

# RUGGED RACK MOUNT INVERTERS

3 PHASE PURE SINEWAVE OUTPUT

50 Hz 60 Hz 400 Hz OUTPUT



1U



2U



3U



5U

## 24 VDC - 270 VDC MODELS

### APPLICATIONS

Shelters  
Tactical Systems  
Shipboard Power  
HMMWVs  
Mobile Systems  
Ground Support  
Aircraft  
Industrial

### OPTIONAL COMPLIANCES

BY DESIGN OR TEST (See Notes)

MIL-STD-810  
MIL-STD-1275 <sup>(1)</sup>  
MIL-STD-461 <sup>(2)</sup>  
MIL-STD-167  
MIL-STD-704  
MIL-S-901 <sup>(3)</sup>

NOTE: (1) May require additional external module. (2) May require external EMI Filter. (3) Requires external shock absorbers.

**NOVA ELECTRIC** Leader in power conversion technology since 1966  
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Specifications subject to change without notice. **MADE IN USA**



# 3Ø RACK MOUNT INVERTER 1U, 2U, 3U & 5U

## Airborne Applications • Naval • Ground

### APPLICATIONS

The NGLRK inverters are intended for industrial and military applications where DC voltage needs to be converted to 50 Hz, 60 Hz or 400 Hz, 3Ø. These inverters are used for running electronic loads such as computers, monitors, printers, telecom systems and radios from 24-270 VDC derived from batteries and field generators. They can also be used for hand tools & motors. These units can be further ruggedized for military grade shock, vibration, temperature and humidity. Utilizing field proven technology, this series of rugged pure sinewave DC-AC Inverters is suitable for harsh environments and can be optionally customized for unique sizes and shapes. The output is 4 wire WYE with 3 phases and a neutral line. It can work with totally unbalanced 3Ø loads.

- |  |  |   |
|--|--|---|
| <input type="checkbox"/> MILITARY SHELTERS | <input type="checkbox"/> GROUND SUPPORT    | <input type="checkbox"/> MOBILE SYSTEMS |
| <input type="checkbox"/> TACTICAL SYSTEMS  | <input type="checkbox"/> SHIP APPLICATIONS | <input type="checkbox"/> COMMUNICATIONS |

### FEATURES

- Crystal Controlled Frequency
- Compact and light weight, yet rugged and vehicle rated.
- 80-88% efficient.
- Tightly regulated output voltage and freq.
- Able to supply inrush current.
- Factory set to 50 Hz, 60 Hz or 400 Hz output.
- Capable of driving highly reactive loads
- Capable of driving highly capacitive loads such as non PFC switching power supplies.
- Very low harmonic distortion, THD<3%.
- Suitable for vehicle mounting.
- Fan cooled with air filter.

### ELECTRICAL

Input Voltage (select): See Table

Output Voltage (select): See Table

Output Frequency: 50 Hz, 60 Hz or 400 Hz

Overload: 125% for 5 minutes

Output Waveform Sinewave: <3% THD

Output Regulation: ± 2.5%

MTBF: over 100,000 hours per field data

MTTR: 30 minutes

EMI: per MIL-STD-461E or F (Note 1)

### PROTECTIVE FEATURES

- Overload
- Overvoltage
- Overtemperature

### ENVIRONMENTAL

Operating Temperature: -20°C to +50°C

Storage Temperature: -40°C to + 85°C

Shock: 20g / 11 mS per MIL-STD-810

Vibration: per MIL-STD-810 for Airborne or

Surface Vehicle and MIL-STD-167 Shipboard

Humidity: per MIL-STD-810 to 95% non condensing

Note:

1. EMI Compliance will require additional internal or external EMI filtering, specify requirements.

### POPULAR OPTIONS

- MS Connector and Mates
- Chassis Slides
- Internal Electromechanical Transfer Switch
- EMI Filter (Input or Output)
- SNMP
- Remote ON/OFF
- Output Inhibit
- Input and Output Circuit Breakers
- Circuit Breaker Guards



1U



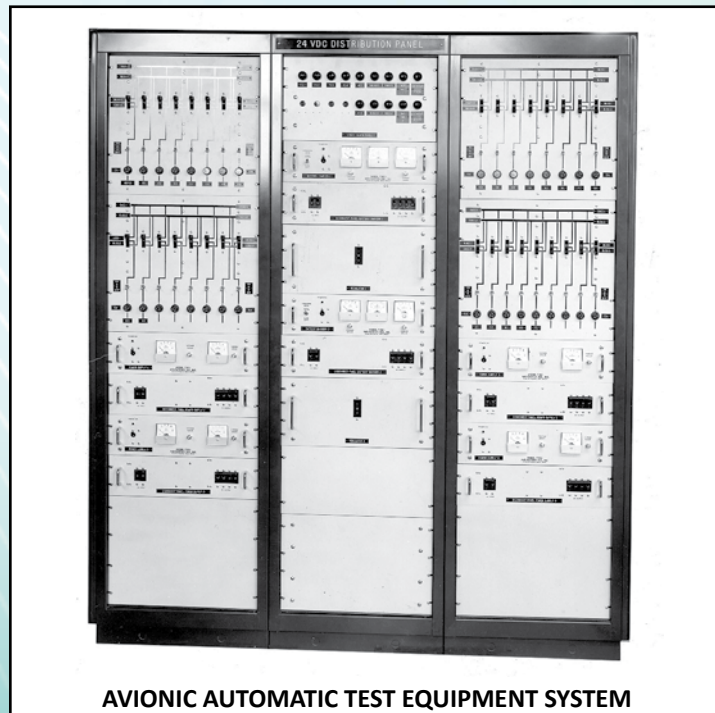
2U



3U



5U



AVIONIC AUTOMATIC TEST EQUIPMENT SYSTEM

Note:

All images are for reference only. Actual product may be somewhat different.

# 3Ø RACK MOUNT INVERTER 1U, 2U, 3U & 5U

## Airborne Applications • Naval • Ground

Partial 3 Phase Model Selection - 300VA, 3KVA, 6KVA and 9KVA

MODEL	KW / VA	OUTPUT FREQ. (Hz) <i>See "X" in Model</i>	NOMINAL INPUT (VDC) <i>See "YYY" in Model</i>	OUTPUT VOLTAGE (VAC) <i>See "ZZZ/ZZZ" in Model</i>	WEIGHT (Lb. / Kg.)	DIMENSIONS (H x W x L - Inch & [cm])
NGLRK0.3K3/X-YYY-ZZZ/ZZZ	0.3 KW 0.375 KVA	Select: <b>50   60   400</b>  Specialty frequencies also available. Consult Factory.	Select: <b>24   36   48</b> <b>72   120   270</b>  Specialty inputs also available. Consult Factory.	Select: <b>115/200   120/208</b> <b>220/380   230/400</b> <b>240/415</b>  Specialty outputs also available. Consult Factory.	26 lb 12 kg	1.75" x 19" x 24" [4.45 x 48.26 x 60.96]
NGLRK3K3/X-YYY-ZZZ/ZZZ	2.4 KW 3 KVA				35 lb 16 kg	3.5" x 19" x 24" [8.89 x 48.26 x 60.96]
NGLRK5K3/X-YYY-ZZZ/ZZZ	4 KW 5 KVA				46 lb 21 kg	5.25" x 19" x 24" [13.34 x 48.26 x 60.96]
NGLRK6K3/X-YYY-ZZZ/ZZZ	4.8 KW 6 KVA				60 lb 27 kg	8.75" x 19" x 24" [22.23 x 48.26 x 60.96]
NGLRK9K3/X-YYY-ZZZ/ZZZ	7.2 KW 9 KVA				60 lb 27 kg	8.75" x 19" x 24" [22.23 x 48.26 x 60.96]

## MODEL SELECTION

NGLRK   K3 / X - Y Y Y - Z Z Z / Z Z Z

1      2      3      4

1. OUTPUT POWER KVA SELECTION			2. OUTPUT FREQUENCY SELECTION		3. INPUT VOLTAGE SELECTION		4. OUTPUT VOLTAGE SELECTION	
CODE	POWER (KVA)		CODE	FREQUENCY	NOMINAL	RANGE	CODE	VOLTAGE
0.3K	0.375 KVA	(0.3 KW)	5	50 Hz	24	22-32	115/200	115/200
3K	3 KVA	(2.4 KW)	6	60 Hz	36	32-44	120/208	120/208
5K	5 KVA	(4 KW)	4	400 Hz	48	42-56	220/380	220/380
6K	6 KVA	(4.8 KW)			72	64-88	230/400	230/400
9K	9 KVA	(7.2 KW)			120	105-150	240/415	240/415
					270	240-300		

Example:

NGLRK	0.3K3	/	6	-	36	-	120/208
Inverter Style	Output Power KVA, 3 Phase		Output Frequency Selection		Input Voltage Selection		Output Voltage Selection

Note: For custom shapes and sizes contact factory at (201) 385 - 0500

## DISCLAIMER

Except where otherwise noted or superseded by process of law, Nova Electric accepts no responsibility or liability for any losses or damages of any kind arising out of the use of this catalog or any of its related functions.

## WARRANTY

All products of Nova Electric are warrantied for one year parts and labor. Repair is done at the Nova Electric service department.

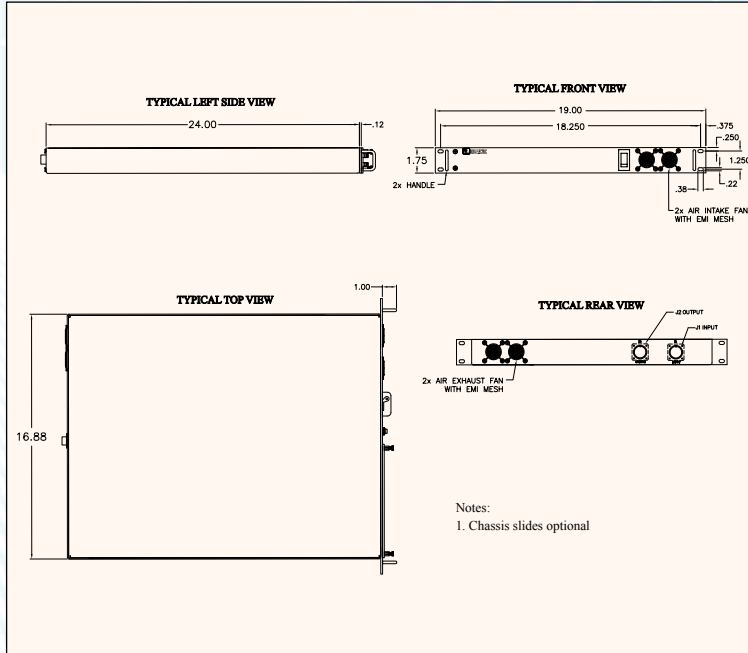


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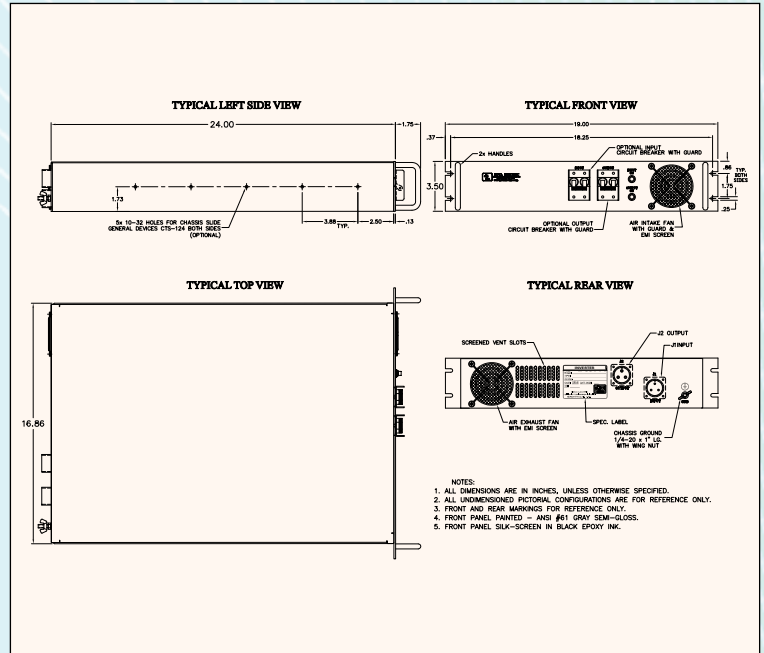
## Airborne Applications • Naval • Ground

### OUTLINE DRAWINGS

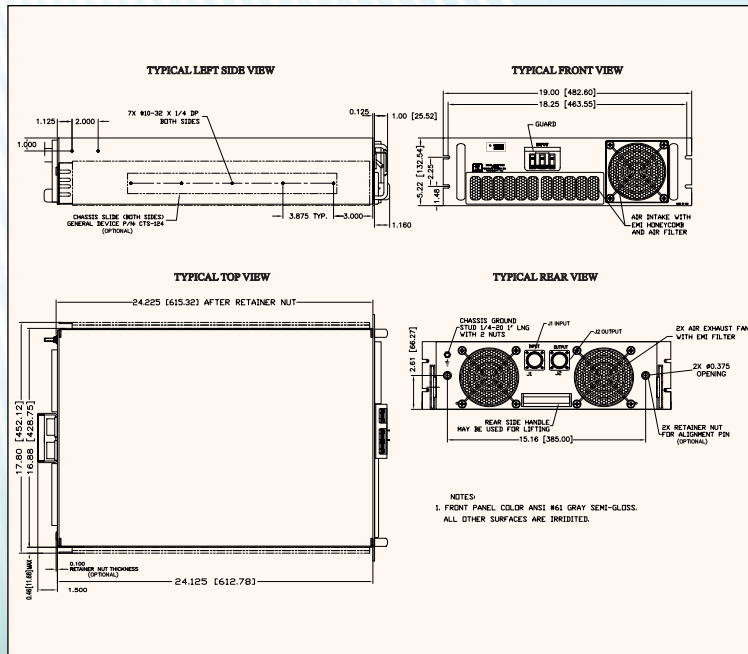
1U



2U



3U



5U

