



NOVA ELECTRIC



POPULAR OPTIONS

- Ruggedization Against Shock, Vibration, And Humidity
- MS Connector Mates
- Multiple Output Outlets
- Shock Mounts
- Floor Mounts
- Custom enclosures
- 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)
- RTCA/DO-160G Compliant Aircraft Grade Package
- Power Distribution Units (PDUs)
- Environmental Stress Screening Services

CONTACT

100 School Street,
Bergenfield, NJ 07621 USA

(201) 385-0500

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GHFC Series 1.5-3 KVA Wall / Floor Mount Cabinet Solid-State Three-Phase 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-STD-167, MIL-S-901, MIL-STD-1472, MIL-STD-461, and other standards optionally. These models are especially 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

The Leader In Rugged Power Conversion Technology Since 1966

Rev A-October-23-2019



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SPECIFICATIONS

Electrical

| | |
|----------------------------------|--|
| POWER RATINGS | 1.5 KVA – 3 KVA |
| INPUT VOLTAGE | Most Standard AC Voltages Including 115, 120, 200, 208, 220, 240, 277, 380, and 480 <i>(Available in Single and Three-Phase Configurations)</i> |
| OUTPUT VOLTAGE | Most Standard Three-Phase AC Voltages Including 120/208, 115/200, 220/380, and 277/480 |
| FREQUENCY | 50 Hz, 60 Hz, or 400 Hz ($\pm 0.5\%$) |
| FREQUENCY REGULATION | $\pm 0.5\%$ NL to FL <i>(Crystal Available)</i> |
| FREQUENCY TRANSIENTS | None |
| VOLTAGE REGULATION | $\pm 1.5\%$ N.L. to F.L. |
| EFFICIENCY | Approximately 85-95% <i>(Depending on Model)</i> |
| 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 <i>(Three-Phase Models)</i> |

Environmental

| | |
|------------------------|--|
| OPERATING TEMP. | -20°C to +50°C Standard -40°C to +71°C Optional <i>(On Selected Models)</i> |
| 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-HDBK-217 |
| MTTR | Less than 30 Minutes |

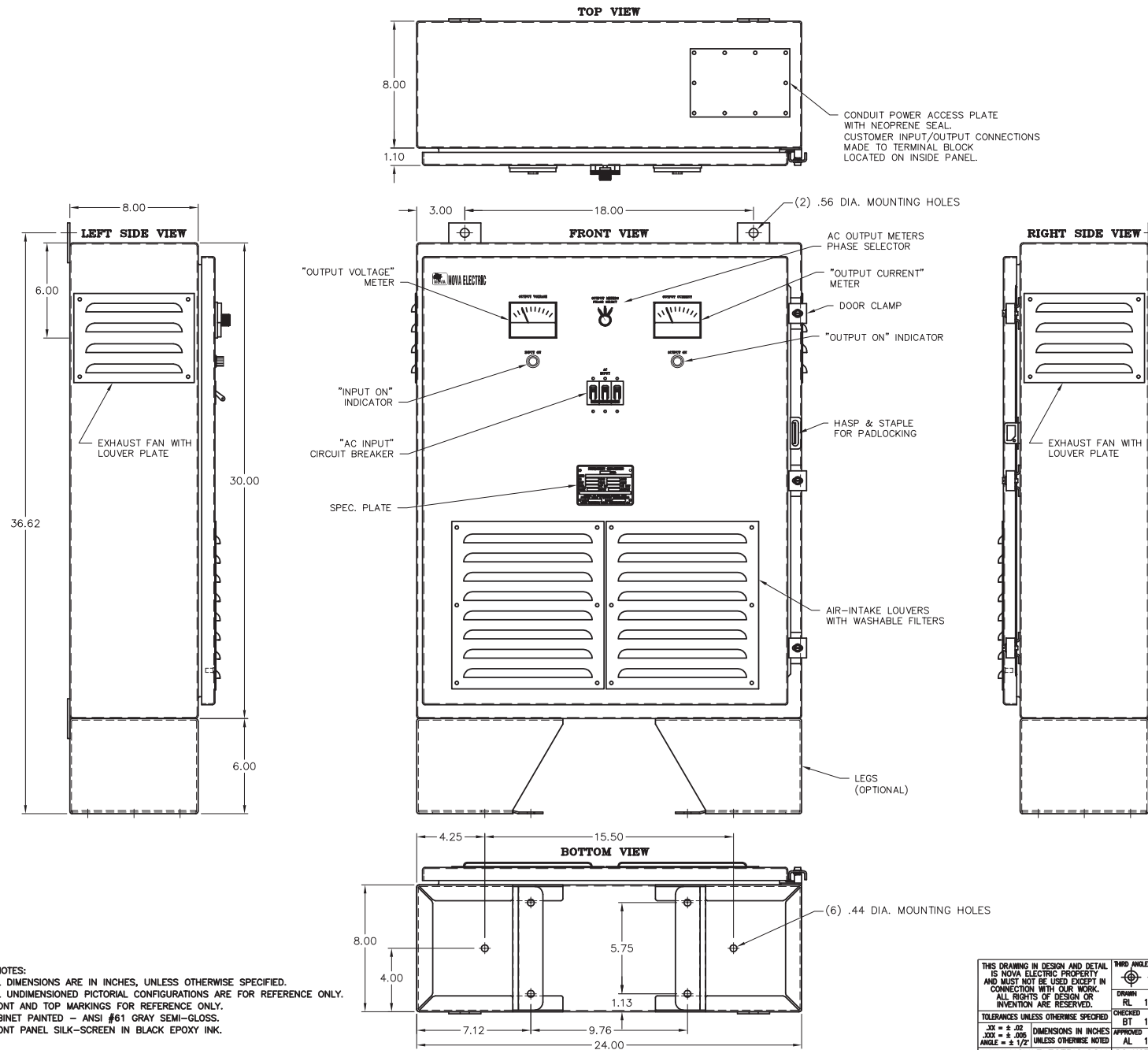
PARTIAL MODEL SELECTION

| MODEL | KVA | OUTPUT VOLTAGE | OUTPUT FREQUENCY (Hz) | WEIGHT (LB) | SIZE (HxWxL) |
|-------------|-----|----------------|-----------------------|-------------|----------------|
| GHFC1.5K3/5 | 1.5 | 220/380 | 50 | 130 | 30" x 24" x 8" |
| GHFC1.5K3/6 | 1.5 | 120/208 | 60 | 130 | 30" x 24" x 8" |
| GHFC1.5K3/4 | 1.5 | 115/200 | 400 | 130 | 30" x 24" x 8" |
| GHFC2K3/5 | 2 | 220/380 | 50 | 140 | 30" x 24" x 8" |
| GHFC2K3/6 | 2 | 120/208 | 60 | 140 | 30" x 24" x 8" |
| GHFC2K3/4 | 2 | 115/200 | 400 | 140 | 30" x 24" x 8" |
| GHFC3K3/5 | 3 | 220/380 | 50 | 145 | 30" x 24" x 8" |
| GHFC3K3/6 | 3 | 120/208 | 60 | 145 | 30" x 24" x 8" |
| GHFC3K3/4 | 3 | 115/200 | 400 | 145 | 30" x 24" x 8" |

**Specifications subject to change without notice.*

The Leader In Rugged Power Conversion Technology Since 1966

TYPICAL GHFC SERIES WALL / FLOOR MOUNT CABINET SOLID-STATE THREE PHASE FREQUENCY CONVERTERS OUTLINE DRAWING



| | | | | | |
|--|----------|------------------------|----------|--|--|
| THIS DRAWING IN DESIGN AND DETAIL IS NOVA ELECTRIC PROPERTY AND MUST NOT BE USED EXCEPT IN CONNECTION WITH OUR WORK. ALL RIGHTS OF DESIGN OR INVENTION ARE RESERVED. | | THIRD ANGLE PROJECTION | | NOVA ELECTRIC A DIV. OF TECHNOLOGY DYNAMICS INC. 100 SCHOOL STREET BERGENFIELD, N.J. 07621-2915 | |
| DRAWN | DATE | CHECKED | DATE | OUTLINE DRAWING, GHFC-SERIES | |
| RL | 12/10/12 | BT | 12/10/12 | C 9981055 | |
| TOLERANCES UNLESS OTHERWISE SPECIFIED: | | DIMENSIONS IN INCHES | | PAGE: 20/10 SHEET: 1 of 1 REV | |
| .XX = ± .02 | | .XXX = ± .005 | | | |
| ANGLE = ± 1/2° | | UNLESS OTHERWISE NOTED | | | |
| WWW.NOVAELECTRIC.COM | | DO NOT SCALE | | | |





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 FREQUENCY CON-



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

