ALS50-5

Description:
The ALS50-5 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: 5.0Vdc
- Output Current (1,6): 9.0A
- Output Power (1): 45.0W
- Ripple & Noise (20 MHz BW): 75mV
- 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 Z22.2
- Dielectric Strength: I/P-O/P:3kVac, I/P-FG:2.5kVac, <10mA, 1min
- Insulation Resistance: O/P-FG: 500VDC>100Mohms

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**DERATING CURVE**

- Load
- Ta (°C)

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

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