



# NGL130W-SERIES RUGGED PURE SINEWAVE DC-AC/DC INVERTERS

• *Ultra Compact  
and Lightweight*

• *IP66 Protection*

• *Designed to Meet MIL-STD-810,  
MIL-STD-461, and MIL-STD-1275*



**These units are suitable for applications such as:**

- *Military Shelters*
- *Ground Support*
- *Mobile Systems*
- *Tactical Systems*
- *Military Ground Vehicles*
- *Shipboard Applications*
- *Airborne Applications*
- *Communications Systems*



**NOVA ELECTRIC**



## POPULAR OPTIONS

- MS connector Mates
- Wall Mount Plate
- Alternative Voltages and Frequencies
- Power Distribution Units (PDUs)
- Environmental Stress Screening Services

## CONTACT

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# NGL130W-SERIES RUGGED PURE SINEWAVE DC-AC/DC INVERTERS

## GENERAL OVERVIEW

Nova Electric's NGL130W-Series Rugged Pure Sinewave DC-AC/DC Inverters are specifically designed for harsh environment applications wherever standard utility-like power is needed at 50, 60, or 400 Hz. These are fully ruggedized against shock, vibration and humidity for ground mobile, naval, or aircraft applications, and offer protection from the elements up to IP66. The sealed design also allows for wide temperature operation, from -40C to +52C. Input is wide range 18-32 VDC per MIL-STD-1275, and output includes both fixed AC and multiple DC outputs (usually 5 VDC @ 10 Watts and 12 VDC @ 10 Watts.) These inverters are ideal for running electronic loads such as computers, monitors, printers, telecom systems, radios, fluorescent lamps from batteries, field generators, and solar electro-voltaic panels.

## SPECIFICATIONS

### Electrical

INPUT VOLTAGE	18-32 VDC per MIL-STD-1275
OUTPUT AC VOLTAGE	Select 115, 120, or 220 VAC (See Models Tab)
OUTPUT DC VOLTAGE #1	5 VDC @ 10 Watts
OUTPUT DC VOLTAGE #2	12 VDC @ 10 Watts
FREQUENCY	50 Hz, 60 Hz, or 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
TRANSIENT RESPONSE	Approx. 3 Cycle Recovery to 95% of Nominal

### Environmental & Mechanical

OPERATING TEMP.	-40°C to +52°C
STORAGE TEMP.	-40°C to +71°C
COOLING	External Heatsink
VIBRATION	per MIL-STD-810
SHOCK	20g, 11 mS Half Sinewave
HUMIDITY	per MIL-STD-810 to 95% RH Non-Condensing
EMI	Designed to Meet MIL-STD-461
SIZE	2" High x 7" Wide x 7" Deep



NGL130W-Series Front View

MODEL	INPUT RANGE VDC	OUTPUT VAC	OUTPUT FREQ. (HZ)	CONT. AC OUTPUT POWER	DC OUTPUTS	SIZE H x W x L
NGL130W-24-120/5VDC/12VDC-MIL	18-32VDC per MIL-STD-1275	120	60	130 Watts	5VDC @ 10 Watts and 12VDC @ 10 Watts	2" x 7" x 7"
NGL130W-24-220/5VDC/12VDC-MIL	18-32VDC per MIL-STD-1275	220	50	130 Watts	5VDC @ 10 Watts and 12VDC @ 10 Watts	2" x 7" x 7"
NGL130W-24-115/5VDC/12VDC-MIL	18-32VDC per MIL-STD-1275	115	400	130 Watts	5VDC @ 10 Watts and 12VDC @ 10 Watts	2" x 7" x 7"

Alternative DC Voltages available – please consult factory for details.

## NGL130W-Series Outline Drawing

NOTES:  
1. DO NOT SCALE FROM THIS DRAWING.

### CONNECTOR PIN DESIGNATION

#### J1 - DC INPUT:

PIN	DESCRIPTION
A	DC+
B	DC-
C	GND

MATING CONNECTOR:  
CA3106F14S-1SA206

#### J2 - AC OUTPUT:

PIN	DESCRIPTION
A	LINE
B	NEUTRAL
C	GROUND

MATING CONNECTOR:  
CA3106E14S-1PA206

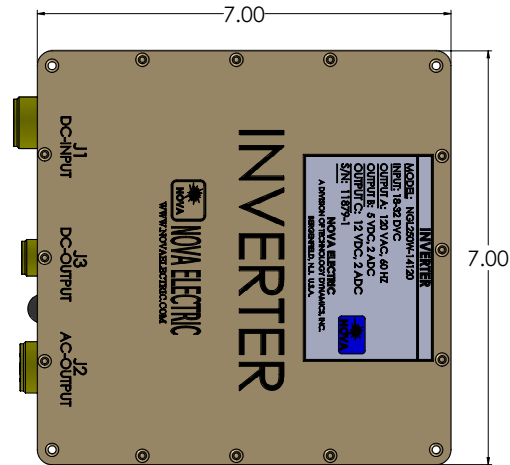
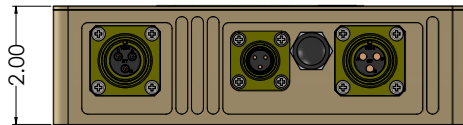
#### J3 - DC OUTPUT:

PIN	DESCRIPTION
A	+5V
B	+12V
C	COM

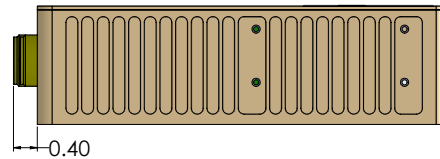
MATING CONNECTOR:  
CA3106F10SL-3PA206

(L)

### FRONT VIEW

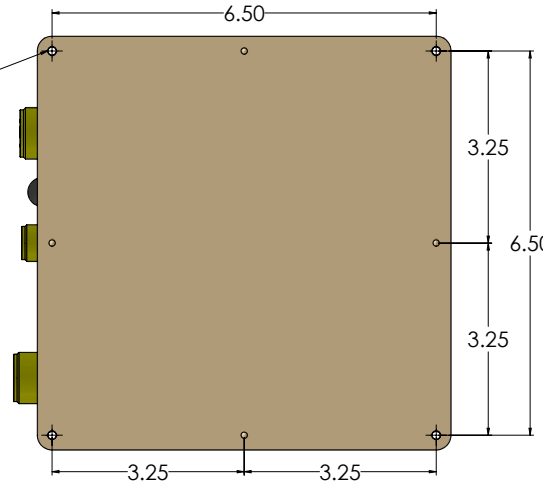


### TOP VIEW



### SIDE VIEW

4X #6-32 UNC-1B,  $\nabla$  THRU  
( $\varnothing 0.15$ )  
BOTTOM MOUNTING HOLES



### BOTTOM VIEW

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DATE/REVISION	DATE	DATE
11/28/15	11/28/15	11/28/15
DESIGNED BY	CHECKED BY	APPROVED BY
GLC	GLC	GLC
DATE	DATE	DATE
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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

