

## LPS200-M Series

250 Watts

**Total Power:** 125 - 250 Watts  
**Input Voltage:** 90 - 264 Vac  
**# of Outputs:** 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

### Safety

- **TUV** 60950, 60601-1
- **UL** 60950, 60601-1
- **cULus** 60950, 60601-1
- **CB** Certificate & report
- **CE** 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 (100 W for LPS202-M) ; 250 W (200 W for LPS202-M) with 30CFM forced air
Adjustment range:	±10% minimum on the main outputs
Fan output:	12 V @ 0.5 A convection, @ 1 A forced air 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 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

## 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	16.6 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.

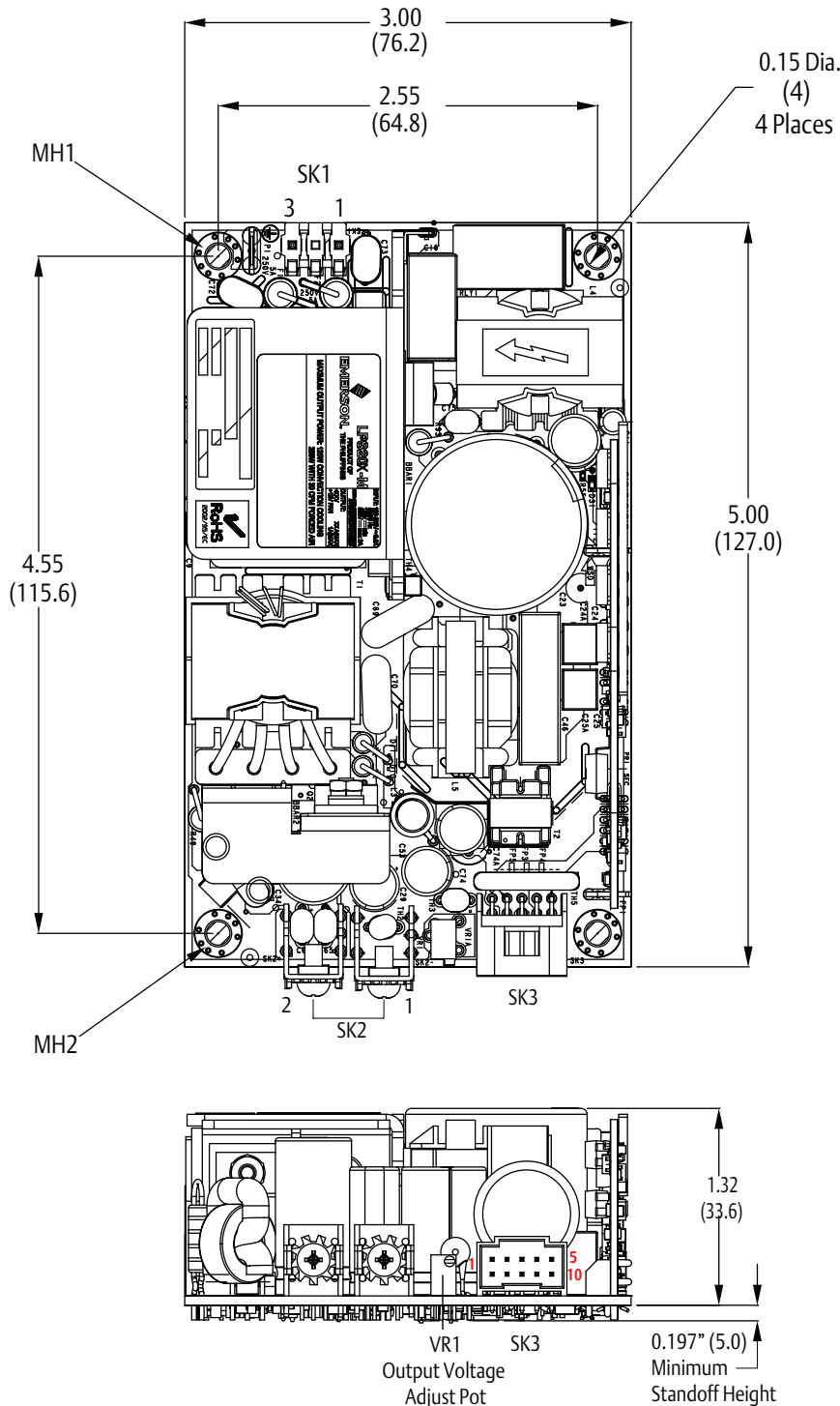
## Pin Assignments

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)	

## Mating Connectors

AC Input (SK1):	Molex 09-50-8031 (connector) PINS: 08-52-0113
AC Ground:	Molex 01-90020001
DC Output (SK2):	Molex 19141-0058/0063/0083 Spade lug based on Cable Ampacity/AWG
Control Signals (SK3):	Molex 90142-0010 (USA) PINS: 90119-2110 or Amp: 87977-3 PINS: 87309-8
Emerson Network Power Connector Kit #70-841-020, includes all of the above.	
<ol style="list-style-type: none"> <li>1. Specifications subject to change without notice.</li> <li>2. All dimensions in inches (mm), tolerance is ±0.02" (±0.5mm)</li> <li>3. Mounting holes MH1 and MH2 should be grounded for EMI purposes.</li> <li>4. Mounting hole MH1 is safety ground connection.</li> <li>5. Specifications are for convection rating at factory settings at 115 VAC input, 25 °C unless otherwise stated.</li> <li>6. This power supply requires mounting on metal standoffs 0.20" (5m) in height.</li> <li>7. Warranty: 2 years</li> <li>8. Weight: 0.75 lb/0.34 kg</li> </ol>	

Mechanical Drawing



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