

BW2901

AC-DC Power Supply

(Document Rev A05, 10/03/18)



**Single Phase 47-62 Hz 115 Vac Input
Single Output, 300W or Single Output, 600W Power Supply
With Current Sharing Capability**

Features

- 115 Vac input. Designed to meet portions of MIL-Std-1399 Section 300 A/B.*
- Single Output with two output options.

* Contact AEGIS Power Systems for specific details.

Table 1: Maximum Ratings

Parameter	Rating	Unit	Notes
Vin max range	115	Vac	Typical
Temperature range	-40 to +71	°C	Operating
Output power	375	W	-001 325W -002 300W
Input power	375	W	typical
28Vdc output	325	W	BW2901-001
24Vdc output	300	W	BW2901-002
24Vdc output	600	W	BW2901-003

Product Highlights

This single phase, single output power supply takes 115VAC 377W input and converts it into one of two configurations. Model BW2901-001 outputs 28Vdc at 325W. Model BW2901-002 outputs 300W at 24Vdc. Designed to meet portions of military standard 1399 sections 300 A/B.

Also available in 2018 is a single output power supply takes 115VAC 723W input and converts it into a single output of +24Vdc at 600W. Model BW2901-003 outputs 600W at 24Vdc. Designed to meet portions of military standard 1399 sections 300 A/B.

AEGIS Power Systems, Inc. specializes in the front end design, development, and manufacture of Rapid Response Custom Switching Power Supplies for defense, industry, telecom, aircraft, shipboard, rack mount, electric powered vehicle, and Mil-Cots military power supply applications. Contact Aegis for specific details on what can be designed for your particular military power supply application and what portions of a particular military standard can be offered for that power supply.

SPECIFICATIONS

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

Input voltage:	Mil-Std-1399 Section 300A/B Type I 115Vac 60Hz
Input current:	3.3A typical @ 115Vac 6.3A for -003)
Input power:	375W @ 115 typical (723W for -003)
Power factor:	0.99 typical 47Hz - 63Hz.
Output power:	-001 is 325W, -002 is 300W, -003 is 600W
Current Share:	Two or more units can be configured to current share with as much as 2400Watts capability.
Holdup time:	2mSec.
Output voltages:	See table 2 for details.
Efficiency:	83% Typical
Current Limit:	Short circuit protected with automatic recovery.
Start up time:	500 mSec. Maximum.
Voltage set point:	± 2.5%. (any combination)
Line regulation:	± 2.5%.
Load regulation:	± 2.5%.
Temperature:	-40°C to +71°C Operating. -40°C to +85°C Non-Operating.
Dimensions:	9.5" x 9.5" x 2.32" (see mechanical drawing).
Connector:	circular (see mechanical drawing)
Vibration:	Designed to meet MIL-STD-167
Shock:	Designed to meet MIL-STD-901D.
Noise:	Designed to meet Mil-STD-740
Humidity:	0 – 95% non-condensing.
EMI:	Designed to meet MIL-STD-461C CE01. CE03, CS01

Specifications subject to change without notice.

Table 2: Voltage Outputs

Part Number	Vdc out	Watts out	Amps Out	Ripple (20MHz BW)
BW2901-001	+28	325	11.6	300mVpk-pk
BW2902-002	+24	300	12.5	300mVpk-pk
BW2902-003	+24	600	25	300mVpk-pk

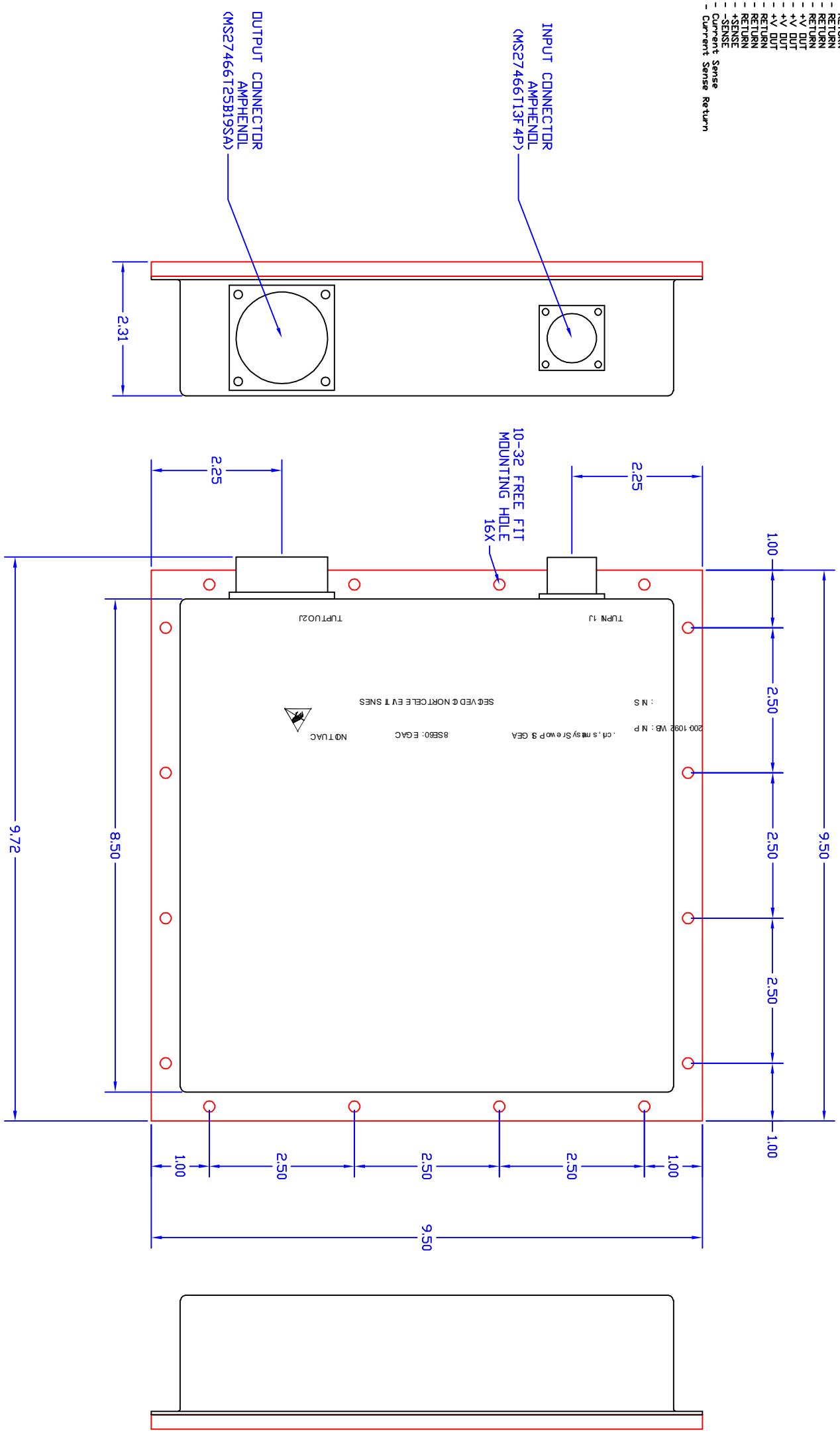
NOTES: UNLESS OTHERWISE SPECIFIED

1. INTERPRET DIMENSIONS AND TOLERANCES PER ANSI Y14.5M-1994.
2. MATERIAL: ALUMINUM ALLOY
3. FINISH: CHEMICAL FILM PER MIL-DTL-5541F, CLASS 3, TYPE II, COLOR CLEAR

4. INPUT CONNECTOR
A-LINE
B-NEUTRAL
C-CHASSIS GND
D-OPEN
5. OUTPUT CONNECTOR
A - +V OUT
B - +V OUT
C - +V OUT
D - +V OUT
E - RETURN
F - RETURN
G - RETURN
H - RETURN
J - +V OUT
K - +V OUT
L - +V OUT
M - +V OUT
N - RETURN
P - RETURN
R - RETURN
S - +SENSE
T - SENSE
U - Current Sense
V - Current Sense Return

CAD MAINTAINED. CHANGES SHALL BE INCORPORATED BY THE DESIGN ACTIVITY

ZONE	REV	DESCRIPTION	DATE	APPROVED
A01		INITIAL RELEASE	XXXXX	XXX
A02		OUTPUT CONNECTOR PIN OUT	11/29/11	NVM
A03		MATERIAL AND FINISH	1/4/12	NVM
A04		CONN. FROM NUMBER TO LETTER	2/1/12	NVM



AEGIS POWER SYSTEMS, INC. PROPRIETARY INFORMATION. NO DISCLOSURE, REPRODUCTION, OR USE OF ANY PART HEREOF MAY BE MADE EXCEPT BY EXPRESS WRITTEN PERMISSION OF AEGIS POWER SYSTEMS, INC.

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES FRACTIONS DECIMALS ANGLES DEGREES		CONTRACT NO.	
* N/A	XX * .02	* N/A	
	.XXX * .005	* 5	
MATERIAL SEE NOTE 2		APPROVALS	
FINISH SEE NOTE 3		DESIGNER	DATE
DO NOT SCALE DRAWING		CHECKED	10/28/09
		FRBL ENR	
		WFG	
		QUALITY	
		TITLE	
		AEGIS POWER SYSTEMS	
		MURPHY, NORTH CAROLINA	
		SINLE PHASE PFC 650W 24V	
		MECHANICAL LAYOUT	
		AEGIS P/N: BW2901-002	
SIZE	F3DM NO.	DWG NO.	REV
D	06ES8	BW2901-002-M00	A04
SCALE	1/1	SHEET	1 OF 1

A B C D

A B C D