

# NG2602-x

## Overview

AC-DC Power Supply, Water Resistant (Sealed Enclosure), Three Phase 50/60Hz 208Vac Input (Line-Line), +28 Output, 5500W Max.

## Market(s)

Defense, Industrial

## Typical Application(s)

Electronic equipment rack, Onboard vehicle power



## Product Highlights

This ruggedized military Commercial Off the Shelf (COTS) power supply operates from a 3-Phase 208Vac input. The single output capability is the power supply solution for military COTS applications. It is designed to meet the environmental requirements of MIL-STD-810F. In comparison to other power supplies using conventional technology, this package provides users with higher efficiency, less weight, and higher power output. This power supply is designed to power military electronic equipment including communication centers. Contact Aegis Power Systems, Inc. for specific details on what applicable portions of a military standard is offered for this power converter power supply.

## Features

- 3 Phase 208Vac
- MIL-STD-810F Environmental \*
- MIL-STD-1275B +28V Vehicle Power \*
- Enclosed case power supply

\* Designed to meet applicable portions of this standard. Contact Aegis Power Systems, Inc. for specific details.

**Table 1: Maximum Continuous Operating Ratings**

Parameter	Rating	Unit	Notes
<b>Vin max range</b>	105 to 125	Vac	Line to Neutral
<b>Temperature</b>	-40 to +49	°C	-40 to +100 Non-operating
<b>Output Power</b>	5500	W	
<b>Input power</b>	6470	W	

## About Us

Aegis Power Systems, Inc. specializes in the design, development, and manufacture of AC-DC and DC-DC power supplies for high-performance, rugged, critical, and specialty applications. Markets served include defense, industrial, communications, aircraft, shipboard, rack mount, embedded computing, and electric vehicle applications. Contact us to find out if this item can be configured or redesigned to meet your specific technology need.

**SPECIFICATIONS**

**(Typical at 25°C, nominal line and 100% load, unless otherwise specified.)**

<b>Input Voltage</b>	3 Phase, 208Vac L-L, 50/60 Hz, Nominal, 120Vac Line to Neutral. Input range 47 - 63Hz, 182Vac - 216Vac Line-Line. 105Vac – 125Vac Line to Neutral.
<b>Input Current</b>	19A per phase (5500W Output)
<b>Input Power</b>	6470W
<b>Power Factor</b>	.90 (Passive Power Factor Correction)
<b>Holdup Time</b>	Contact Aegis Power Systems, Inc. for more details
<b>Output Power</b>	5500W Maximum
<b>Output Voltages</b>	+28Vdc - See table 2 for details .
<b>Efficiency</b>	85% Nominal, 83% Minimum.
<b>Output Ripple</b>	See table 2.
<b>Current Limit</b>	Short circuit protected with automatic recovery.
<b>Start-Up Time</b>	1 to 2 seconds
<b>Voltage Set Point</b>	25-30Vdc for +28VDC output (@25C ambient)
<b>Line/Load Regulation</b>	+/- 2%
<b>Temperature Regulation</b>	+/- 0.02% / °C.
<b>Temperature</b>	-40°C to +49°C Operating / -40°C to +100°C Non-operating
<b>Cooling</b>	Forced Fan Cooling. (Fans come on when needed.)
<b>Package</b>	Enclosed case chassis mounted.
<b>Dimensions</b>	16.4” D x 15.9” W x 7” H
<b>Weight</b>	50 lbs. maximum
<b>Color</b>	See table 4.
<b>Environmental</b>	Designed to meet applicable portions of MIL-STD-810F, Ground Mobile
<b>Humidity</b>	0 – 95% non-condensing
<b>EMI</b>	Designed to meet applicable portions of MIL-STD-461E (Additional filtering may be required dependent on application) Requirement: CE102, CS101, CS114, and RE102. (Ground Range)
<b>Built in Test</b>	Six Monitor Signals to drive six customer status LEDs 3 Input AC Phase OK, 3 Output DC Pwr OK

*Specifications subject to change without notice.*

**Table 2: Voltage Output (Nominal)**

V1	
Voltage	+28Vdc
Current	196A
Power	5500W
Ripple	280mVpk-pk*

\*840mVpk-pk Max, 20MHz Bandwidth Limited.

**Table 3: Connector Specifications**

**AC Input Connector P/N: MS3454W20-14P**

Contact Designation	Conductor Circuit
A	Neutral
B	Ground
C	PHASE C
D	PHASE A
E	PHASE B

**Status Connector P/N: MS3474W12-8S.**

Contact Designation	Conductor Circuit
A	AC OK Phase A
B	AC OK Phase B
C	AC OK Phase C
D	DC OK #1
E	DC OK #2
F	DC OK #3
G	+28VDC Status Power
H	No Connection

**DC Output Studs**

Connection	Circuit
Black 3/8" Stud	Return for DC output
Red 3/8" Stud	+28V Output



**Table 4: Color Options**

NG2602-x	COLOR
-G	Chemical Agent Resistant Coat IAW MIL-DTL-53072, Color NO. 34094 Lusterless Green
-T	Chemical Agent Resistant Coat IAW MIL-DTL-53072, Color No. 33446 Desert Tan

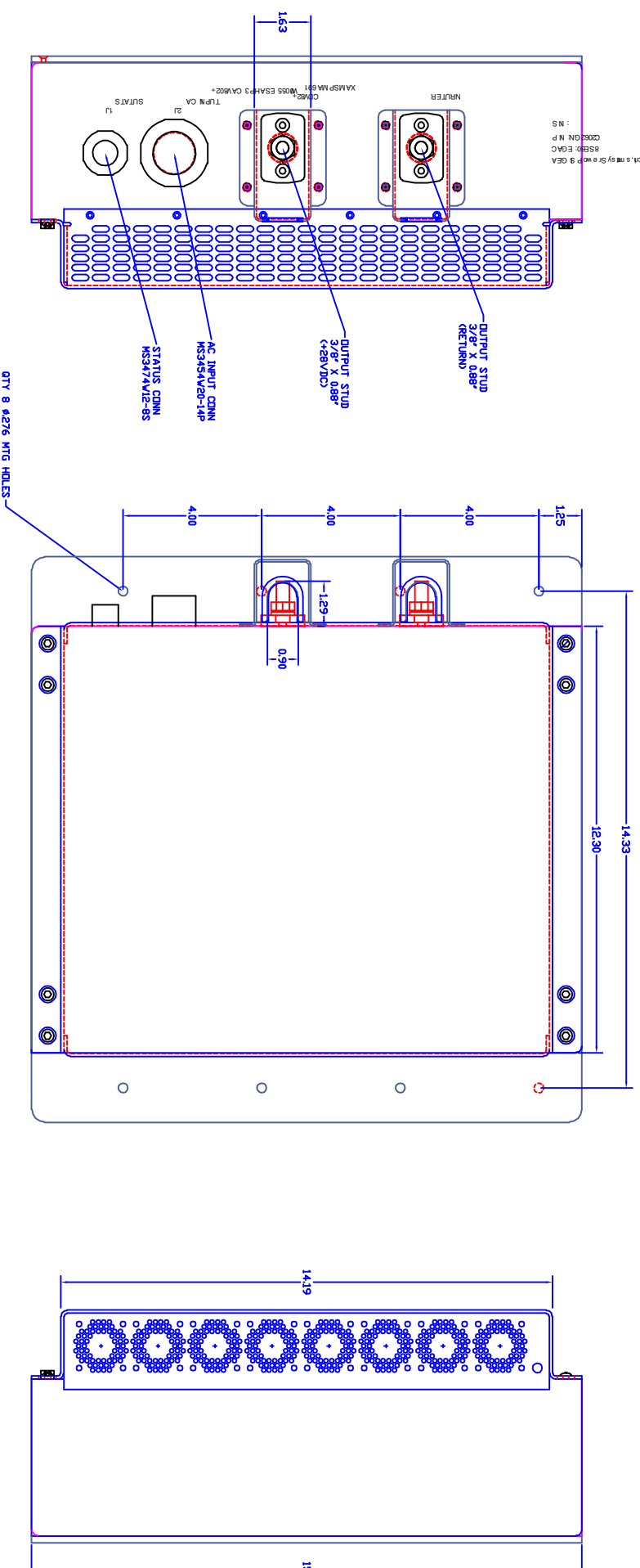


- NOTES: UNLESS OTHERWISE SPECIFIED
1. INTERPRET DIMENSIONS AND TOLERANCES PER ANSI Y14.5M-1994.
  2. MATERIAL: ALUMINUM ALLOY
  3. FINISH: CHEMICAL AGENT RESISTANT IAW MIL-DTL-53072. COLOR PER P.D.

ZONE	REV	DESCRIPTION	DATE	APPROVED
A01		INITIAL RELEASE	XX/XX/XX	JFS
B01		CORRECTED MOUNTING HOLE LOCATIONS	XX/XX/XX	JFS
B02		CHANGED OUTPUT WIRE COVER, AND		
B03		REMOVED FAN CONNECTOR	04/10/07	JFS
B03		REMOVED FAN CONNECTOR	12/10/07	NBA
B04		NAME CHANGE OF DRAWING TO NG2602C	8/27/18	NVM

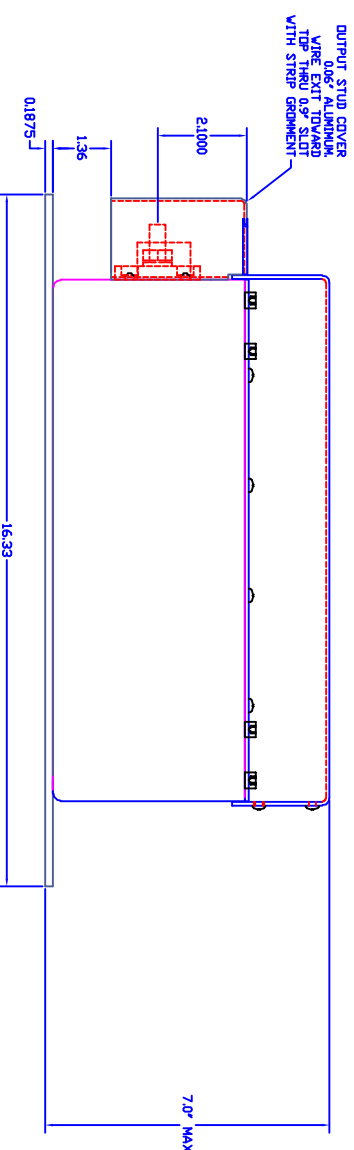
CAD MAINTAINED. CHANGES SHALL BE INCORPORATED BY THE DESIGN ACTIVITY

AIR FLOW



- CONNECTOR J1, STATUS: MS3474V12-8S
- PIN A - AC PHASE A DK
  - PIN B - AC PHASE B DK
  - PIN C - AC PHASE C DK
  - PIN D - DC #1 DK
  - PIN E - DC #2 DK
  - PIN F - DC #3 DK
  - PIN G - 28 VDC LED INPUT POWER

- CONNECTOR J2, AC INPUT: MS3454V20-14P
- PIN A - NEUTRAL
  - PIN B - CHASSIS GROUND
  - PIN C - AC PHASE C INPUT
  - PIN D - AC PHASE A INPUT
  - PIN E - AC PHASE B INPUT



UNLESS OTHERWISE SPECIFIED, DIMENSIONS IN INCHES FRACTIONS DECIMALS DEGREES		CONTRACT NO.	
* N/A	.XX * .02	* .5	
	.XXX * .005	* .5	
MATERIAL	SEE NOTE 2	APPROVALS	DATE
FINISH	SEE NOTE 3	JFS	12/13/06
DO NOT SCALE DRAWING		TITLE	AEGIS P/N: NG2602C
		AEGIS POWER SYSTEMS MURPHY, NORTH CAROLINA	NG2602C MOUNTING INFO
		SIZE F3DM NO.	D 06ES8
		DWG NO.	NG2602C-M01
		SCALE	1/1
		SHEET	1 OF 1