

# **Switch Mode Power Supplies Single Output** AC/DC Power Supply

# **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).

### Specifications (@25C)

### Input Characteristics:

Input Voltage (5): 110/220Vac (90-260Vac, 120-370Vdc)

Input Frequency Range (1): 47-63Hz

Max Input Current: 1.0A @ 110Vac; 0.5A @ 220Vac

Max Inrush Current: 30A @ 220VAc

Hold-Up Time: 17ms typ @ 110Vac, 100% Load

### **Output Characteristics:**

**Output Voltage:** 3.3Vdc Output Current (1,6): 9.1A Output Power (1): 30W Ripple & Noise (20 MHz BW): 50mV Line Regulation (4): 1.0% Load Regulation (3): 2.0% 0.02%/°C **Temperature Drift:** 

Rise-up Time: 500ms max, 110Vac, 100% Load

Shutdown, O.C.P Point>120%, recycle AC supply to recover **Over Current Protection:** 

**Over Voltage Protection:** >105% Zener across output

**Short Circuit Protection:** Unit shutdown, recycle AC supply to recover

Adj. O/P Voltage Range (1,2):

## **Environmental Specifications:**

EMI (Conducted RFI): Built to comply with EN55022-B EFT: Built to comply with IEC61000-4-4 ESD: Built to comply with IEC61000-4-2 Built to comply with IEC61000-4-5 Surge:

**Operating Temperature:** Convection cooling 0 to 50°C:100%; 60°C:70%

Operating Humidity: 30% to 90% RH -25 to 85°C Storage Temperature: Storage Humidity: 10% to 95% RH Cooling: Convection cooling

Vibration: 1min sweep 10-55Hz, 2G Amplitude, X,Y,Z axis 1hr each

Shock: <20G

## General Specifications:

Efficiency: 70% Typical Dimensions (WxLxH): 76.20x127x35.56mm

Weight:

2 years @ 40°C, 100% Load Warranty:

### **Safety Standards:**

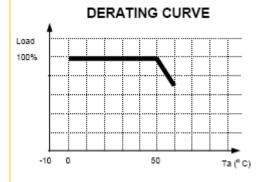
Standards: UL60950-1 (E204980) Built to meet CSA 22.2

I/P-O/P:3kVac, I/P-FG:2.5kVac, <10mA, 1min Dielectric Strength:

Insulation Resistance: O/P-FG: 500VDC>100Mohms







Web: www.TriadMagnetics.com Phone 951-277-0757 Fax 951-277-2757

460 Harley Knox Blvd. Perris, California 92571

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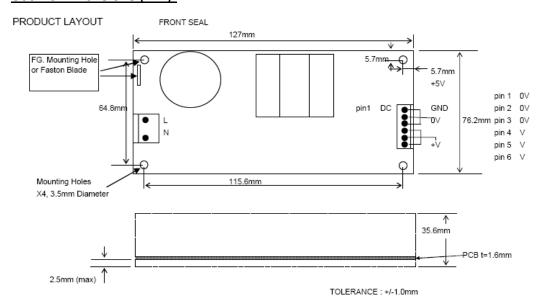


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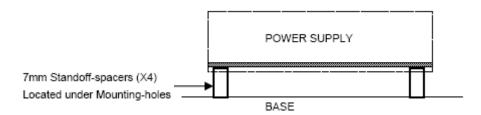
#### **Technical Notes:**

- 1. Throughout Vin range. Vout must be measured as near as possible to power supply.
- 2. Total output power by any combination of channel must not exceed Pou(m).
- 3. Vout deviation as lout varies from lo(min)-lo(max).
- 4. Vout deviation as Vin varies from 90 260 Vac.
- 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
 Crimp Terminals: Molex 08-50-0105

 DC Housing: Molex 09-50-3061
 Crimp Terminals: Molex 08-50-0105

**RoHS Compliance:** As of manufacturing date February 2016, all standard products meet the requirements of 2015/863/EU, known as the RoHS 3 initiative.

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

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