



NOVA ELECTRIC



POPULAR OPTIONS

- Ruggedization Against Shock, Vibration, And Humidity
- MS Connector Mates
- Multiple Output Outlets
- Shock Mounts
- Floor Mounts
- Custom enclosures
- 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.
- AUX DC Outputs
- Input Volt and Amp Meter Set *(Available On Select Models)*
- Elapsed Time Meter *(Available On Select Models)*
- Power Distribution Units (PDUs)
- Environmental Stress Screening Services

CONTACT

100 School Street,
Bergenfield, NJ 07621 USA

(201) 385-0500

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Galaxy Series 500 W – 30 KW Wall / Floor Mount Transformer Isolated Solid-State Frequency Converters



The Leader In Rugged Power Conversion Technology Since 1966

Rev B-January-8-2020



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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

SPECIFICATIONS

Electrical

POWER RATINGS	500 Watts – 30+ KW
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 (Available in single phase configuration. Three-phase output is available by special order, but for most three-phase applications we suggest our Jupiter Series Frequency Converters)
FREQUENCY	50 Hz, 60 Hz, or 400 Hz (±0.5%)
FREQUENCY REGULATION	± 0.5% NL to FL (Crystal Available)
FREQUENCY TRANSIENTS	None
VOLTAGE REGULATION	± 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

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 and 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-MDBK-217
MTTR	Less than 30 Minutes

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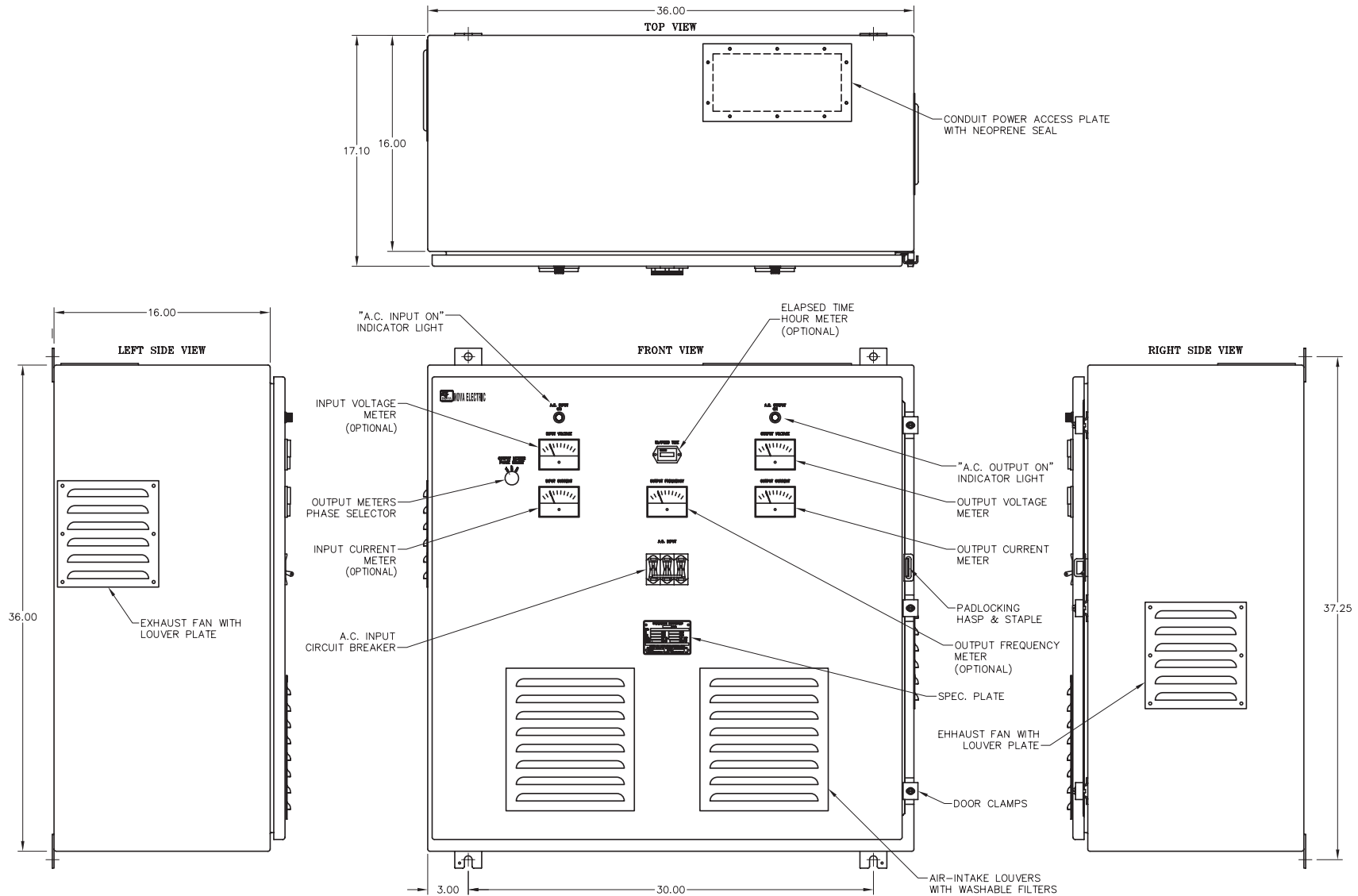


PARTIAL MODEL SELECTION

MODEL	KVA	OUTPUT VOLTAGE	OUTPUT FREQUENCY (Hz)	WEIGHT (LB)	SIZE (HxWxL)
GHFC1K50	1	220	50	140	24" x 20" x 6"
GHFC1K60	1	120	60	150	24" x 20" x 6"
GHFC1K400	1	115	400	130	24" x 20" x 6"
GHFC2K50	2	220	50	165	24" x 20" x 8.50"
GHFC2K60	2	120	60	160	24" x 20" x 8.50"
GHFC2K400	2	115	400	155	24" x 20" x 8.50"
GHFC3K50	3	220	50	225	24" x 20" x 8.50"
GHFC3K60	3	120	60	220	24" x 20" x 8.50"
GHFC3K400	3	115	400	210	24" x 20" x 8.50"
GHFC5K50	5	220	50	265	30" x 26" x 11"
GHFC5K60	5	120	60	260	30" x 26" x 11"
GHFC5K400	5	115	400	250	30" x 26" x 11"
GHFC7.5K50	7.5	220	50	C/F	30" x 26" x 17"
GHFC7.5K60	7.5	120	60	C/F	30" x 26" x 17"
GHFC7.5K400	7.5	115	400	C/F	30" x 26" x 17"
GHFC10K50	10	220	50	C/F	36" x 36" x 17"
GHFC10K60	10	120	60	C/F	36" x 36" x 17"
GHFC10K400	10	115	400	C/F	36" x 36" x 17"
GHFC15K50	15	220	50	C/F	36" x 36" x 17"
GHFC15K60	15	120	60	C/F	36" x 36" x 17"
GHFC15K400	15	115	400	C/F	36" x 36" x 17"
GHFC20K50	20	220	50	C/F	C/F
GHFC20K60	20	120	60	C/F	C/F
GHFC20K400	20	115	400	C/F	C/F
GHFC25K50	25	220	50	C/F	C/F
GHFC25K60	25	120	60	C/F	C/F
GHFC25K400	25	115	400	C/F	C/F
GHFC30K50	30	220	50	C/F	C/F
GHFC30K60	30	120	60	C/F	C/F
GHFC30K400	30	115	400	C/F	C/F

**Specifications subject to change without notice.*

TYPICAL GHFC 10-15 KVA CHASSIS OUTLINE DRAWING



NOTES:

1. ALL DIMENSIONS ARE IN INCHES, UNLESS OTHERWISE SPECIFIED.
2. ALL UNDIMENSIONED PICTORIAL CONFIGURATIONS ARE FOR REFERENCE ONLY.
3. FRONT AND TOP MARKINGS FOR REFERENCE ONLY.
4. MODIFY CABINET AS PER DRAWING #061012.
5. CABINET PAINTED - ANSI #61 GRAY SEMI-GLOSS.
6. FRONT PANEL SILK-SCREEN IN BLACK EPOXY INK.

ALL DIMENSIONS ARE FROM OUTSIDE.



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Some optional equipment shown. Specifications subject to change without notice.





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

