

### ALS50-3.3

#### Description:

The ALS50-3.3 is a single output power supply. It provides a DC output power in a cost-effective open frame package. Excellent performance specifications are provided, together with compliance to European EMC (EN55022, Class A), and Low Voltage directive (TUV EN60950).

#### Specifications (@25C)

##### Input Characteristics:

<b>Input Voltage (5):</b>	110/220Vac (90-260Vac, 120-370Vdc)
<b>Input Frequency Range (1):</b>	47-63Hz
<b>Max Input Current:</b>	1.0A @ 110Vac; 0.5A @ 220Vac
<b>Max Inrush Current:</b>	30A @ 220Vac
<b>Hold-Up Time:</b>	17ms typ @ 110Vac, 100% Load

##### Output Characteristics:

<b>Output Voltage:</b>	3.3Vdc
<b>Output Current (1,6):</b>	9.1A
<b>Output Power (1):</b>	30W
<b>Ripple &amp; Noise (20 MHz BW):</b>	50mV
<b>Line Regulation (4):</b>	1.0%
<b>Load Regulation (3):</b>	2.0%
<b>Temperature Drift:</b>	0.02%/°C
<b>Rise-up Time:</b>	500ms max, 110Vac, 100% Load
<b>Over Current Protection:</b>	Shutdown, O.C.P Point>120%, recycle AC supply to recover
<b>Over Voltage Protection:</b>	>105% Zener across output
<b>Short Circuit Protection:</b>	Unit shutdown, recycle AC supply to recover
<b>Adj. O/P Voltage Range (1,2):</b>	±10%

##### Environmental Specifications:

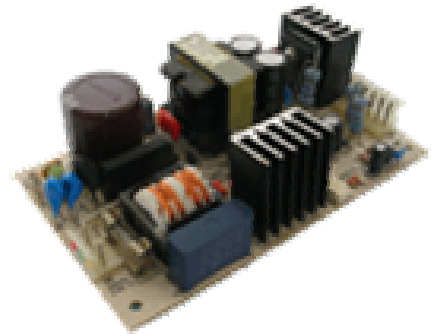
<b>EMI (Conducted RFI):</b>	Built to comply with EN55022-B
<b>EFT:</b>	Built to comply with IEC61000-4-4
<b>ESD:</b>	Built to comply with IEC61000-4-2
<b>Surge:</b>	Built to comply with IEC61000-4-5
<b>Operating Temperature:</b>	Convection cooling 0 to 50°C:100%; 60°C:70%
<b>Operating Humidity:</b>	30% to 90% RH
<b>Storage Temperature:</b>	-25 to 85°C
<b>Storage Humidity:</b>	10% to 95% RH
<b>Cooling:</b>	Convection cooling
<b>Vibration:</b>	1min sweep 10-55Hz, 2G Amplitude, X,Y,Z axis 1hr each
<b>Shock:</b>	<20G

##### General Specifications:

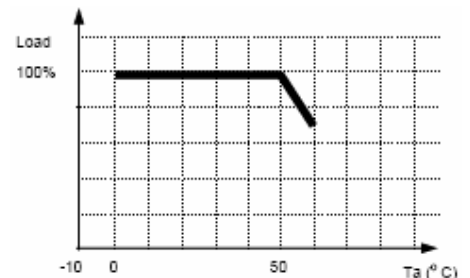
<b>Efficiency:</b>	70% Typical
<b>Dimensions (WxLxH):</b>	76.20x127x35.56mm
<b>Weight:</b>	300g
<b>Warranty:</b>	2 years @ 40°C, 100% Load

##### Safety Standards:

<b>Standard:</b>	UL1950 (E204980) TUV EN60950 (50070245) Built to meet CSA 22.2
<b>Dielectric Strength:</b>	I/P-O/P:3kVac, I/P-FG:2.5kVac, <10mA, 1min
<b>Insulation Resistance:</b>	O/P-FG: 500VDC>100Mohms



DERATING CURVE



Web: [www.TriadMagnetics.com](http://www.TriadMagnetics.com)  
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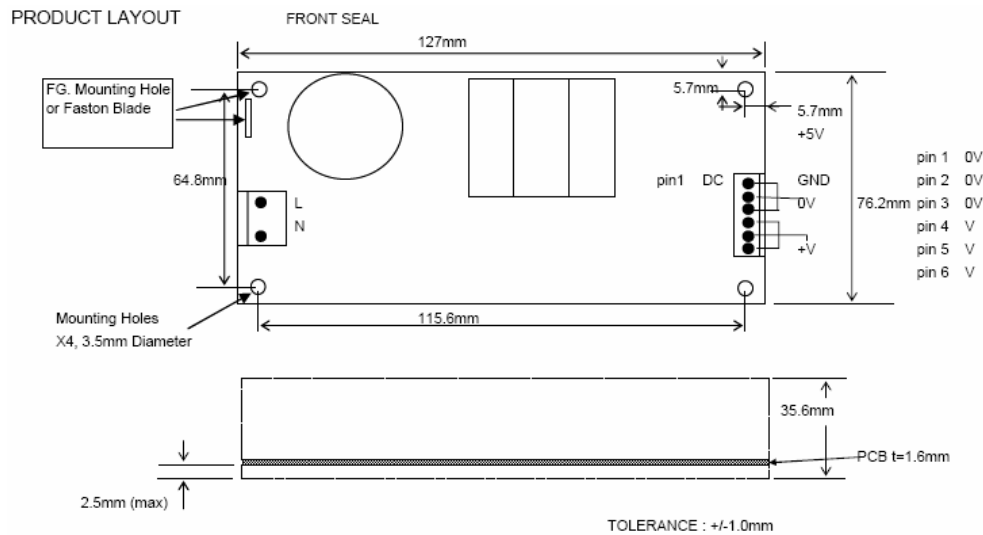
22520B Temescal Canyon Road Corona,  
California  
92883

Release Date: February 22, 2006  
Revision: B

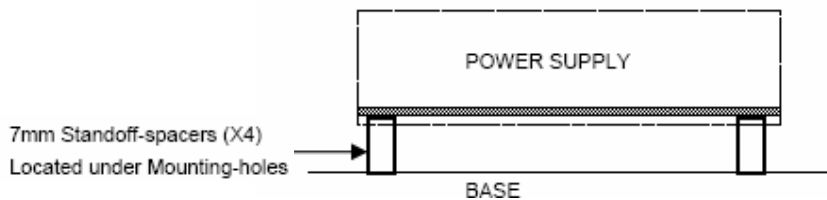
### Technical Notes:

1. Throughout  $V_{in}$  range.  $V_{out}$  must be measured as near as possible to power supply.
2. Total output power by any combination of channel must not exceed  $P_{ou(m)}$ .
3.  $V_{out}$  deviation as  $I_{out}$  varies from  $I_{o(min)}$ - $I_{o(max)}$ .
4.  $V_{out}$  deviation as  $V_{in}$  varies from 90 – 260Vac.
5. Where UL and CSA is concerned, official rated input voltage range is 100-120Vac/200-240Vac.
6. Current derated to avoid issues with heat dissipation due to large load current at such low voltage.

### Outline Dimensions (mm):



### Mounting Method:



### Connector Types:

**AC Housing:** Molex 09-50-3031  
**DC Housing:** Molex 09-50-3061

**Crimp Terminals:** Molex 08-50-0105  
**Crimp Terminals:** Molex 08-50-0105

**RoHS Compliance:** This power supply meets the requirements of 2002/95/EC, known as the RoHS initiative.

\* Upon printing, this document is considered "uncontrolled". Please contact Triad Magnetics' website for the most current version.

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