



NOVA ELECTRIC



POPULAR OPTIONS

- Ruggedization Against High Shock, Vibration and Humidity
- Custom Output Frequency For Rail – 25, 91.66, 100, 200, and 250 Hz. available
- MS Connector Mates
- Shock Mounts
- Floor Mounts
- Internal Transfer Switch (Static or Electromechanical)
- High IP Protection for Front / Rear Panels 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)
- Environmental Stress Screening Services

CONTACT

100 School Street,
Bergenfield, NJ 07621 USA

(201) 385-0500

novaelectric.com
info@novaelectric.com

Galaxy Series Floor / Wall Mount 72 VDC Nominal Input / 1-7.5 KVA Pure Sine Wave DC-AC Inverters



• Pure Sine Wave Output

• High Reliability

**• Overload, Overvoltage,
and Overtemp Protected**

**• Transformer-Isolated
For High Inrush Loads**

• Extremely Rugged Construction

• Conformal Coated PCBs

**• Custom Voltages and
Frequencies Available**

**• All Hardware
Is Stainless Steel**

The Leader In Rugged Power Conversion Technology Since 1966

Rev A-October-10-2019



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GENERAL OVERVIEW

The transformer-isolated Galaxy Series Rugged Inverters are designed for harsh environment, military, and rail applications, and feature an optional advanced Internal Suppression Filter Network (ISFN) to suppress the significant transients usually associated with these types of conditions. They can be built to meet MIL-STD-810, MIL-S-901, MIL-STD-1472, MIL-STD-461, MIL-STD-167 and other standards optionally. Transformer-isolated topology makes these Inverters suitable for very high inrush loads, such as motors and compressors. These models utilize the most durable components, offering maximum field-proven reliability for severe environment and high reliability applications such as:

- Rail and Trolley Applications
- Military Applications: Including HMMWV, UAV, Shipboard, Submarine, Aircraft, Mobile Power Units, Shelters, Transportable Systems, Tactical Systems, Ground Support, and more
- Heavy-Duty Industrial Applications
- Demanding Commercial Applications
- Communications Systems
- Utility Applications
- MIL-STD-810
- MIL-S-901
- MIL-STD-167

SPECIFICATIONS

Electrical

INPUT VOLTAGE	62 – 84 VDC (Extended Range Available)
OUTPUT VOLTAGE	See Table
FREQUENCY	50 Hz, 60 Hz, 400 Hz ($\pm 0.5\%$)
FREQUENCY REGULATION	$\pm 0.5\%$ N.L. to F.L.
VOLTAGE REGULATION	$\pm 1.5\%$ N.L. to F.L.
EFFICIENCY	Approximately 80% (Depending On Model)
REACTIVE LOAD	0.75 Lead to 0.75 Lag
DISTORTION	5% THD, 3% Single Harmonic
OVERLOAD	125% for 5 Minutes
OVERLOAD PROTECTION RANGE	Automatic Overload & Short Circuit Protection
SYNC & PHASE LOCK RANGE	± 3 Hz, Typical (50/60 Hz models)
TRANSIENT RESPONSE	Approx. 1/4 Cycle Recovery to 95% of Nominal

Environmental & Mechanical

OPERATING TEMP.	-20°C to +50°C Standard -40°C to +71°C Optional
COOLING	By Internal DC Brushless Fan
VIBRATION	Normal Shipping and Handling
SHOCK	20g, 11 mS Half Sinewave
HUMIDITY	to 95% RH Non-Condensing
EMI	Designed to Meet FCC Part 15, Class A, Can Meet MIL-STD-461 with Additional Filtering

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POPULAR OPTIONS

- Ruggedization Against High Shock, Vibration and Humidity
- MS Connector Mates
- Shock Mounts
- Floor Mounts
- Internal Transfer Switch (Static or Electromechanical)
- High IP Protection for Front / Rear Panels (Typically IP32)
- Input Volt and Amp Meter Set (Available on Select Models)
- Elapsed Time Meter (Available on Select Models)
- Environmental Stress Screening Services

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PARTIAL 60 Hz MODEL SELECTION – SPECIALTY VOLTAGES AND FREQUENCIES AVAILABLE UPON REQUEST

MODEL	OUTPUT VAC	OUTPUT FREQ. (Hz)	CONT. OUTPUT POWER	APPROX. WEIGHT (LB)	SIZE (HxWxL)
GH5060-72	120	60	500 VA	95	24" x 20.75" x 7.15"
GH1K60-72	120	60	1 KVA	95	24" x 20.75" x 7.15"
GH2K60-72	120	60	2 KVA	120	30" x 24" x 8"
GH3K60-72	120	60	3 KVA	130	30" x 24" x 12"
GH5K60-72	120	60	5 KVA	140	30" x 24" x 12"

PARTIAL 50 Hz MODEL SELECTION – SPECIALTY VOLTAGES AND FREQUENCIES AVAILABLE UPON REQUEST

MODEL	OUTPUT VAC	OUTPUT FREQ. (Hz)	CONT. OUTPUT POWER	APPROX. WEIGHT (LB)	SIZE (HxWxL)
GH5050-72(220)	220	50	500 VA	95	24" x 20.75" x 7.15"
GH1K50-72(220)	220	50	1 KVA	95	24" x 20.75" x 7.15"
GH2K50-72(220)	220	50	2 KVA	120	30" x 24" x 8"
GH3K50-72(220)	220	50	3 KVA	130	30" x 24" x 12"
GH5K60-72(220)	220	50	5 KVA	140	30" x 24" x 12"

PARTIAL 400 Hz MODEL SELECTION – SPECIALTY VOLTAGES AND FREQUENCIES AVAILABLE UPON REQUEST

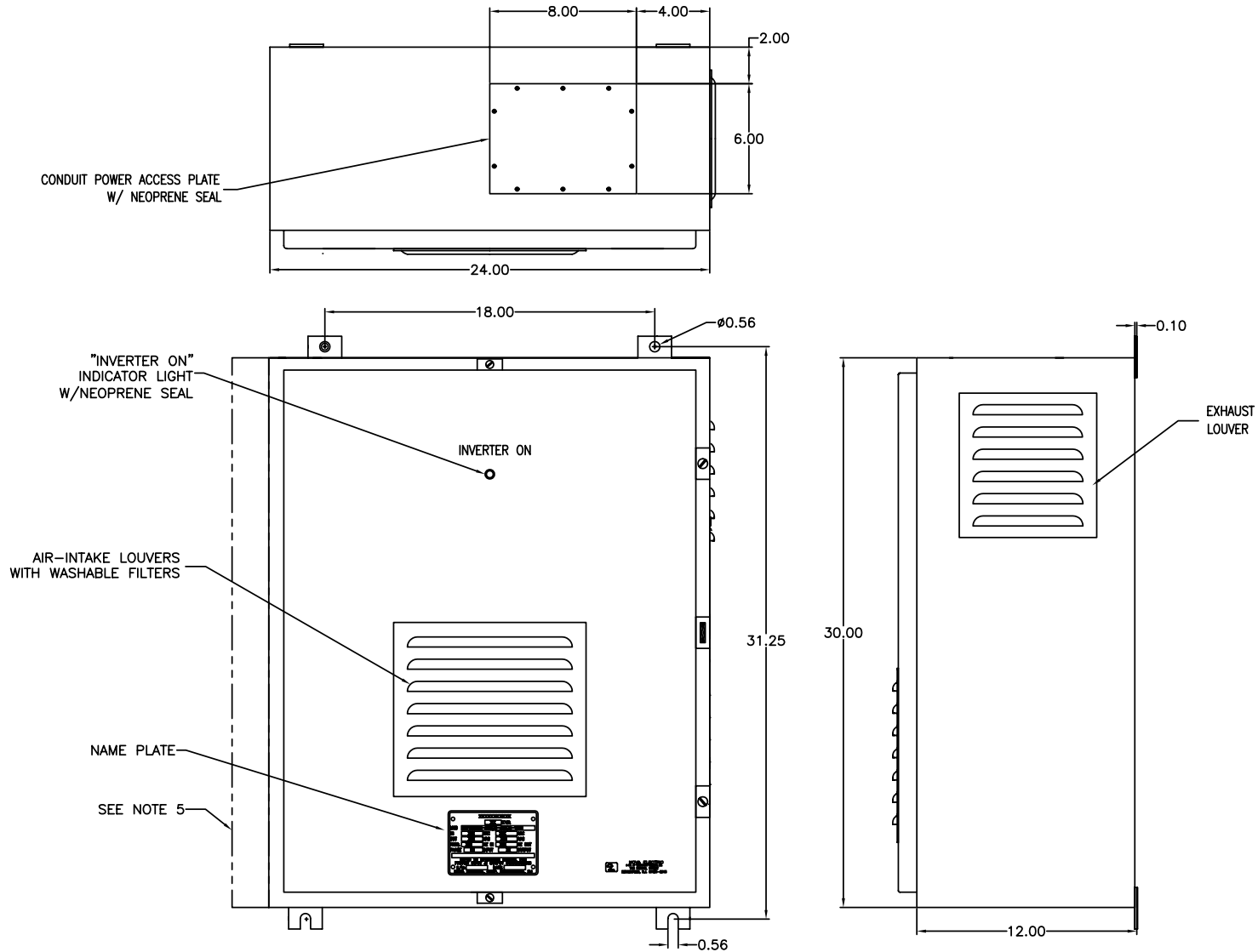
MODEL	OUTPUT VAC	OUTPUT FREQ. (Hz)	CONT. OUTPUT POWER	APPROX. WEIGHT (LB)	SIZE (HxWxL)
GH50400-72(115)	115	400	500 VA	95	24" x 20.75" x 7.15"
GH1K400-72(115)	115	400	1 KVA	95	24" x 20.75" x 7.15"
GH2K400-72(115)	115	400	2 KVA	120	30" x 24" x 8"
GH3K400-72(115)	115	400	3 KVA	130	30" x 24" x 12"
GH5K 400-72(115)	115	400	5 KVA	140	30" x 24" x 12"

PARTIAL 3 PHASE MODEL SELECTION – SPECIALTY VOLTAGES AND FREQUENCIES AVAILABLE UPON REQUEST

MODEL	OUTPUT VAC	OUTPUT FREQ. (Hz)	CONT. OUTPUT POWER	APPROX. WEIGHT (LB)	SIZE (HxWxL)
GH1.5K3/5-72	220/380	50	1.5 KVA	150	24" x 20.75" x 7.15"
GH1.5K3/6-72	120/208	60	1.5 KVA	150	24" x 20.75" x 7.15"
GH1.5K3/4-72	115/200	400	1.5 KVA	120	24" x 20.75" x 7.15"
GH3K3/5-72	220/380	50	3 KVA	180	30" x 24" x 12"
GH3K3/6-72	120/208	60	3 KVA	160	30" x 24" x 12"
GH3K3/4-72	115/200	400	3 KVA	140	30" x 24" x 12"
GH6K3/5-72	220/380	50	6 KVA	220	30" x 24" x 16"
GH6K3/6-72	120/208	60	6 KVA	200	30" x 24" x 16"
GH6K3/4-72	115/200	400	6 KVA	180	30" x 24" x 16"
GH7.5K3/5-72	220/380	50	7.5 KVA	260	30" x 24" x 16"
GH7.5K3/6-72	120/208	60	7.5 KVA	240	30" x 24" x 16"
GH7.5K3/4-72	115/200	400	7.5 KVA	260	30" x 24" x 16"

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TYPICAL 3-5 KVA WALL / FLOOR MOUNT GALAXY SERIES 72 VDC PURE SINE WAVE DC-AC INVERTER OUTLINE DRAWING



NOTES:

1. INVERTER CABINET HAS (4) MTG EARS.
2. FINISH: ANSI #61 GRAY, SEMI-GLOSS.
3. ENCLOSURE TYPE: NEMA 12, P/N SCE-302410LP
4. CERTAIN APPLICATIONS REQUIRE EXTERNAL HEATSINK ON LEFT SIDE - MAX EXTENSION 2".





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

