

BW2901

AC-DC Power Supply

(Document Rev A06, 11/28/18)



**Single Phase 47-62 Hz 115 Vac Input
300W, 325W, or 600W Power Supply**

With Current Sharing Capability

Features

- 115 Vac input. Designed to meet applicable portions of MIL-Std-1399 Section 300 A/B.*
- Single Output with three 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
Input power	360 - 722	W	(Depending on output option)
28Vdc output	325	W	BW2901-001
24Vdc output	300	W	BW2901-002
24Vdc output	600	W	BW2901-003

Product Highlights

This single-phase power supply takes 115VAC input and converts it into an isolated and regulated DC output. Three output options available: Model BW2901-001 outputs 28Vdc at 325W, Model BW2901-002 outputs 24Vdc 300W, Model BW2901-003 outputs 24Vdc 600W. Designed to meet applicable 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:	3.13A – 6.27A @ 115Vac typical
Input power:	360W – 722W @ 115 typical
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
BW2901-002	+24	300	12.5	300mVpk-pk
BW2901-003	+24	600	25	300mVpk-pk

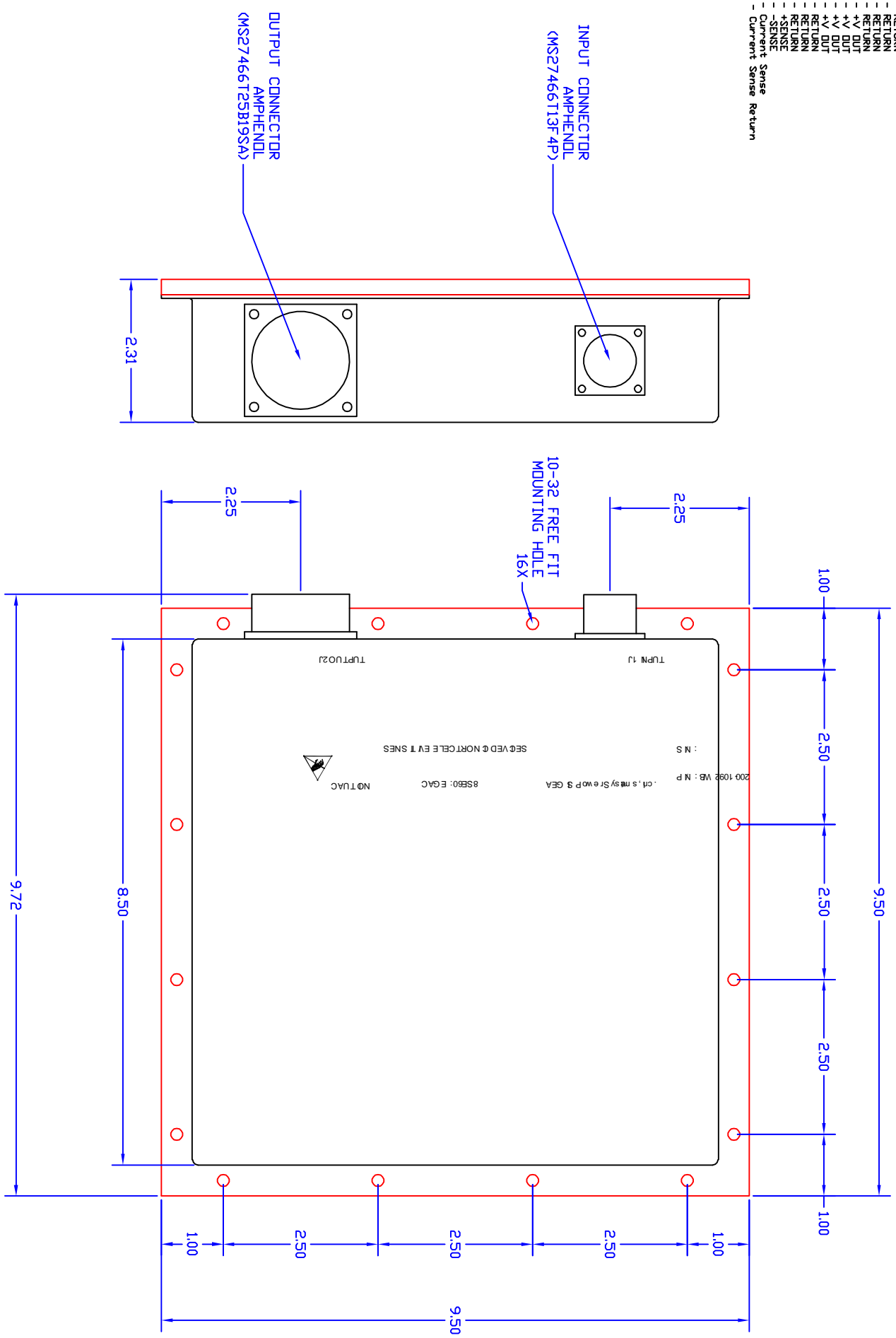
NOTES: UNLESS OTHERWISE SPECIFIED

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-HEUTRAL
C-CHASSIS GND
D-OPEN
5. OUTPUT CONNECTOR
A - +V OUT
B - +V DUT
C - +V OUT
D - +V DUT
E - RETURN
F - RETURN
G - RETURN
H - RETURN
J - +V DUT
K - +V DUT
L - +V DUT
M - +V DUT
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



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UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES FRACTIONS DECIMALS ANGLES DEGREES
* N/A .XX * .02 * 5
XXX * .005

CONTRACT NO.	APPROVALS	DATE	TITLE
	MVM	10/28/09	SINLE PHASE PFC 650W 24V MECHANICAL LAYOUT
			AEGIS P/N: BW2901-002

DESIGNER	CHECKED	APP. ENG.	DATE	SCALE	SHEET	TOTAL
D	06ES8			1/1	1	1

SIZE	F3DM NO.	DWG. NO.	REV.
D	06ES8	BW2901-002-M00	A04

A B C D

A B C D

8 7 6 5 4 3 2 1