

## ALS50-24

### Description:

The ALS50-24 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 (@25°C)

#### 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:	24.0Vdc
Output Current (1):	2.1A
Output Power (1):	50W
Ripple & Noise (20 MHz BW):	240mV
Line Regulation (4):	1.0%
Load Regulation (3):	2.0%
Temperature Drift:	0.02%/°C
Rise-up Time:	500ms max, 110Vac, 100% Load
Over Current Protection:	Shutdown, O.C.P Point>120%, recycle AC supply to recover
Over Voltage Protection:	>105% Zener across output
Short Circuit Protection:	Unit shutdown, recycle AC supply to recover
Adj. O/P Voltage Range (1,2):	±10%

#### Environmental Specifications:

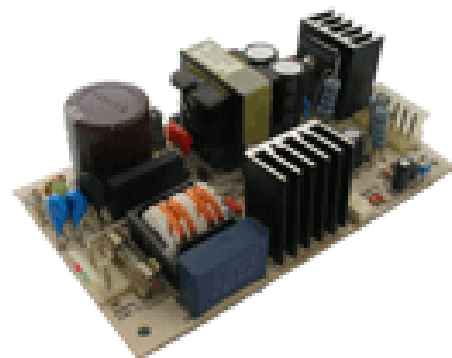
EMI (Conducted RFI):	Built to comply with EN55022-B
EFT:	Built to comply with IEC61000-4-4
ESD:	Built to comply with IEC61000-4-2
Surge:	Built to comply with IEC61000-4-5
Operating Temperature:	Convection cooling 0 to 50°C:100%; 60°C:70%
Operating Humidity:	30% to 90% RH
Storage Temperature:	-25 to 85°C
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:

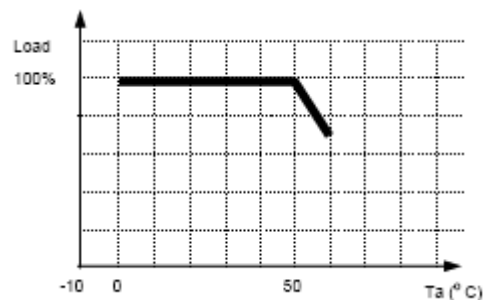
Efficiency:	70% Typical
Dimensions (WxLxH):	76.20x127x35.56mm
Weight:	300g
Warranty:	2 years @ 40°C, 100% Load

#### Safety Standards:

Standard:	UL60950-1 (E204980) Built to meet CSA 22.2
Dielectric Strength:	I/P-O/P:3kVac, I/P-FG:2.5kVac, <10mA, 1min
Insulation Resistance:	O/P-FG: 500VDC>100Mohms



DERATING CURVE



# Switch Mode Power Supplies

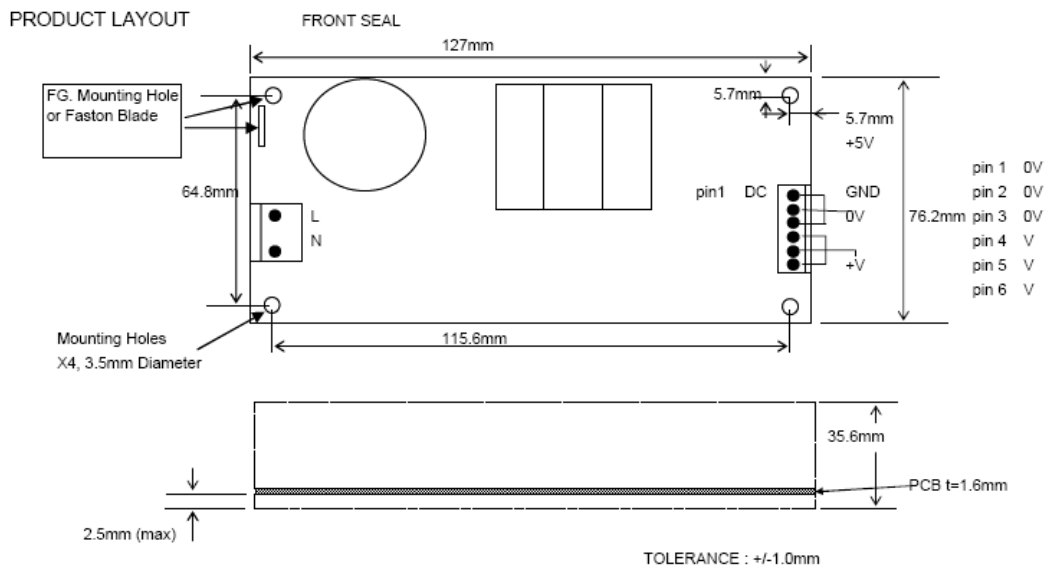
## Single Output

### AC/DC Power Supply

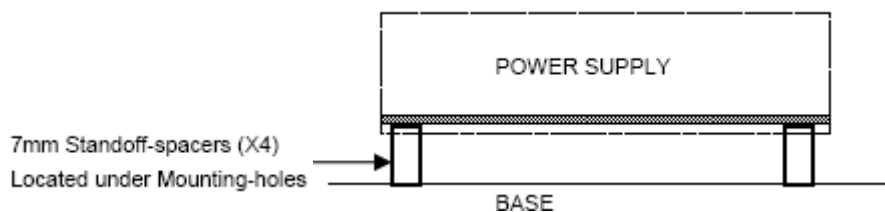
### Technical Notes:

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 Iout varies from Io(min)-Io(max).
4. Vout deviation as Vin varies from 90 – 260Vac.
5. Where UL and CSA is concerned, official rated input voltage range is 100-120Vac/200-240Vac.

**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

**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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