

CTA804

Overview

AC-DC Power Supply
 Three Phase 50/60Hz 208Vac Input (Line-Line)
 +270 Output, 11000W Max
 Water Resistant (Sealed Enclosure)

Market(s)

MIL-COTS, Industrial

Typical Application(s)

Electronic Equipment Rack



Product Highlights

This ruggedized Military Commercial Off the Shelf (COTS) power supply operates from a 3-Phase 208Vac input. The single 11000W output capability is the power supply solution for military COTS applications. It is designed to meet the environmental requirements of MIL-STD-810F and the EMI requirements of MIL-STD-461F. In comparison to other power supplies using conventional technology, this package provides its users with higher efficiency (83% Maximum), less weight and higher power output. This power supply is designed to power military 270Vdc electronic equipment including communication centers.

Features

- 3 Phase 208Vac
- MIL-STD-810F Environmental *
- MIL-STD-461F EMI *
- MIL-STD-1275E +28V Vehicle Power *
- MIL-STD-1472F Safety Markings *
- 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
Vin max range	182 to 216	Vac	Line to Line (Neutral not connected)
Temperature	-40 to +60	°C	-46 to +100 Non-operating
Output Power	11000	W	(+60°C)
Input power	13250	W	(+60°C)
Max +270Vdc output	11000	W	Refer to Table 2 (Output)

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.)

Parameter	Notes
Input Voltage	3 Phase, 208Vac L-L, 50/60 Hz, Nominal. Input range 47 - 63Hz, 182Vac - 216Vac Line-Line.
Input Current	39A per phase (11000W Output)
Input Power	13250W (11000W Output)
Power factor	.97 (Passive Power Factor Correction)
Holdup time	Contact Aegis.
Output power	11000W Maximum
Output voltages	+270Vdc See table 2 for details.
Efficiency	83% Maximum, 81% Minimum.
Output Ripple	See table 2.
Current Limit	Short circuit protected with automatic recovery.
Start-Up Time	1 to 2 second.
Voltage Set Point	265-276Vdc for +270Vdc output (@25C ambient)
Line/Load Regulation	+/- 5%
Temperature regulation	± 0.02% / °C.
Temperature	-40°C to +60°C Operating, -46°C to +100°C Non-operating.
Cooling	Forced Fan Cooling. (Fans come on when needed.)
Package	Enclosed case chassis mounted.
Dimensions	8.44" D x 18" W x 25" H
Weight	115 lbs. maximum.
Connectors	AC Input Connector MIL-DTL-22992 P/N: MS90558C32413P. +270Vdc Output Connector P/N: D38999/24WJ8SN Status Output Connector P/N: MS3474W12-8S.
Environmental	Designed to meet applicable portions of MIL-STD-810F, Ground Mobile.
Humidity	0 – 95% non-condensing.
EMI	Designed to meet applicable portions of MIL-STD-461F Requirement: CE102, CS101, CS114, and RE102. (Ground Range)

Specifications subject to change without notice.

Table 2: Voltage Output (Nominal)

V1	
Voltage	+270Vdc
Current	40.74A
Power	11000W
Ripple	2.80Vpk-pk*

* 20MHz Bandwidth Limited.

Table 3: Connector Specifications

AC Input Connector MIL-DTL-22992 P/N: MS90558C32413P.

Contact Designation	Conductor Circuit
A	Phase A
B	Phase B
C	Phase C
N	Neutral (not connected)
G	Safety Grounding

Status Connector P/N: MS3474W12-8S.

Contact Designation	Conductor Circuit
A	AC OK Collector *
B	DC OK Collector*
C	Over Temp * **
D	Enable Anode
E	Enable Cathode
F	
G	+5V Standby
H	Standby Return

*Common emitter internally tied to +5V Standby Return.

**Normally closed thermal switch (Open @ 95°C)

DC Output Connector P/N: D38999/24WJ8SN

Connection	Circuit
A	+270V Return
B	+270V Return
C	Chassis
D	+270V
E	+270V
F	Loop Back (IN)
G	Loop Back (OUT)
H	Chassis

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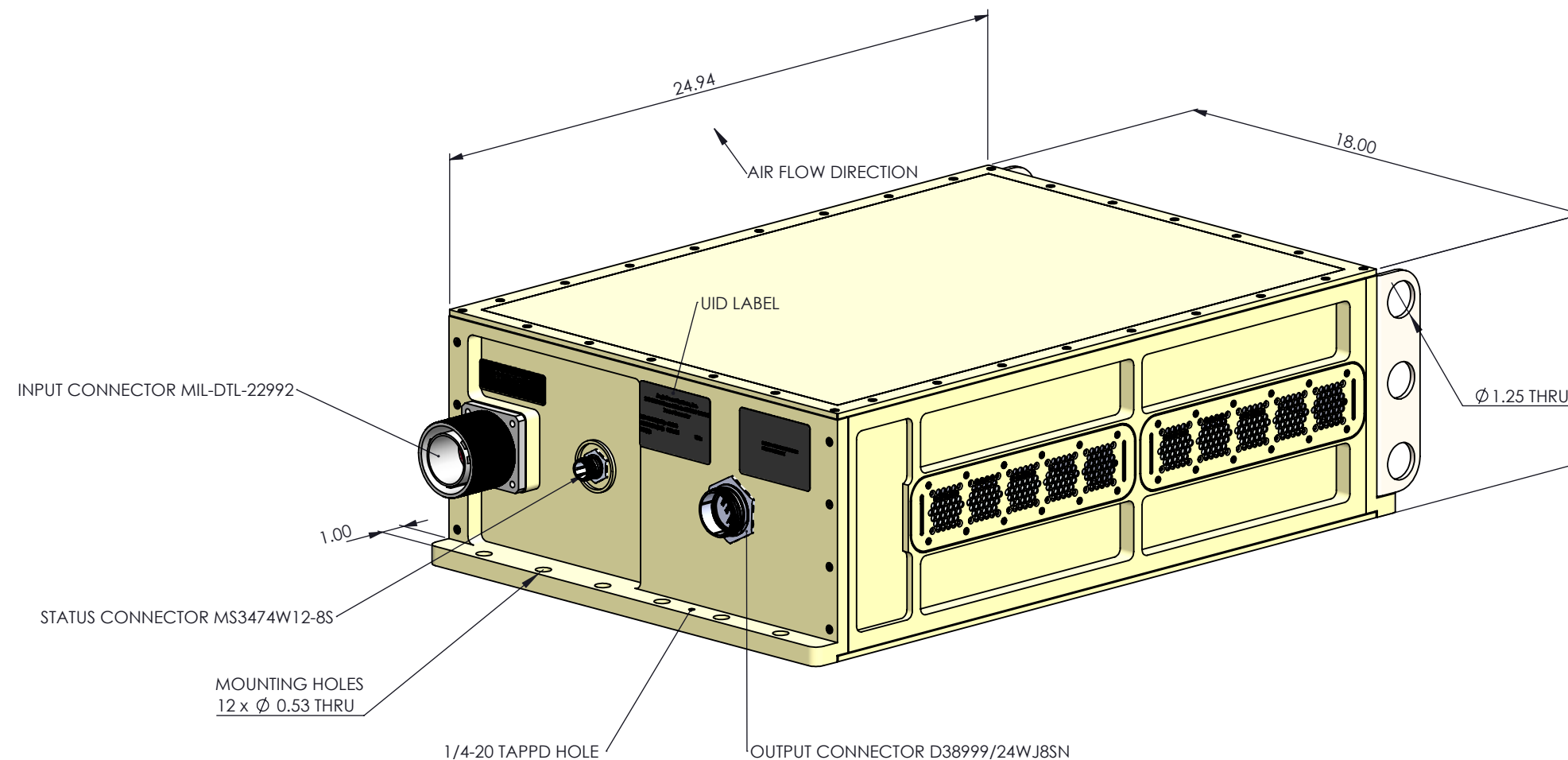
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NOTES: UNLESS OTHERWISE SPECIFIED

- 1. INTERPRET DIMENSIONS AND TOLERANCES PER ANSI Y14.5M-1994.
- 2. MATERIAL:
- 3. FINISH:

DWG NO.		SH	REV	REVISIONS	
ZONE	REV			DATE	APPROVED
	A01			2/23/17	TBL
	B01			4/29/19	TBL
	C01			9/1/2019	TBL
	C02			12/30/20	TBL

CAD MAINTAIN CHANGES SHALL BE INCORPORATED BY THE DESIGN ACTIVITY.



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UNLESS OTHERWISE SPECIFIED:		CONTRACT NO.		AEGIS POWER SYSTEMS MURPHY, NORTH CAROLINA	
DIMENSIONS ARE IN INCHES		APPROVALS	NAME	DATE	TITLE:
TOLERANCES:		DRAWN	TBL	3/20/18	CTA804-M00 ASSY
FRACTIONAL ± N/A		CHECKED	MVM	3/20/18	
DEGREES: ± .5		ENG APPR.	TBL	3/20/18	
TWO PLACE DECIMAL ± .02		MFG APPR.	JM	3/20/18	
THREE PLACE DECIMAL ± .005		Q.A.	MH	3/20/18	
MATERIAL		COMMENTS:		SIZE	FSCM NO.
FINISH		GENERATED BY: SOLID WORKS		B	06ES8
NEXT ASSY	USED ON			DWG. NO.	REV
APPLICATION		DO NOT SCALE DRAWING			C02
				SCALE 1:5	SHEET 1 OF 1

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