

# Switch Mode Power Supplies Single Output AC/DC Power Supply with PFC

## AWSP150-12

#### Description:

The AWSP150-12 is a single output power supply. This power supply is designed for a wide variety applications where high reliability is desired, including applications for the industrial and telecommunications markets. Excellent performance specifications are provided, together with compliance to European EMC (EN55022, Class B and EN61000-3-2), and Low Voltage directive (TUV EN60950).

## Specifications (@25C)

### **Input Characteristics:**

Input Voltage: 88-264Vac
Input Frequency Range: 47-63Hz
Max Input Current: 2.7A @ Vin (rated)

Max Inrush Current: 20A@110Vac, 40A@220Vac at cold start

Power Factor: >0.92

Leakage Current: <3.5mA/240Vac

#### **Output Characteristics:**

Output Voltage: 12Vdc Output Current: 12.5A Output Power: 150W Adjustable Output Range: ±10% Ripple & Noise: 180mV Load Regulation: ±0.5% Line Regulation: ±0.5% Efficiency: 80%

 Temperature Drift:
 <0.03%/°C (10-50°C)</td>

 Start-up Time:
 300ms max @ 230VAc

 Hold-up Time:
 20ms min, 100% Load@230Vac

 Rise-up Time:
 600ms max, 100% Load@230Vac

Over Current Protection: At 105%<Load<150%

Over Voltage Protection: At 125%<Load<145%@I/P:115/230VAC. Reset by recycle AC

ON/OFF

#### **General Specifications:**

**Switching Frequency:** 134kHz (PWM) / 67kHz (PFC)

Dimension (LxWxH): 199x98x42

Weight: 560g net, 610g gross
Cooling: Natural Convection

Isolation Resistance: I/P—O/P, I/P—FG, O/P—FG: 500VDC/100Mohms

**Dielectric Strength:** I/P—O/P: 3KVac; I/P—FG: 2.5KVac; O/P—FG: 0.5KVac 1 min

Warranty: 2 year

## **Environmental Specifications:**

Operating Temperature: -20° to 60°C (see derating curve)
Operating Humidity: 20 to 90% RH, non-condensing
Storage Temperature: -40 to 75°C

-40 to 75°C

Storage Humidity: 10 to 95% RH, non-condensing

Vibration: 10-55Hz, 2G 1min/cycle, period of 60min, each X, Y & Z axis

## EMC & Safety Specifications:

EMC Emissions: Conforms to EN55022,VCCI,CISPR22 Class B (Conducted & Radiated); IEC-61000-4-2, 61000-4-4, 61000-4-5, 61000-4-11

 ESD Susceptibility:
 EN61000-4-2 (15kV/8kV)

 Radiated Susceptibility:
 EN61000-4-3 (3Vm<sup>-1</sup>)

 Fast Burst:
 EN61000-4-4 (2kV)

 Surge:
 EN61000-4-5 (1kV/2kV)

 Safety Approval:
 UL 60950 (UL File No: E2

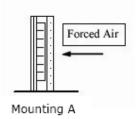
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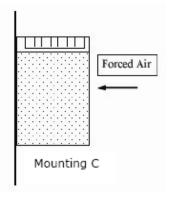
460 Harley Knox Blvd. Perris, California 92571







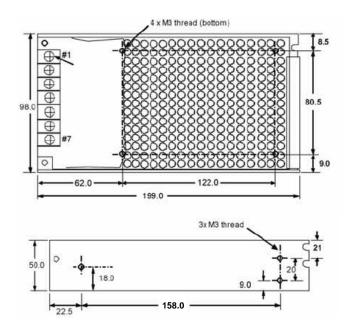
Mounting B





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## **Outline Dimensions (mm):**



#### TERMINAL SCREW ASSIGNMENT

#1,2: AC INPUT

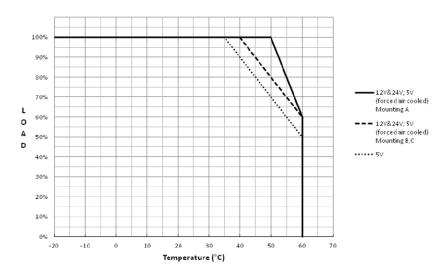
#3 : FG #4,5 : DC OUTPUT -V

# 6,7 : DC OUTPUT +V

Unit: mm

Tolerance: +/-1.0mm

## **Derating Curve:**



## **Connector Types:**

**Input: Screw Terminals Output: Screw Terminals** 

RoHS Compliance: As of manufacturing date February 2005, all standard products meet the requirements of 2011/65/EU, 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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