

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

# **AWSP40-12**

#### **Description:**

The AWSP40-12 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.

#### Specifications (@25C)

#### Input Characteristics:

Input Voltage: 85-264Vac Input Frequency Range: 47-63Hz **Max Input Current:** 1.0A @ Vin (rated)

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

Leakage Current: <3.5mA/240Vac

#### **Output Characteristics:**

Output Voltage: 12Vdc **Output Current:** 3.3A **Output Power:** 40W Adjustable Output Range: ±10% Ripple & Noise: 100mV **Load Regulation:** ±0.5% Line Regulation: ±0.5% Efficiency: 77%

Temperature Drift: <0.03%/°C (10-50°C) Start-up Time: 300ms max @ 230VAc

Hold-up Time: 30ms min, 100% Load@230Vac Rise-up Time: 300ms max, 100% Load@230Vac **Over Current Protection:** At Load>120% 115/230Vac, Auto recovery **Over Voltage Protection:** Zener clamping at Vo>110%, Non auto recovery

**Short Circuit Protection:** Short circuit protection available. Avoid short circuit >30 sec.

**General Specifications:** 

Switching Frequency: 50kHz Dimension (LxWxH): 129x98x38mm Weight: 360g net, 400g gross Cooling: Natural Convection

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

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

Warranty: 2 years

### **Environmental Specifications:**

**Operating Temperature:** -10° to 60°C

20 to 90% RH, non-condensing **Operating Humidity:** 

Storage Temperature: -25 to 75°C

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

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

#### **EMC & Safety Specifications:**

**EMC Emissions:** Conforms to EN55022, VCCI, CISPR22 Class B (Conducted

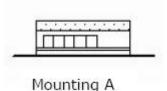
& Radiated); IEC-61000-4-2, 61000-4-4, 61000-4-5,

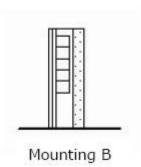
61000-4-11

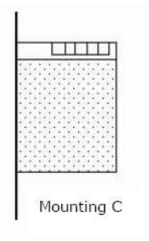
EN61000-4-2 (15kV/8kV) **ESD Susceptibility:** Radiated Susceptibility: EN61000-4-3 (3Vm1) EN61000-4-4 (2kV) **Fast Burst:** EN61000-4-5 (1kV/2kV) Surge: Safety Approval: UL 60950 (UL File No: E204980)







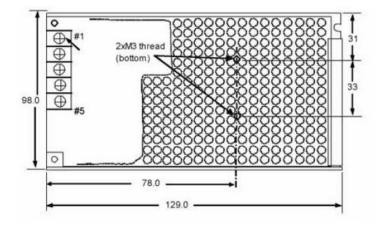






# Switch Mode Power Supplies Single Output AC/DC Power Supply

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



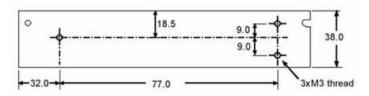
#### TERMINAL SCREW ASSIGNMENT

# 1,2 : AC INPUT

#3 : FG (FRAME GROUND)

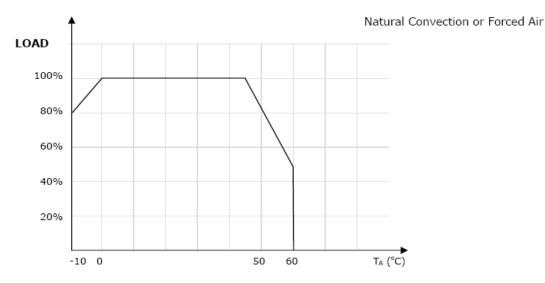
#4 : DC OUTPUT -V

#5 : 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 2016, all standard products meet the requirements of 2015/863/EU, known as the RoHS 3 initiative.

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