

## LPS100-M Series

150 Watts

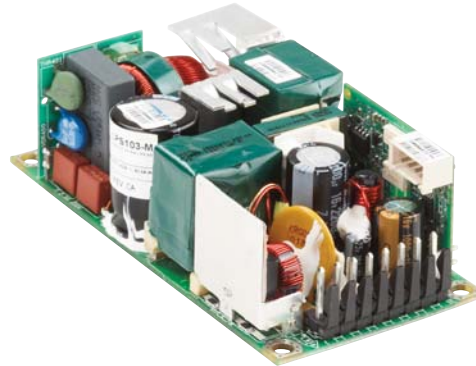
**Total Power:** 80 - 150 Watts  
**Input Voltage:** 90 - 264 Vac  
**# of Outputs:** Single

### Special Features

- Medical and ITE safeties
- Active power factor correction
- 2" x 4" footprint
- Less than 1U high
- EN61000-3-2 compliant
- Remote sense
- Power fail
- Adjustable main output
- Built-in Class B EMI filter
- Overvoltage protection
- Overload protection
- Thermal overload protection
- Isolated 12 V Fan output

### Safety

**TUV** 60950, 60601-1  
**UL** 60950, 60601-1  
**CSA** 60950, 60601-1  
**NEMKO** 60950, 60601-1  
**AUSTEL** 60950, 60601-1  
**CB** Certificate and report  
**CE** Mark (LVD)



**Preliminary**

## Electrical Specifications

### Input

**Input range:** 90 - 264 Vac; 120 - 300 Vdc  
**Frequency:** 47-63 Hz  
**Inrush current:** 50 A max., cold start @ 25 °C  
**Efficiency:** 88% typical at full load  
**EMI/RFI:** FCC Class B conducted; CISPR22 Class B conducted; EN55022 Class B conducted; VDE0878PT3 Class B conducted  
**Power factor:** 0.99 typical  
**Safety ground leakage current:** 275  $\mu$ A @ 50/60 Hz, 264 Vac input

### Output

**Maximum power:** 100 W for convection; 150 W with 30 CFM forced air  
**Adjustment range:**  $\pm$ 10% minimum on the main outputs  
**Fan output:** 12 V @ 1 A isolated,  $\pm$ 5%  
**Hold-up time:** 10 ms @ 150 W load, 120 Vac input  
**Overload protection:** Short circuit protection on all outputs. Case overload protected @ 110-160% above rating  
**Overvoltage protection:** 15-35% above nominal output

### Logical Control

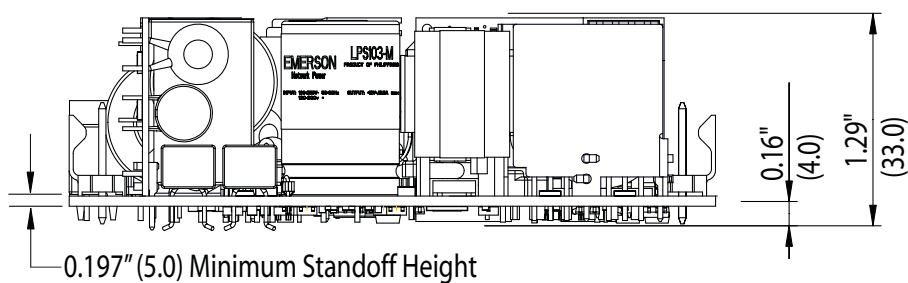
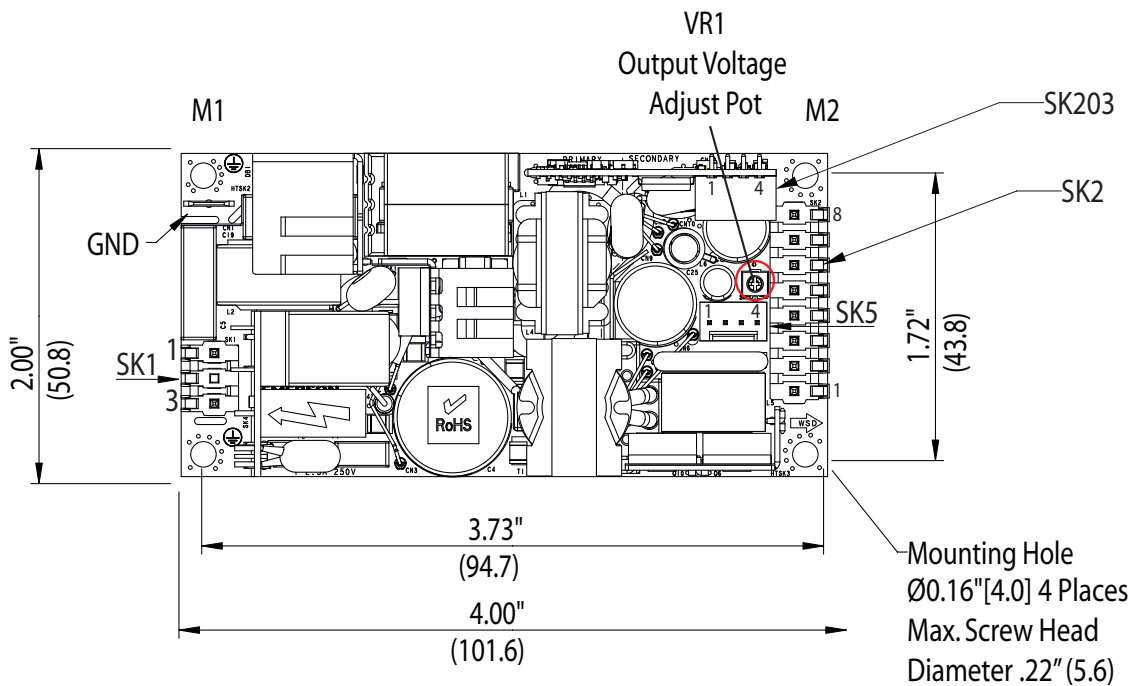
**Power failure:** Open collector logic signal goes high 100-500 msec after main output; it goes low at least 6 msec before loss of regulation  
**Remote sense:** Compensates for 0.5 V lead drop min. Will operate without remote sense connected. Reverse connection protected.

## Environmental Specifications

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LPS103-M Series  
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Operating temperature:	0° to 50 °C ambient derate each output as 2.5% per degree from 50° to 70 °C. -20 °C start up
Storage temperature:	-40 °C to +85 °C
Electromagnetic susceptibility:	designed to meet EN61000-4; -2, -3, -4, -5, -6, -8, -11 Level 3
Humidity:	Operating; non-condensing 10% to 95% RH
Vibration:	IEC68-2-6 to the levels of IEC721-3-2
MTBF demonstrated	>550,000 hours at full load and 25 °C ambient conditions

## Mechanical Drawing



## Ordering Information

Model Number	Output Voltage	Minimum Load	Maximum Load with Convection Cooling	Maximum Load with 30CFM Forced Air	Peak Load	Regulation <sup>2</sup>	Ripple P/P (PAR) <sup>3</sup>
LPS103-M	12 V	0 A	8.3 A	12.5 A	14 A	±2%	120 mV

1. Peak current lasting <30 seconds with a maximum 10% duty cycle.
2. At 25°C including initial tolerance, line voltage, load currents and output voltages adjusted to factory settings.
3. Peak-to-peak with 20 MHz bandwidth and 10 µF (tantalum capacitor) in parallel with a 0.1 µF capacitor at rated line voltage and load ranges.

## Pin Assignments

### Connector LPS100-M

SK1	Pin1 Pin3	Neutral Line
SK2	Pin1 Pin2 Pin3 Pin4 Pin5 Pin6 Pin7 Pin 8	GND GND GND GND +Vout +Vout +Vout +Vout
SK203	Pin1 Pin2 Pin 3 Pin 4	GND Power Fail - Remote Sense + Remote Sense
SK5	Pin1 Pin2 Pin3 Pin4	+12 V FAN +12 V FAN FAN GND FAN GND

### Mating Connectors

(SK1)AC Input:	Molex P/N 09-50-3031 or Landwin P/N: 306050302
(SK2)DC Output:	Molex P/N 09-50-3081 or Landwin P/N: 306050802
(SK203) Remote Sense:	Molex P/N 35155-0400 or Landwin P/N: 2640504A0
(SK5) Fan:	Molex P/N 22-10-2047 or Landwin P/N: 251050400
Astec Connector Kit # 70-841-025, includes all of the above.	

### Notes:

1. Specifications subject to change without notice.
2. All dimensions in inches (mm), tolerance is ±.02".
3. mounting holes MH1, MH2, MH3 should be grounded for EMI purpose
4. Mounting MH1 is safety ground connection
5. Specifications are for convection rating at factory settings at 115 Vac input 25 C deg unless otherwise stated.
6. This power supply requires mounting on metal standoffs 0.20" (5 m) in height.
7. Warranty: 2 year
8. Weight: 0.44 lb. / 0.20 kg

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