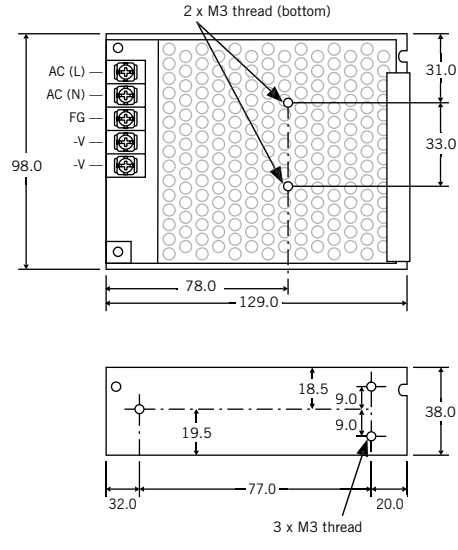


# AWSP40 Series

40 Watt Single Output Enclosed Switching Power Supply for General Purpose Applications



Unit: mm  
Tolerance: ±1.0mm

## SPECIFICATIONS (@25°C)

### Input Characteristics

Input Voltage: 85 - 264VAC  
 Input Frequency Range: 47 - 63Hz  
 Max Input Current: 1.0A (max)  
 Max Inrush Current: 20 / 40A @ 110 / 220 VAC (cold start)

### Output Characteristics

Minimum Load: No minimum load  
 Adjustable Output Range: ±10%  
 Ripple/Noise (pk-pk 20MHz): 5/12/24V = 75/100/100mV  
 Regulation: ±1.0% Load / ±0.5% Line  
 Hold-up Time: 30ms min, 100% Load @ 220 VAC  
 Rise-up Time: 300ms max @ 220 VAC  
 Over Current Protection: >120%, Auto-Recovery  
 Over Voltage Protection: >110% (Zener Diode)

### General Specifications

Switching Frequency: 50kHz  
 Dimension (LxWxH): 5.08 x 3.86 x 1.50" / 129 x 98 x 38mm  
 Weight: 360g  
 Warranty: 2 years

### Environmental Specifications

Operating Temperature: 0~+45°C Full Load, derate 3.33%/°C up to 60°C  
 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: >176,000 Hours MTBF

### EMC & Safety Specifications

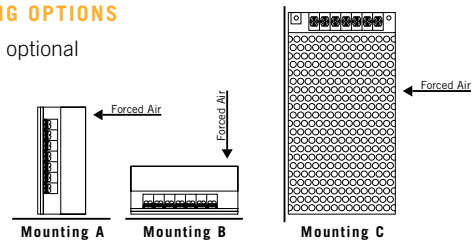
EMC Emissions: EN55022, VCCI, CISPR22 Class B (Conducted & Radiated); IEC-61000-4-2, 61000-4-4, 61000-4-5, 61000-4-11  
 Safety Approval: UL 60950 (UL File No: E204980)  
 Dielectric Strength: TÜV EN60950 (TUV No: 50067240)  
 Insulation Resistance: Input-Output 3kVAC / 1min  
 Input-Ground 2.5kVAC /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

## CONNECTOR TYPES

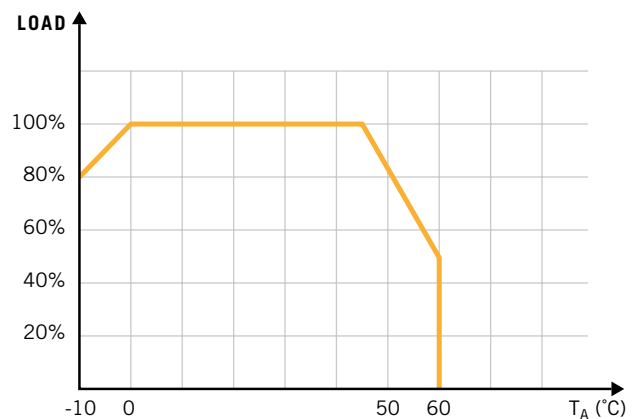
Input: Screw Terminals  
 Output: Screw Terminals

## MOUNTING OPTIONS

Forced air optional



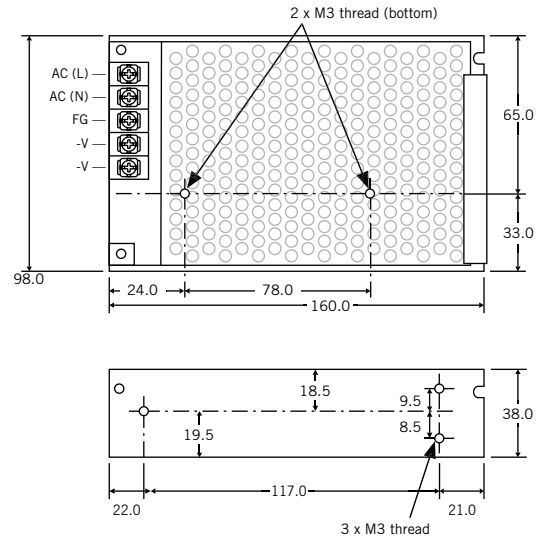
## DERATING CURVE



Part Number	Voltage	Current	Efficiency
AWSP40-5	5.0V	7.6A	72%
AWSP40-12	12V	3.3A	77%
AWSP40-24	24V	1.7A	80%

# AWSP60 Series

60 Watt Single Output Enclosed Switching Power Supply for General Purpose Applications



## SPECIFICATIONS (@25°C)

### Input Characteristics

Input Voltage: 85 - 264VAC  
 Input Frequency Range: 47 - 63Hz  
 Max Input Current: 1.3A (max)  
 Max Inrush Current: 20 / 40A @ 110 / 220 VAC (cold start)

### Output Characteristics

Minimum Load: No minimum load  
 Adjustable Output Range: ±10%  
 Ripple/Noise (pk-pk 20MHz): 5/12/24V = 75/100/100mV  
 Regulation: ±1.0% Load / ±0.5% Line  
 Hold-up Time: 30ms min, 100% Load @ 220 VAC  
 Rise-up Time: 300ms max @ 220 VAC  
 Over Current Protection: >120%, Auto-Recovery  
 Over Voltage Protection: >110% (Zener Diode)

### General Specifications

Switching Frequency: 45kHz  
 Dimension (LxWxH): 6.30 x 3.86 x 1.50" / 160 x 98 x 38mm  
 Weight: 450g  
 Warranty: 2 years

### Environmental Specifications

Operating Temperature: 0~+45°C Full Load, derate 3.33%/°C up to 60°C  
 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: >150,000 Hours MTBF

### EMC & Safety Specifications

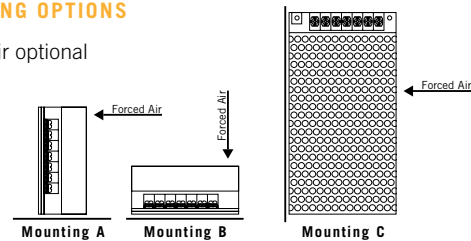
EMC Emissions: EN55022,VCCI,CISPR22 Class B (Conducted & Radiated); IEC-61000-4-2, 61000-4-4, 61000-4-5, 61000-4-11  
 Safety Approval: UL 60950 (UL File No: E204980)  
 TUV EN60950 (TUV No: 50067240)  
 Dielectric Strength: Input-Output 3kVAC / 1min  
 Input-Ground 2.5kVAC / 1min  
 Insulation Resistance: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

## CONNECTOR TYPES

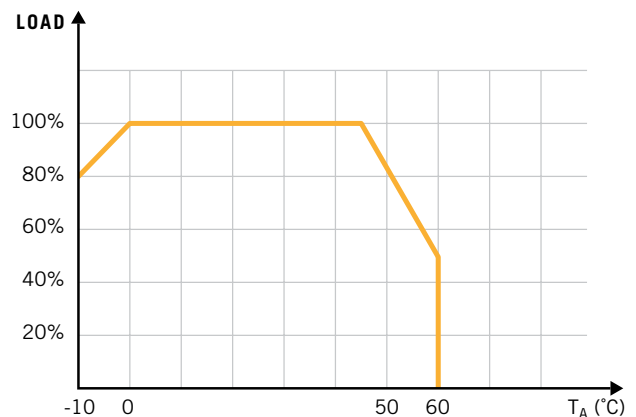
Input: Screw Terminals  
 Output: Screw Terminals

## MOUNTING OPTIONS

Forced air optional



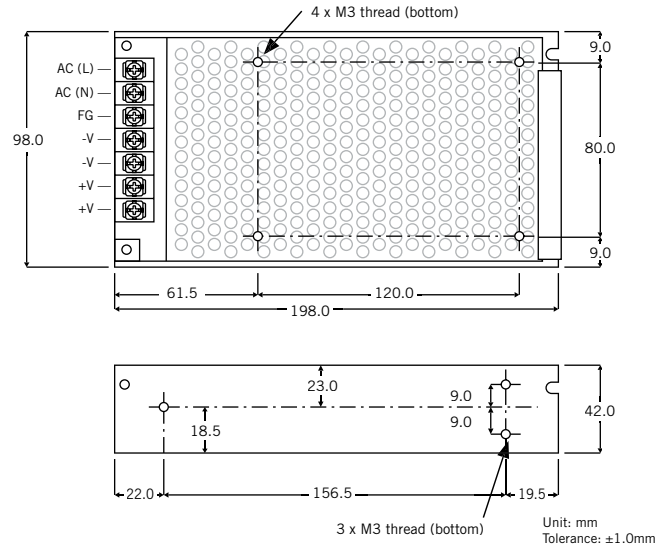
## DERATING CURVE



Part Number	Voltage	Current	Efficiency
AWSP60-5	5.0V	12A	73%
AWSP60-12	12V	5.0A	78%
AWSP60-24	24V	2.5A	81%

# 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

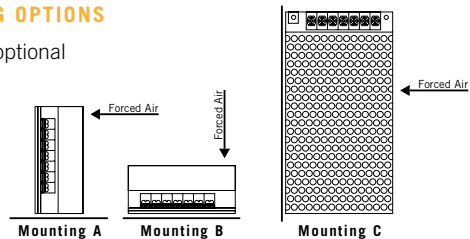
EMC Emissions:	Conforms to EN55022,VCCI,CISPR22 Class B (Conducted & Radiated); IEC-61000-4-2, 61000-4-4, 61000-4-5, 61000-4-11
Safety Approval:	UL 60950 (UL File No: E204980) TUV EN60950 (TUV No: 50067240)

## CONNECTOR TYPES

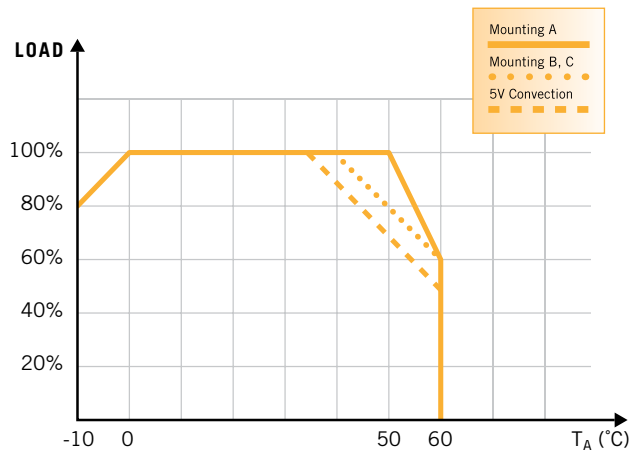
Input: Screw Terminals  
Output: Screw Terminals

## MOUNTING OPTIONS

Forced air optional



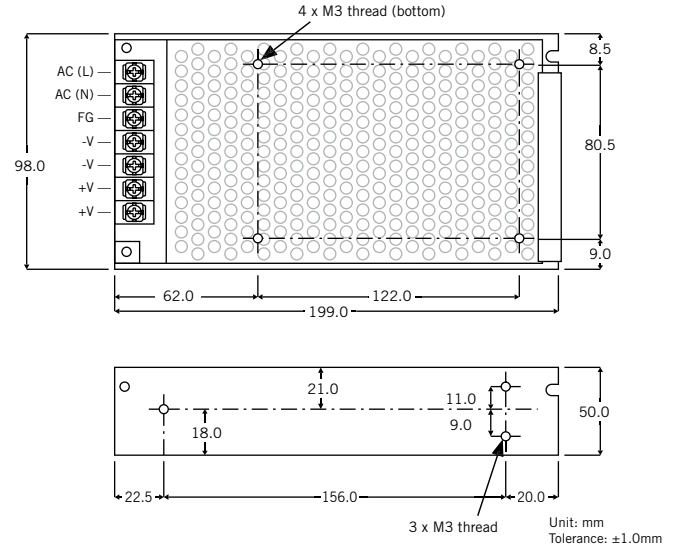
## DERATING CURVE



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

# 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

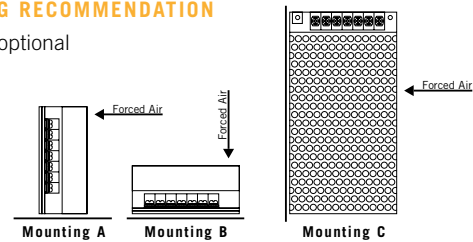
EMC Emissions:	EN55022,VCCI,CISPR22 Class B (Conducted & Radiated); IEC-61000-4-2, 61000-4-4, 61000-4-5, 61000-4-11
Safety Approval:	UL 60950 (UL File No: E204980) TUV EN60950 (TUV No: 50067240)
Dielectric Strength:	Input-Output 3kVAC / 1min Input-Ground 2.5kVAC / 1min
Insulation Resistance:	Output-Ground: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

## CONNECTOR TYPES

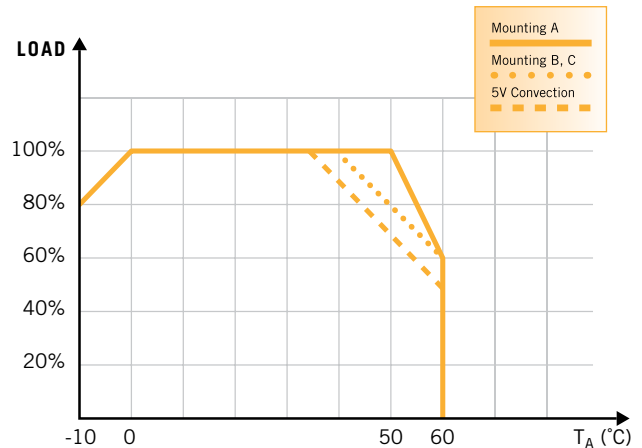
Input: Screw Terminals  
Output: Screw Terminals

## 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%