



# MIL SERIES 24 VDC NOMINAL INPUT PURE SINE WAVE DC-AC INVERTERS FOR MILITARY VEHICLES

- Compliance to MIL-STD-810  
and MIL-STD-461

- Compliance to  
MIL-STD-1275

- Ultra Compact  
and Lightweight



5 KVA



2.5 KVA



1.25 KVA



600 WATTS

**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

- MIL-STD-1275 Compliance
- MS Connector Mates
- Multiple Output Outlets
- Shock Mounts
- Electromechanical Transfer Switch
- Custom Enclosures
- CAD Free Connectors
- Non-PVC Wiring
- Custom Markings
- High IP Protection For Front / Rear Panels Including Louvers On All Intake And Exhaust, As Well As Fully Gasketed Breakers, Switches, And Indicators.
- AUX DC Outputs
- Power Distribution Units (PDUs)
- Environmental Stress Screening Services

## CONTACT

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# MIL SERIES 24 VDC NOMINAL INPUT PURE SINE WAVE DC-AC INVERTERS FOR MILITARY VEHICLES

## GENERAL OVERVIEW

The Galaxy-MIL Series Military Pure Sinewave DC-AC Inverters are extremely rugged by design, and built to withstand the rigors of harsh environment military applications where MIL-STD-461 and MIL-STD-810 apply. For ground vehicle applications, MIL-STD-1275D compliance is standard on the 1.25 KVA / 1 KW Model NGL1K60-24-120-MIL, and optional for the other models shown. These military inverter units are ultra reliable and used world-wide on a variety of high profile mission critical applications where light weight, high MTBF, and low MTTR are required. They can be easily customized with a variety of options (including rugged transit cases) to fit almost any military application from vehicular to aircraft.

## SPECIFICATIONS

### Electrical

INPUT VOLTAGE	20-32 VDC
MIL-STD-1275	Standard on Model NGL1K60-24-120-MIL Optional on other models
OUTPUT VOLTAGE	120 VAC (115 and 220 VAC Optional)
FREQUENCY	Choose 50 Hz, 60 Hz, Or 400 Hz (+/-0.5%)
FREQUENCY REGULATION	+/-0.5% N.L. to F.L.
VOLTAGE REGULATION	+/-1.5% N.L. to F.L.
EFFICIENCY	Approximately 85-86% (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



Optional Rugged Transit Case  
Shown With GL5K Model Installed

### Environmental & Mechanical (Typical)

OPERATING TEMP.	-32°C to +50°C per MIL-STD-810 (Extended Range Available)
STORAGE TEMP.	-40°C to +80°C per MIL-STD-810
RAIN & DRIPPING WATER	to MIL-STD-810F Method 506.4
VIBRATION	per MIL-STD-810F Method 514.5 on Iso-Mount
SHOCK	per MIL-STD-810F Method 516.5 on Iso-Mount
DROP	per MIL-STD-810F (Optional Transit Case)
HUMIDITY	To 95% RH non-condensing per MIL-STD-810F Method 507.4
FUNGUS	to MIL-STD-810F Method 508.5
SALT / FOG	per MIL-STD-810 Method 509.4
SAND / DUST	per MIL-STD-810 Method 510.4
ALTITUDE	to 15,000 feet per MIL-STD-810F Method 500.4
LIGHTNING PROTECTION	per MIL-STD-464 Near Strike Lightning (NSL) Requirements
EMI	MIL-STD-461E CE102, RE102, RS103, CS101, CS114, CS115, and CS116 – Optional External Filters are Available to Comply with Additional Parameters as Required. Compliance to FCC Part 15 Subpart B Class A also Available.
FINISH (TYPICAL)	ANSI-61 Gray Semi-Gloss – Optional CARC Paint IAW MIL-DTL-53039B (Green 383) – Consult Factory for Other Optional Finishes



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**TYPICAL 60 Hz MODELS**

MODEL	KVA / KW	SIZE (H x W x L)	WEIGHT (LBS)
NGL600W-24-120-MIL	600 W	3.5" x 8.75" x 16"	9.5
NGL1K60-24-120-MIL	1.25 / 1	3.0" x 5.0" x 13.7"	8
GL2.5K60-24-120-MIL	2.5 / 2	5.5" x 12" x 17"	35
GL5K60-24-120-MIL	5 / 4	5.25" x 19" x 22"	65

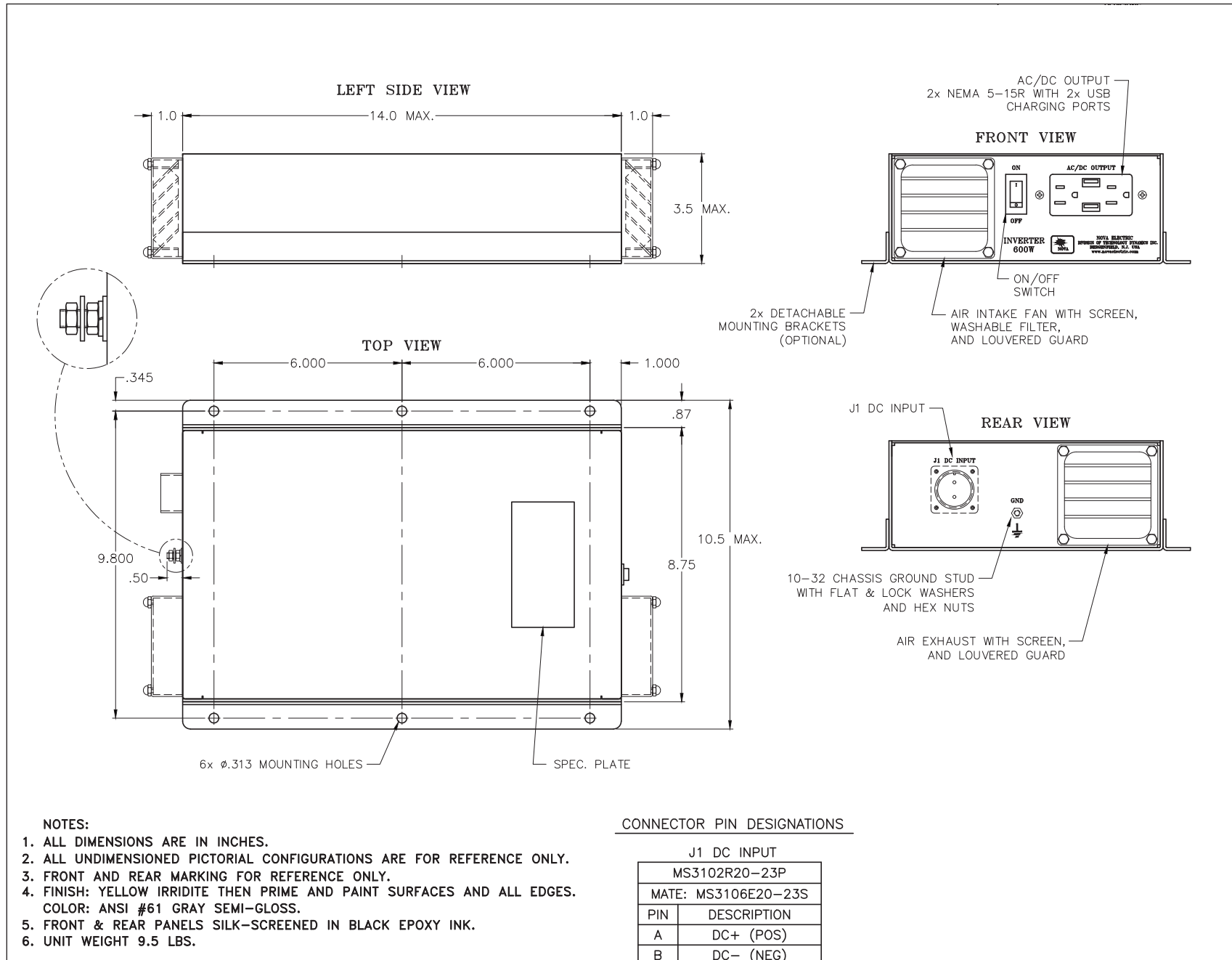
**TYPICAL 50 Hz MODELS**

MODEL	KVA / KW	SIZE (H x W x L)	WEIGHT (LBS)
NGL600W-24-220-MIL	600 W	3.5" x 8.75" x 16"	9.5
NGL1K50-24-220-MIL	1.25 / 1	3.0" x 5.0" x 13.7"	8
GL2.5K50-24-220-MIL	2.5 / 2	5.5" x 12" x 17"	35
GL5K50-24-220-MIL	5 / 4	5.25" x 19" x 22"	65

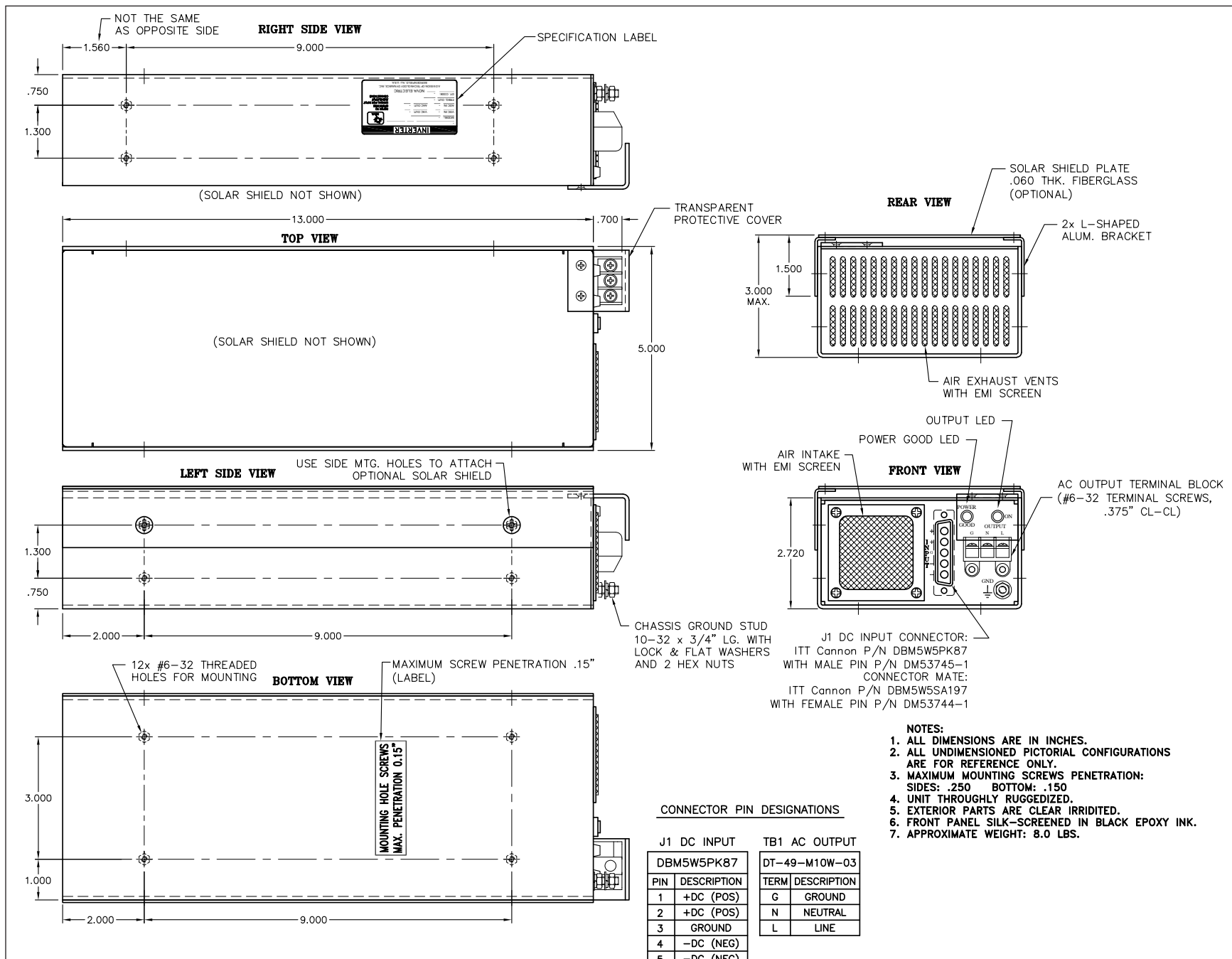
**TYPICAL 400 Hz MODELS**

MODEL	KVA / KW	SIZE (H x W x L)	WEIGHT (LBS)
NGL600W-24-115-MIL	600 W	3.5" x 8.75" x 16"	9.5
NGL1K400-24-115-MIL	1.25 / 1	3.0" x 5.0" x 13.7"	8
GL2.5K400-24-115-MIL	2.5 / 2	5.5" x 12" x 17"	35
GL5K400-24-115-MIL	5 / 4	5.25" x 19" x 22"	65

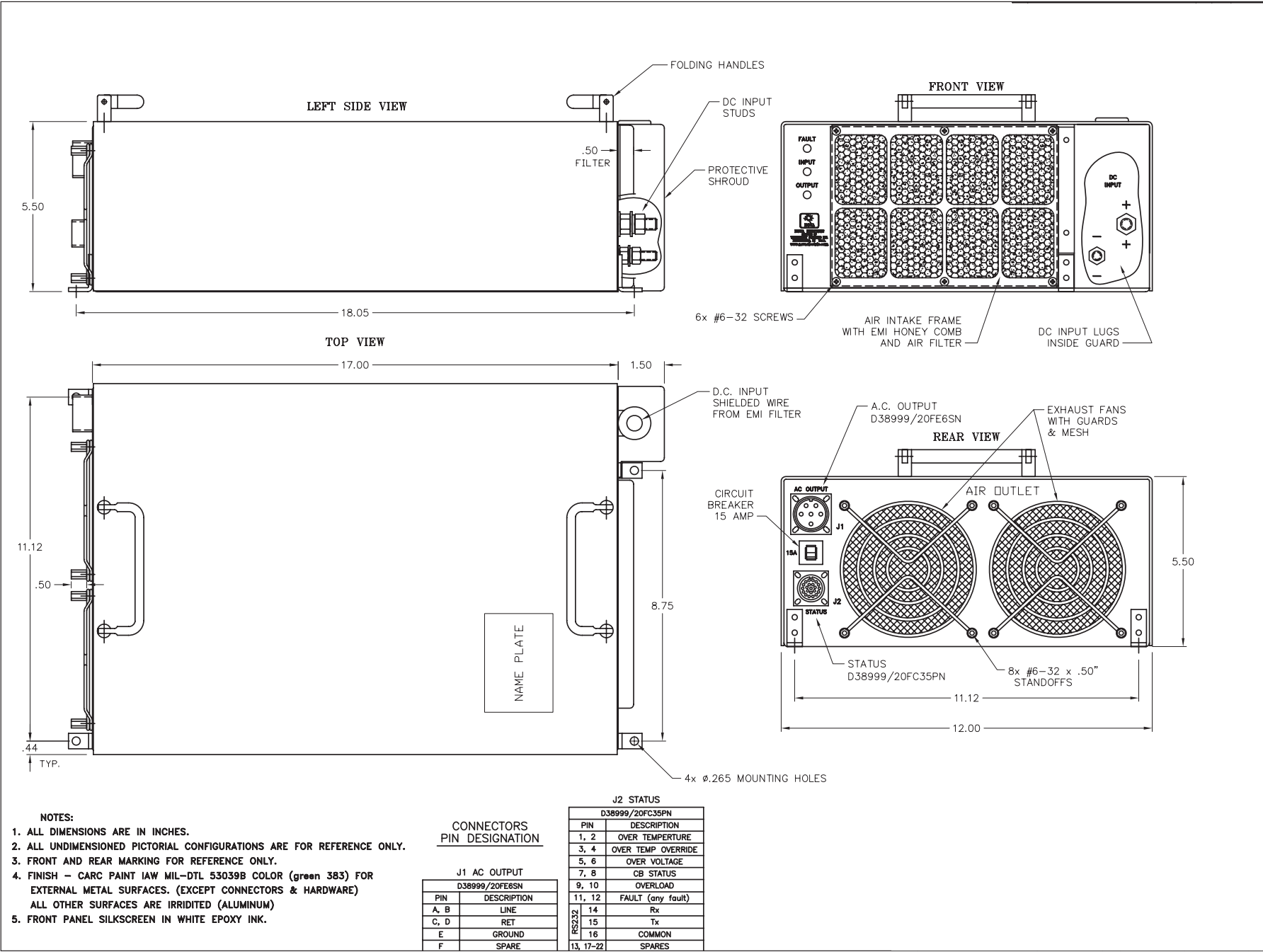
## TYPICAL NGL600W-24-120-MIL OUTLINE DRAWING



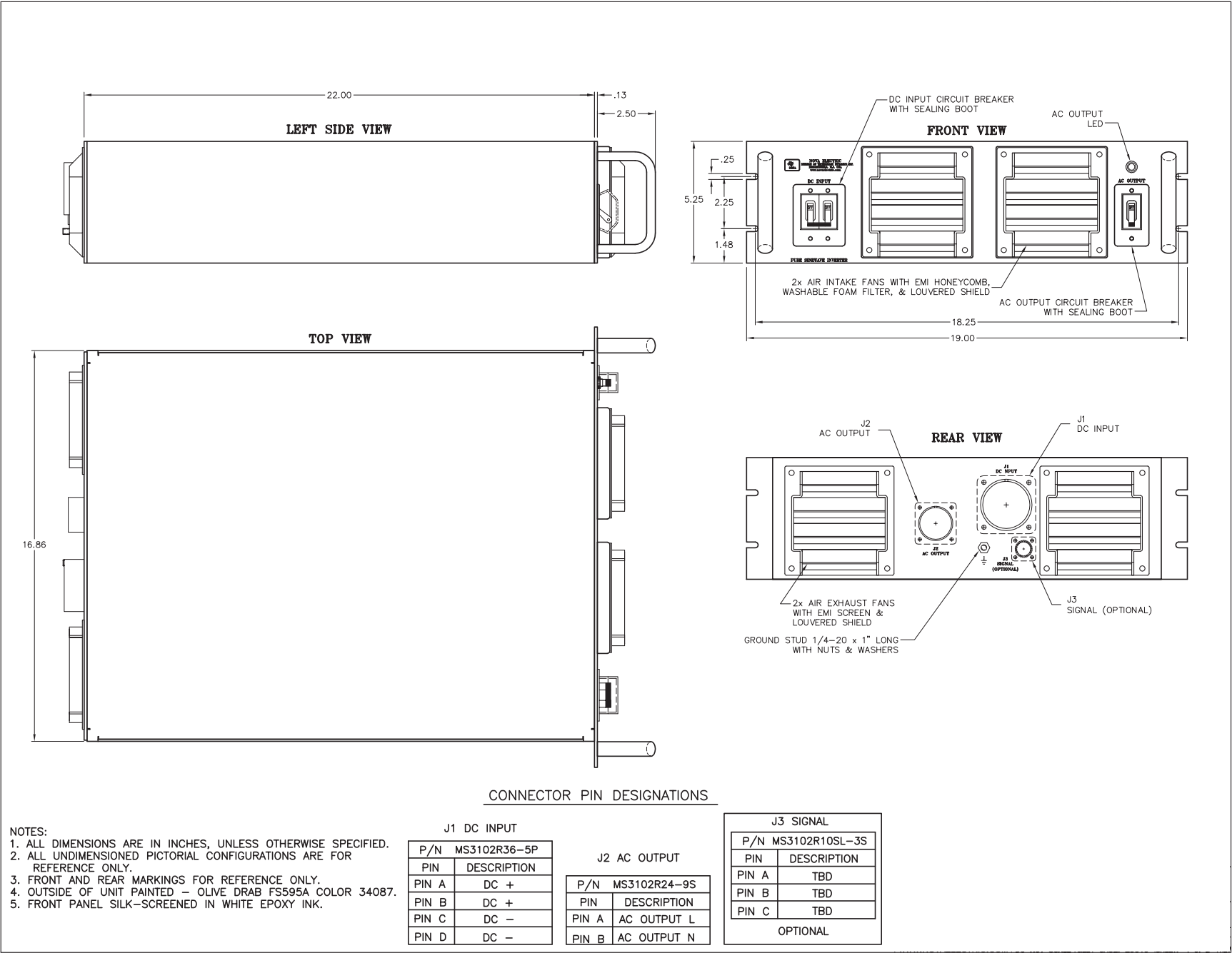
# TYPICAL NGL1K60-24-120-MIL OUTLINE DRAWING



# TYPICAL GL2.5K60-24-120-MIL OUTLINE DRAWING



# TYPICAL GL5K60-24-120-MIL OUTLINE DRAWING





# 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

