



"The best high voltage design solution"

# SP7284, 10W, 24V, 6250V SPECIFICATION SHEET

## Customer Approval

Name \_\_\_\_\_

Signature \_\_\_\_\_

Date (MM/DD/YYYY) \_\_\_\_\_

*Customer Signature Required*

**Standard Model Number : SP7284**

**RoHs Model Number : SP7284/Y**

## ELECTRICAL SPECIFICATIONS

*Standard Model is NOT RoHs Compliant*

Input Voltage ..... 24Vdc	Output Ripple ..... < 0.25% P-P
No Load Input Current ..... <230 mA	Input Filter ..... LC Network
Full Load Input Current ..... <900mA	Efficiency ..... > 70%
Output Voltage ..... +6250Vdc	Short Circuit Protection ..... Continuous
Output Current ..... 1.6 mA	Switching Frequency ..... 80 kHz
Voltage Accuracy ..... +/- 4%	Output Isolation ..... 500 Vdc
Line Regulation ..... Proportional	Input / Output Capacitance ..... < 30pF
Load Regulation ..... +/- 20%	Arc Fault Detention ..... Active Low (Open Collector)

*Max Rating 36Vdc / 16mA Sink Current*

## GENERAL SPECIFICATIONS

Temp. Stability ..... +/- 0.05%/°C	Derating ..... None
Temp. (Operating , Case) ..... -20 to +85°C	Cooling ..... Free-Air Convection
Temp. (Storage) ..... -55 to +100°C	
Humidity ..... 0 to 95% (Non-Condensing)	

## PHYSICAL SPECIFICATIONS

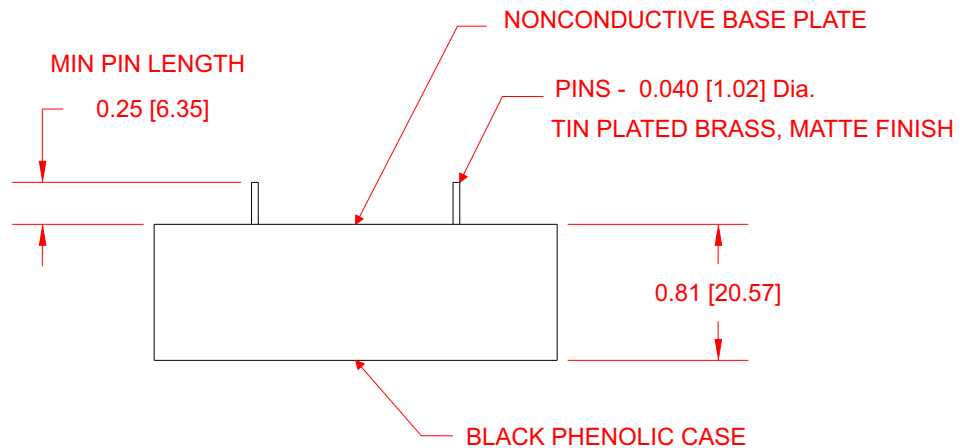
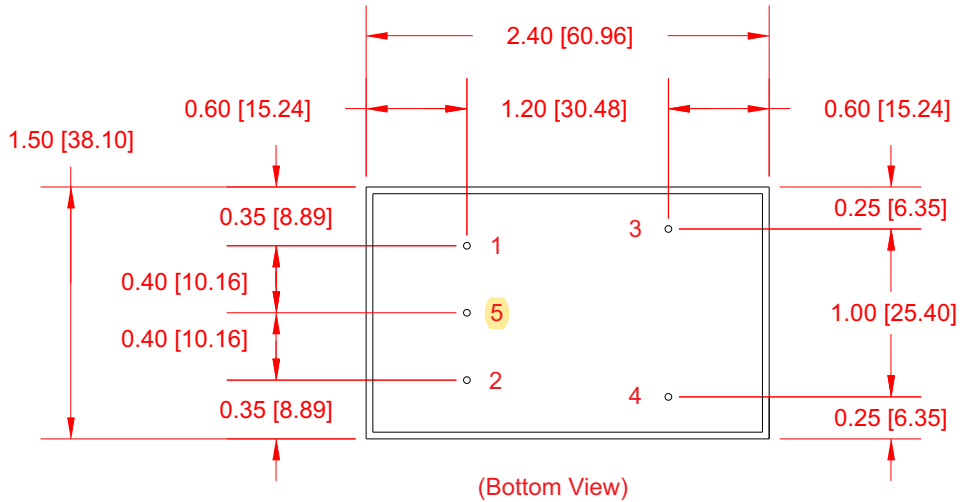
Dimensions ..... 1.5 x 2.4 x 0.81 inches	Encapsulation Material ..... UL 94V-0 Epoxy
Weight ..... 3.4 Oz	Case Material ..... Black Phenolic





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PIN #	FUNCTION
1	+ Input
2	- Input
3	- Output
4	+ Output
5	Arc Fault Detection

*Dimensions are in Inches  
[Metric equivalents in brackets]*



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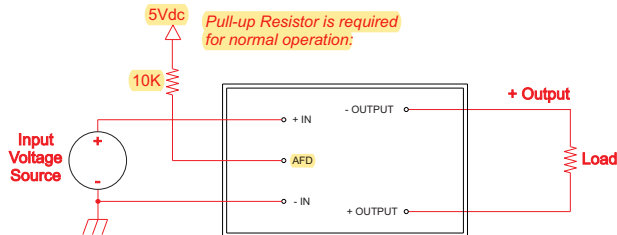
## APPLICATION NOTES

### ARCH FAULT DETECTION

The SP7284 is equipped with an Arc Detection Circuit that will become active when any arc is detected that exceeds the rated output current for greater than 10mS and resets after the event has passed.

In the event of a short circuit fault the Arc Detection Circuit will remain active until the fault is removed.

The figure below shows typical connections needed.



**NOTE:**

Arc Detection Pin must not be allowed to exceed 36Vdc or sink more than 16mA otherwise permanent damage to the converter may occur.

### CLEANING AGENTS

In order to avoid possible damage, any penetration of cleaning fluids must be prevented, since the power supplies are not hermetically sealed.

### NUCLEAR AND MEDICAL APPLICATIONS

American Power Design products are not designed, intended for use in, or authorized for use as critical components in life support systems, equipment used in hazardous environments, or nuclear control systems without the express written consent of American Power Design, Inc.

### SAFETY REQUIREMENTS

The converters are designed to meet North American and International safety regulatory requirements per UL 60950-1/CSA 22.2 No. 60950-1-07 Second Edition, IEC 60950-1:2005, and EN 60950-1:2006. Basic Insulation is provided between input and output. To comply with safety agencies requirements, an input line fuse (2A SB) must be used external to the converter.

If one input fuse is used for a group of modules, the maximum fuse rating should not exceed 20A.

### WARRANTY

All products manufactured by American Power Design, Inc. (APD) are warranted to be free of defects due to material or workmanship for a period of one year from date of shipment. At our option, APD will repair or replace any non-conforming product.

APD expressly disclaims any liability for consequential or incidental damages resulting from the use or misuse of its products by the purchaser or others.

This warranty is in lieu of all warranties expressed or implied, including the warranties of merchantability. No other warranties, obligations, or liabilities are expressed or implied.

All products being returned for repair require a return material authorization(RMA) assigned by APD prior to return shipment.