

## 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)
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:

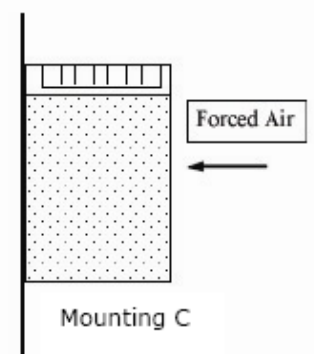
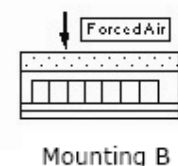
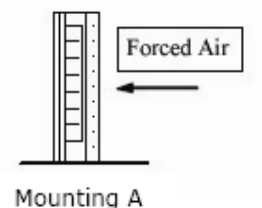
Switching Frequency:	134kHz (PWM) / 67kHz (PFC)
Dimension (LxWxH):	199x98x42
Weight:	560g net, 610g gross
Cooling:	Natural Convection
Isolation Resistance:	I/P—O/P, I/P—FG, O/P—FG: 500VDC/100Mohms
Dielectric Strength:	I/P—O/P: 3kVac; I/P—FG: 2.5kVac; O/P—FG: 0.5kVac 1 min
Warranty:	2 years

#### Environmental Specifications:

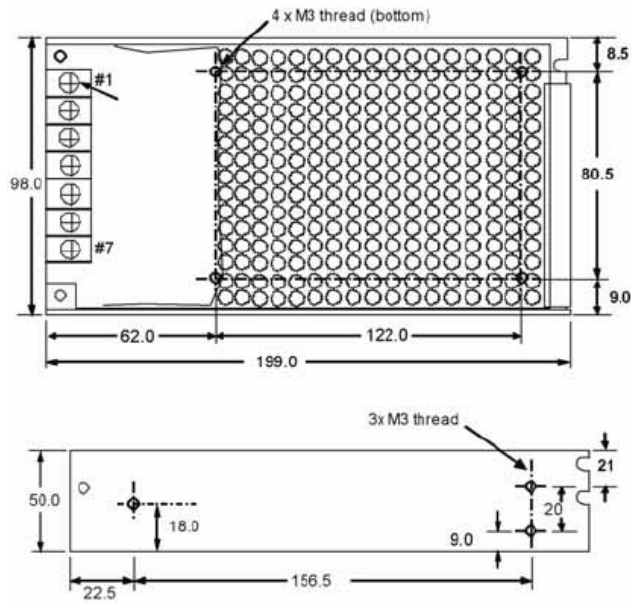
Operating Temperature:	-10° to 60°C
Operating Humidity:	20 to 90% RH, non-condensing
Storage Temperature:	-25 to 75°C
Storage Humidity:	10 to 95% RH, non-condensing
Vibration:	10-55Hz, 2G 1min/cycle, period of 60min, each X, Y & Z axis

#### 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: E204980) TUV EN60950 (TUV No: 50058679)



### Outline Dimensions (mm):

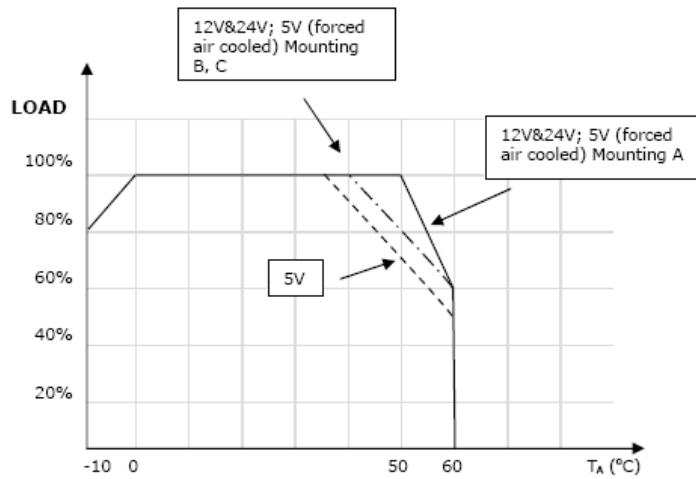


### TERMINAL SCREW ASSIGNMENT

- # 1,2 : AC INPUT
- # 3 : FG
- # 4,5 : DC OUTPUT -V
- # 6,7 : DC OUTPUT +V

Unit : mm  
Tolerance : +/-1.0mm

### Derating Curve:



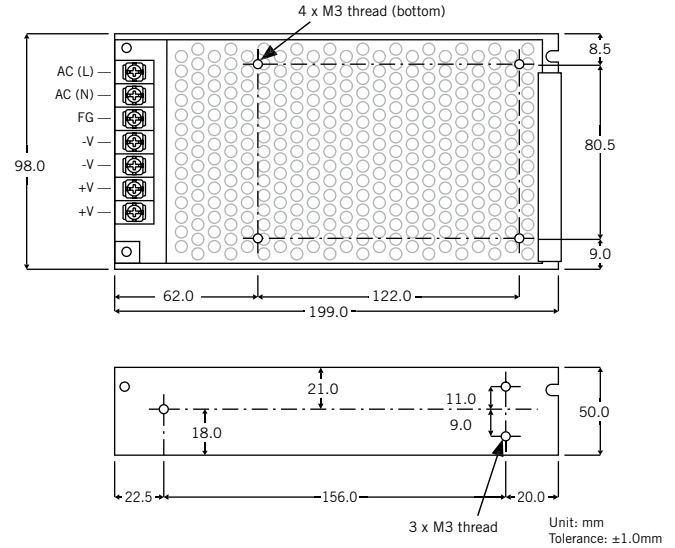
### Connector Types:

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

**RoHS Compliance:** This power supply meets the requirements 2002/95/EC, known as the RoHS initiative.

# AWSP150 Series

150 Watt Single Output Enclosed Switching Power Supply with Power Factor Correction for General Purpose Applications



## SPECIFICATIONS (@25°C)

### Input Characteristics

Input Voltage:	88 - 264VAC
Input Frequency Range:	47 - 63Hz
Power Factor:	> 0.92
Max Input Current:	2.7A (max)
Max Inrush Current:	20 / 40A @ 110 / 220 VAC (cold start)
Leakage Current:	<3.5mA / 240Vac (Should be <750µA?)

### Output Characteristics

Minimum Load:	No minimum load
Adjustable Output Range:	±10%
Ripple/Noise (pk-pk 20MHz):	5/12/24V = 150/180/240mV
Regulation:	±1.0% Load / ±0.5% Line
Hold-up Time:	20ms min, 100% Load @ 220 VAC
Rise-up Time:	600ms max @ 230 VAC
Over Current Protection:	>105~150%, Auto-Recovery
Over Voltage Protection:	>125% (recycle AC to recover)

### General Specifications

Switching Frequency:	134kHz (PWM) / 687kHz (PFC)
Dimension (LxWxH):	7.83 x 3.86 x 1.65" / 199 x 98 x 42mm
Weight:	560g
Warranty:	2 years

### Environmental Specifications

Operating Temperature:	0~+60°C Full Load (see derating curve)
Storage Temperature:	-25~+75°C
Cooling:	Convection Cooled Operation
Humidity:	10~95% RH, non-condensing
Vibration:	10 - 55Hz, 2G 1min / cycle, period of 60min, each axis
Reliability:	>144,000 Hours MTBF

### EMC & Safety Specifications

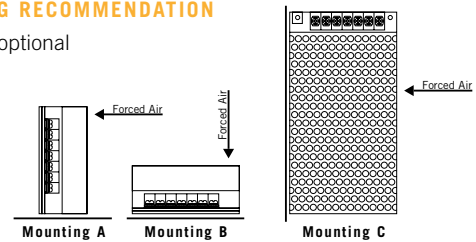
EMC Emissions:	EN55022,VCCI,CISPR22 Class B (Conducted & Radiated); IEC-61000-4-2, 61000-4-4, 61000-4-5, 61000-4-11
Safety Approval:	UL 60950 (UL File No: E204980) TUV EN60950 (TUV No: 50067240)
Dielectric Strength:	Input-Output 3kVAC / 1min Input-Ground 2.5kVAC / 1min
Insulation Resistance:	Output-Ground: >100Mohm / 500VDC

## CONNECTOR TYPES

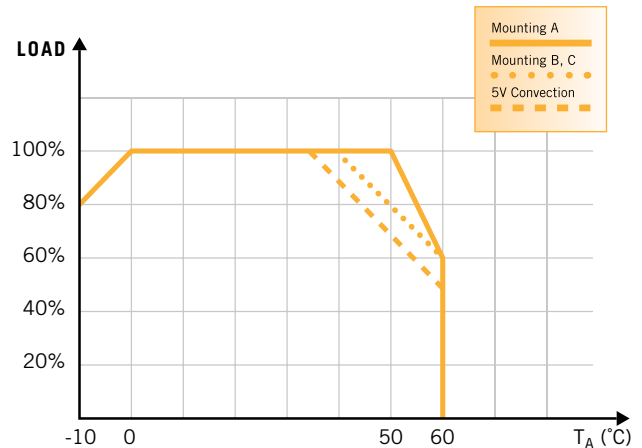
Input: Screw Terminals  
Output: Screw Terminals

## MOUNTING RECOMMENDATION

Forced air optional



## DERATING CURVE



Part Number	Voltage	Current	Efficiency
AWSP150-5	5.0V	30A	75%
AWSP150-12	12V	1.25A	80%
AWSP150-24	24V	6.3A	83%