

## BW2901

### AC-DC Power Supply

(Document Rev A03, 09/01/2015)



### Single Phase 47-62 Hz 115 Vac Input Single Output, 300W Power Supply

#### 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

#### 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.

**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.)**

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

Specifications subject to change without notice.

**Table 2: Voltage Outputs**

<b>Part Number</b>	<b>Vdc out</b>	<b>Watts out</b>	<b>Amps Out</b>	<b>Ripple (20MHz BW)</b>
BW2901-001	+28	325	11.6	300mVpk-pk
BW2902-002	+24	300	12.5	300mVpk-pk

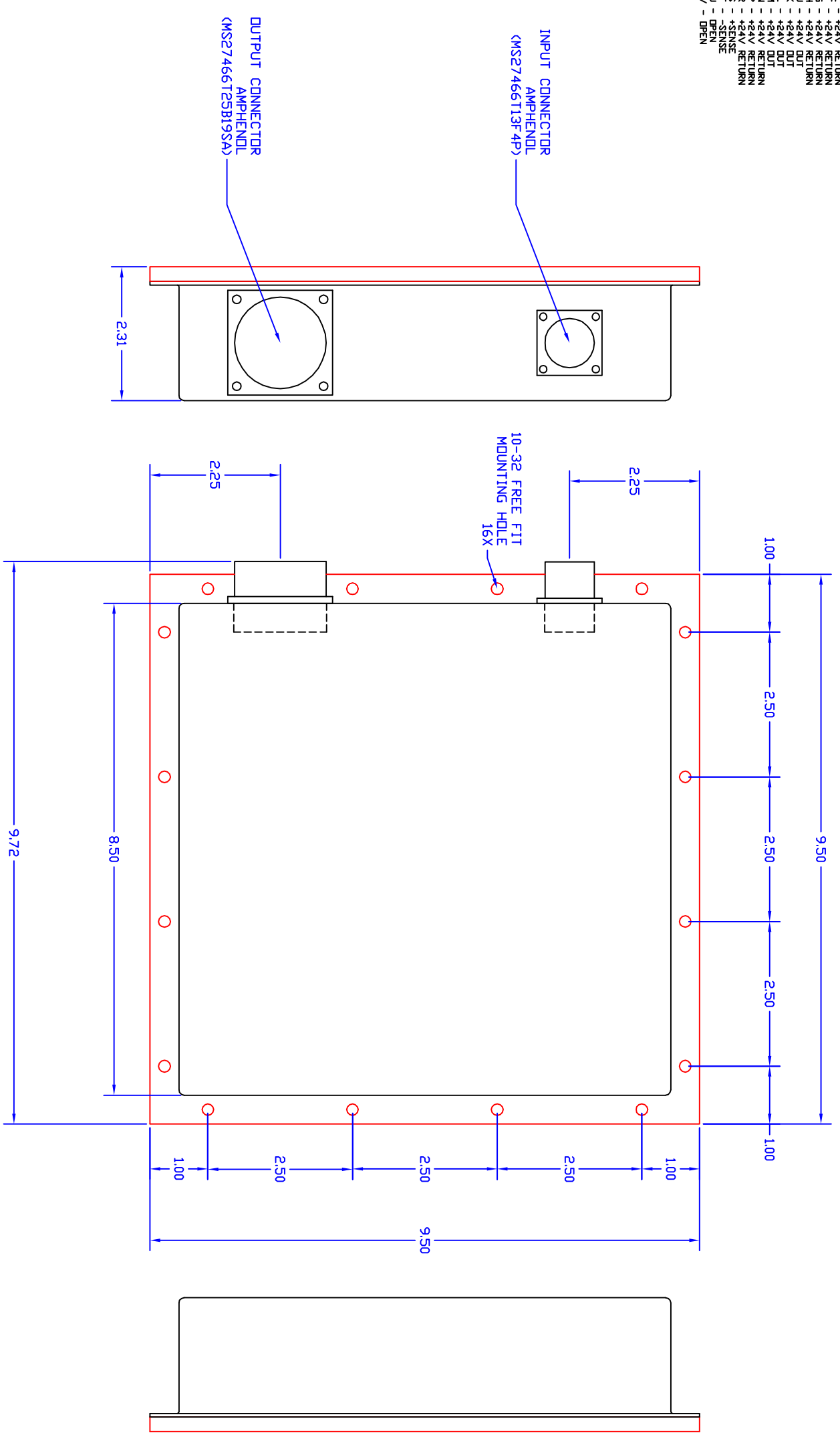
NOTES:

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

- 5. INPUT CONNECTOR
- 6. OUTPUT CONNECTOR

A -LINE  
 B-NEUTRAL  
 C-CHASSIS GND  
 D-OPEN

A - +24V OUT  
 B - +24V OUT  
 C - +24V OUT  
 D - +24V OUT  
 E - +24V RETURN  
 F - +24V RETURN  
 G - +24V RETURN  
 H - +24V RETURN  
 J - +24V OUT  
 K - +24V OUT  
 L - +24V OUT  
 M - +24V OUT  
 N - +24V RETURN  
 P - +24V RETURN  
 R - +24V RETURN  
 S - +SENSE  
 T - -SENSE  
 U - OPEN  
 V - OPEN



CAD MAINTAINED. CHANGES SHALL BE INCORPORATED BY THE DESIGN ACTIVITY

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

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UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES. FRACTIONS: DECIMALS AND DECIMALS: XXX ± .02 ± .5

APPROVALS	DATE	TITLE
DESIGNED	10/28/09	SINGLE PHASE PFC 650W MECHANICAL LAYOUT
CHECKED		AEGIS P/N: BW2901
PROJ. ENG.		
APP. QUALITY		
FINISH	SEE NOTE 3	
MATERIAL	SEE NOTE 2	
CONTRACT NO.		
APPLICATION	USED IN	
NEXT ASSY		
SIZE	FSC#	DWG#
D	06ES8	BW2901-M00
SCALE	1/1	SHEET 1 OF 1