Embedded Power for **Business-Critical Continuity** 

> Rev. 4.30.09\_#98 LPS200-M Series 1 of 3

## **LPS200-M Series** 250 Watts

**Total Power:** Input Voltage: # of Outputs:

125 - 250 Watts 90 - 264 Vac Single





## **Special Features**

- Medical and ITE safeties
- Active power factor correction •
- 3" x 5" 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 12V Fan output •
- LPX80 enclosure available

# Safety

- TUV
- UL
- cULus
- TUV
- CB
- CE

### 60950, 60601-1 60950, 60601-1

60950, 60601-1

60950, 60601-1

### Certificate & report

## Mark (LVD)

# **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:	86% 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 uA @ 50/60 Hz, 264 Vac input				
Output					
Maximum power:	125 W for convection ; 250 W (200 W for LPS202-M) with 30CFM forced air				
Adjustment range:	±10% minimum on the main outputs				
Fan output:	12 V @ 1 A isolated, ±10%				
Hold-up time:	16 ms @ 250 W load, 120 Vac input				
Overload protection:	Short circuit protection on all outputs. Case overload protected @ 110-160% above rating				
Overvoltage protection	: 15-50% 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**

Operating temperature:0° to 50 °C ambient derate each output as 2.5% per degree from 50° to 70 °C. -20 °C<br/>start upStorage temperature:-40 °C to +85 °CElectromagneticDesigned to meet EN61000-4;<br/>-2, -3, -4, -5, -6, -8, -11 Level 3Humidity:Operating; non-condensing 10% to 95% RHVibration:IEC68-2-6 to the levels of IEC721-3-2MTBF demonstrated:>550,000 hours at full load and 25 °C ambient conditions

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 (PARD) <sup>3</sup>
LPS202-M	5 V	0 A	20 A	40 A	44 A	±2%	50 mV
LPS203-M	12 V	0 A	10.3 A	20.8 A	22 A	±2%	120 mV
LPS204-M	15 V	0 A	8.3 A	16 A	18 A	±2%	150 mV
LPS205-M	24 V	0 A	5.2 A	10.4 A	11.5 A	±2%	240 mV
LPS208-M	48 V	0 A	2.6 A	5.2 A	5.8 A	±2%	480 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 Assi	gnments	
Connector	LPS200-M	
SK1	Pin 1	Neutral
	Pin 3	Line
SK2	TB-1	Common
	TB-2	Main output
SK3	Pin 1	+V1 Remote sense
	Pin 2	-V1 Remote sense
	Pin 3	N/C
	Pin 4	N/C
	Pin 5	+Power fail
	Pin 6	Common
	Pin 7	N/C
	Pin 8	Common
	Pin 9	+12 V Fan
	Pin 10	+12 Fan Return (isolated)

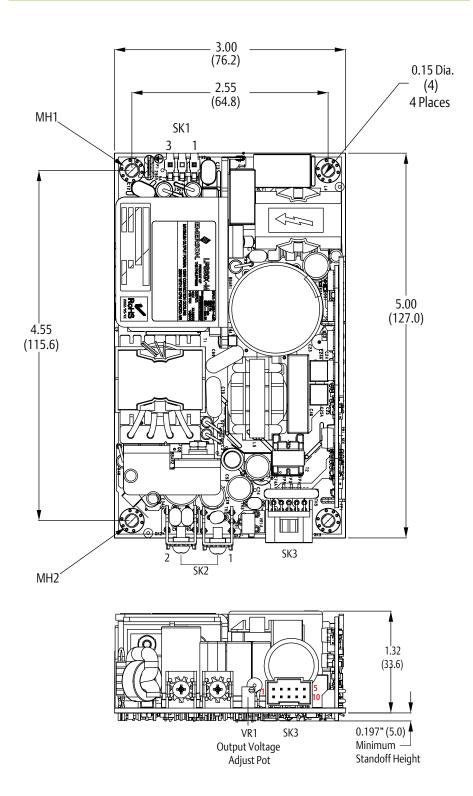
he					
. Specifications subject to change without notice.					
All dimensions in inches (mm), tolerance is ±0.02" (±0.5mm)					
Mounting holes MH1 and MH2 should be grounded for EMI purposes.					
Mounting hole MH1 is safety ground connection.					
Specifications are for convection rating at factory settings at 115 VAC input, 25 °C unless otherwise stated.					
<ul> <li>This power supply requires mounting on metal standoffs 0.20" (5m) in height.</li> </ul>					
•					

7. Warranty: 2 years

8. Weight: 0.75 lb/0.34 kg

Rev. 4.30.09\_#98 LPS200-M Series 2 of 3

### **Mechanical Drawing**



#### Americas

Rev. 4.30.09\_#98 LPS200-M Series 3 of 3

5810 Van Allen Way Carlsbad, CA 92008 USA Telephone: +1 760 930 4600 Facsimile: +1 760 930 0698

### Europe (UK)

Waterfront Business Park Merry Hill, Dudley West Midlands, DY5 1LX United Kingdom Telephone: +44 (0) 1384 842 211 Facsimile: +44 (0) 1384 843 355

### Asia (HK)

14/F, Lu Plaza 2 Wing Yip Street Kwun Tong, Kowloon Hong Kong Telephone: +852 2176 3333 Facsimile: +852 2176 3888

For global contact, visit:

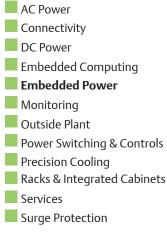
www.PowerConversion.com

techsupport.embeddedpower @emerson.com

While every precaution has been taken to ensure accuracy and completeness in this literature, Emerson Network Power assumes no responsibility, and disclaims all liability for damages resulting from use of this information or for any errors or omissions.

#### **Emerson Network Power.**

The global leader in enabling business-critical continuity.



#### EmersonNetworkPower.com

Emerson Network Power and the Emerson Network Power logo are trademarks and service marks of Emerson Electric Co. ©2009 Emerson Electric Co.