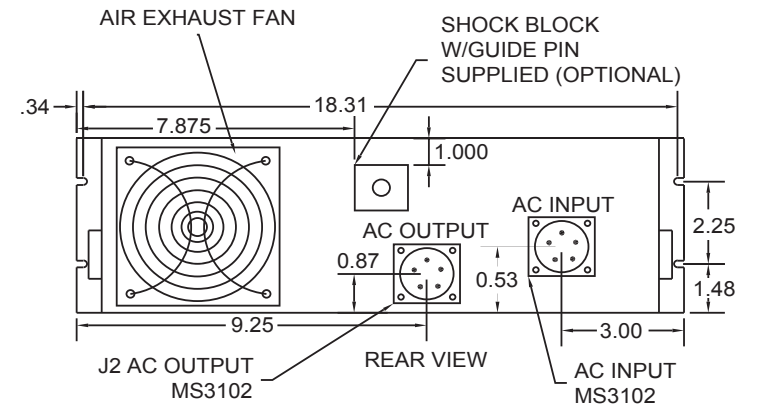
The Leader In Rugged Power Conversion Technology Since 1966

TYPICAL GSFC 1-2 KVA CHASSIS OUTLINE DRAWING

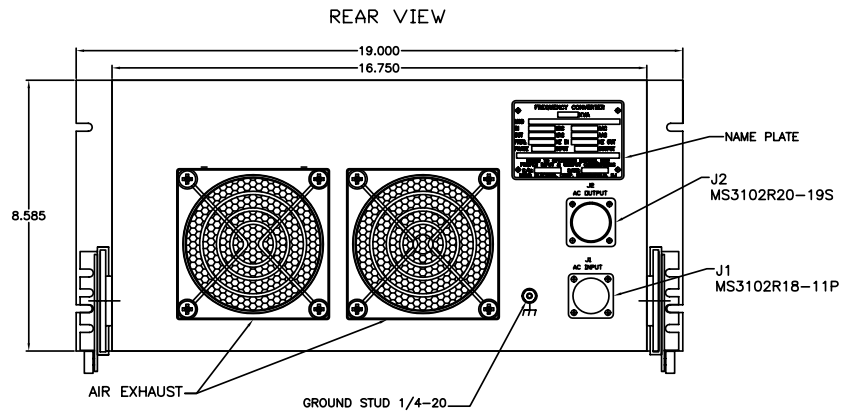
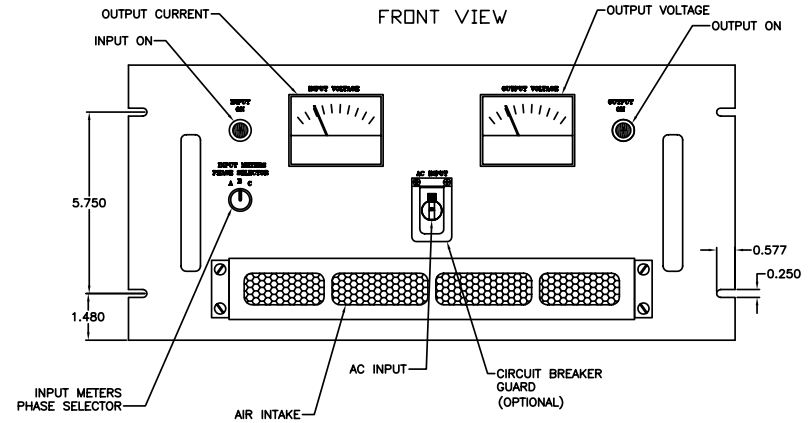
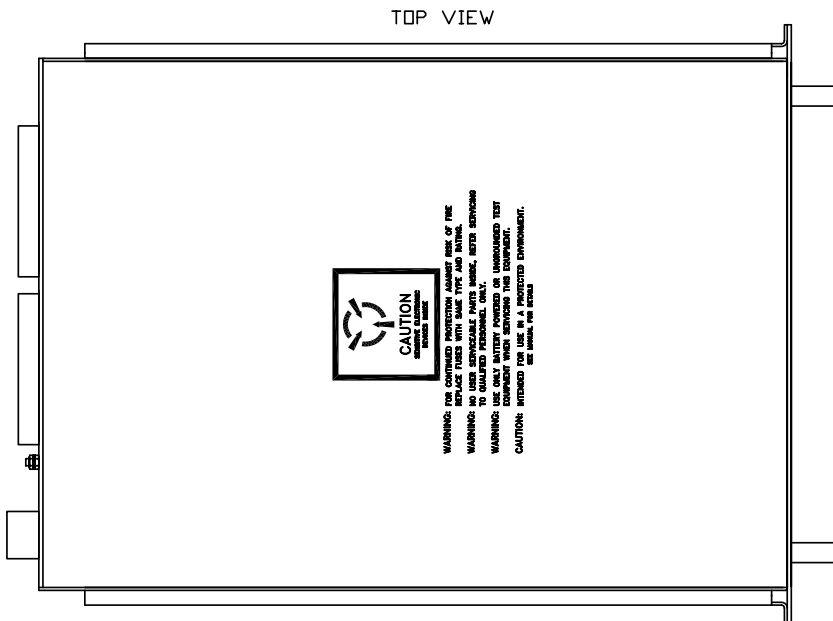
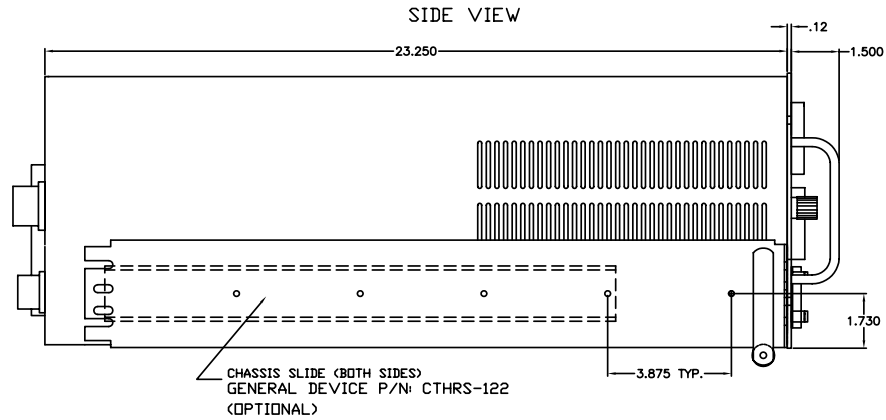


NOTES:

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



TYPICAL GSFC 3-6 KVA CHASSIS OUTLINE DRAWING





RUGGED AC POWER SYSTEMS



SELECT UNITS QUALIFIED TO MIL-STD-810, MIL-S-901, MIL-STD-1399, MIL-STD-461, MIL-STD-167, MIL-STD-740, RTCA/DO-160, AND MORE

RUGGED TRUE ONLINE UPS



500 W – 500+ KW

Rack Mount, Bulkhead Mount, and Freestanding

Single and Three Phase

50, 60, and 400 Hz.

PURE SINEWAVE DC-AC INVERTERS



100 W – 500+ KW

Rack Mount, Bulkhead Mount, and Freestanding

Single and Three Phase

50, 60, and 400 Hz.

SOLID-STATE FREQUENCY CONVERTERS



100 W – 500+ KW

Rack Mount, Bulkhead Mount, and Freestanding

Single and Three Phase

50, 60, and 400 Hz.

POWER DISTRIBUTION UNITS (PDUs)



Basic, Switched, Auto-Transfer Switching, and Metered Configurations

Rack Mount, Bulkhead Mount, and Freestanding

Single and Three Phase

CUSTOM EMI FILTERS



For MIL-STD-461 Compliance

Rack Mount, Bulkhead Mount, and Freestanding

Single and Three Phase

RUGGED PORTABLE TRANSFORMERS



100 W – 500+ KW

Rack Mount, Bulkhead Mount, and Freestanding

Single and Three Phase

EXTERNAL MAINTENANCE BYPASS SWITCHES (MBSSs)



Rack Mount, Bulkhead Mount, and Freestanding

Single and Three Phase

CUSTOM DESIGNS



Designed & Built to Spec

Integrated AC & DC Capabilities

Multiple Outputs

RELIABLE AC POWER WHEN AND WHERE YOU NEED IT SEVERE ENVIRONMENT PRODUCTS



- AIRBORNE
- SHIPBOARD
- MOBILE

• RACK MOUNT & FREESTANDING

• 50, 60, AND 400 Hz

• AIR & WATER COOLED

• SINGLE AND THREE PHASE

• LIGHTWEIGHT DESIGNS

