

## AWSP100-24

### Description:

The AWSP100-24 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:	1.8A @ 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:	24Vdc
Output Current:	4.2A
Output Power:	100W
Adjustable Output Range:	±10%
Ripple & Noise:	100mV
Load Regulation:	±0.5%
Line Regulation:	±0.5%
Efficiency:	84%
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:

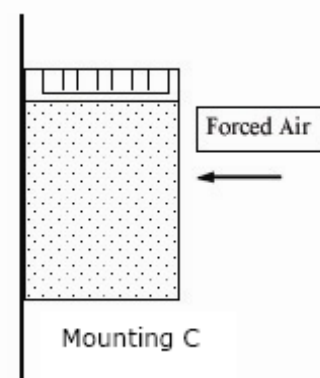
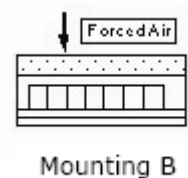
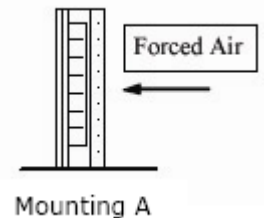
Switching Frequency:	134kHz (PWM) / 67kHz (PFC)
Dimension (LxWxH):	199x98x42
Weight:	560g net, 610g gross
Cooling:	Natural Convection
Isolation Resistance:	I/P—O/P, I/P—FG, O/P—FG: 500VDC/100Mohms
Dielectric Strength:	I/P—O/P: 3kVAc; I/P—FG: 2.5kVAc; O/P—FG: 0.5kVAc 1 min
Warranty:	2 years

#### Environmental Specifications:

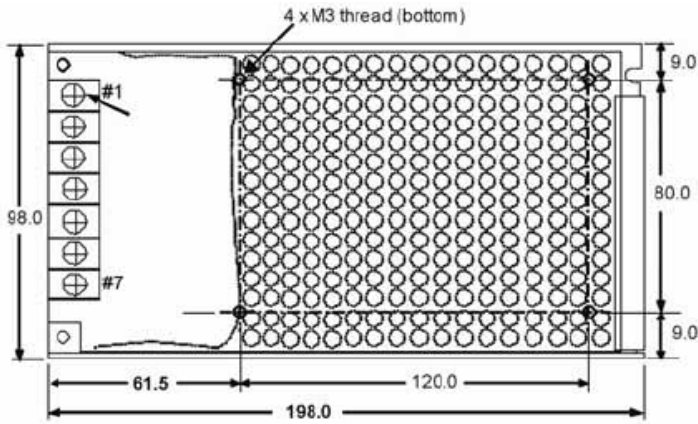
Operating Temperature:	-10° to 60°C
Operating Humidity:	20 to 90% RH, non-condensing
Storage Temperature:	-25 to 75°C
Storage Humidity:	10 to 95% RH, non-condensing
Vibration:	10-55Hz, 2G 1min/cycle, period of 60min, each X, Y & Z axis

#### 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)

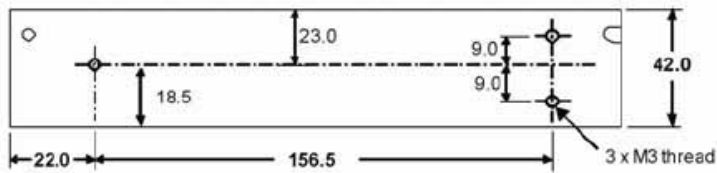


### Outline Dimensions (mm):



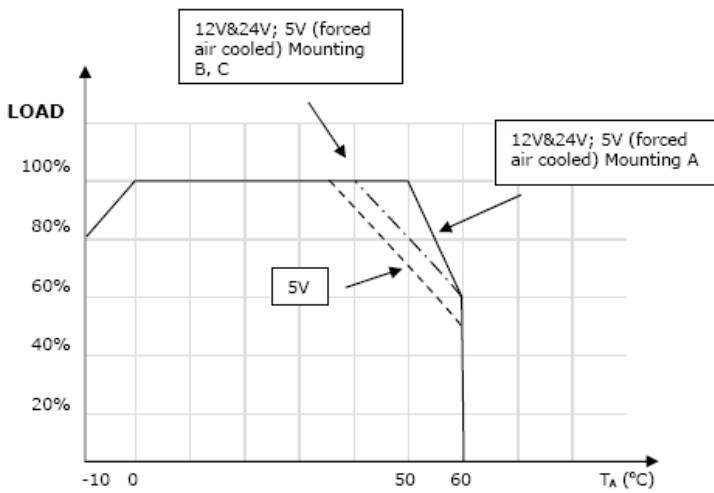
#### TERMINAL SCREW ASSIGNMENT

- # 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:

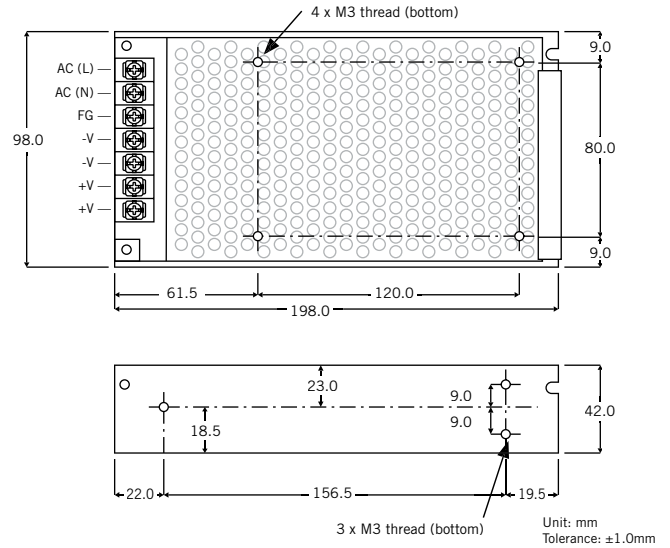
**Input:** Screw Terminals

**Output:** Screw Terminals

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

# AWSP100 Series

100 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
Max Input Current:	1.8A @ Vin (rated)
Max Inrush Current:	20A / 40A @ 110 / 220 VAC (cold start)
Power Factor:	>0.92

### Output Characteristics

Minimum Load:	No minimum load
Adjustable Output Range:	±10%
Ripple & Noise:	100mV
Regulation:	±1.0% Load / ±0.5% Line
Efficiency:	75%
Start-up Time:	300ms max @ 230 VAC
Hold-up Time:	20ms min, 100% Load@230Vac
Rise-up Time:	600ms max, 100% Load@230Vac
Over Current Protection:	105% - 150%
Over Voltage Protection:	125% - 145% Reset by recycle AC

### General Specifications

Switching Frequency:	134kHz (PWM) / 67kHz (PFC)
Dimension (LxWxH):	7.83 x 3.86 x 1.65" / 199 x 98 x 42mm
Weight:	560g net, 610g gross
Warranty:	2 years

### Environmental Specifications

Operating Temperature:	0~60°C Full Load
Storage Temperature:	-25~+75°C
Humidity:	20 to 90% RH, non-condensing
Vibration:	10 - 55Hz, 2G 1min / cycle, period of 60min, each axis
Reliability:	>167,000 Hours MTBF

### EMC & Safety Specifications

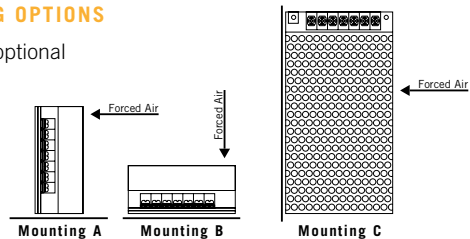
EMC Emissions:	Conforms to EN55022,VCCI,CISPR22 Class B (Conducted & Radiated); IEC-61000-4-2, 61000-4-4, 61000-4-5, 61000-4-11
Safety Approval:	UL 60950 (UL File No: E204980) TUV EN60950 (TUV No: 50067240)

## CONNECTOR TYPES

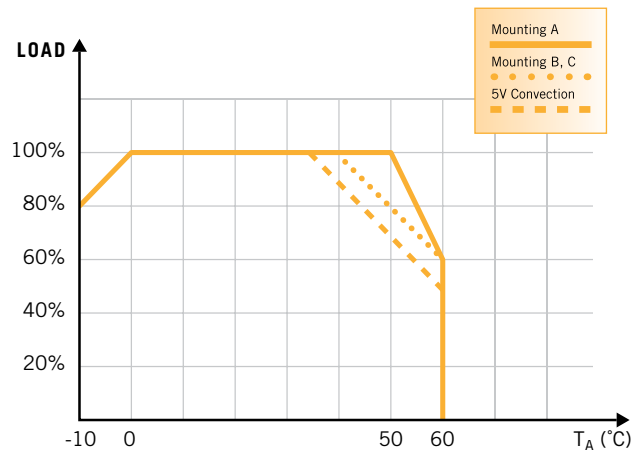
Input: Screw Terminals  
Output: Screw Terminals

## MOUNTING OPTIONS

Forced air optional



## DERATING CURVE



Part Number	Voltage	Current	Efficiency
AWSP100-5	5V	20A	75%
AWSP100-12	12V	8.4A	80%
AWSP100-24	24V	4.2A	84%