

LPS100-M Series

150 Watts

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



Rev. 11.02.11_29
LPS100-M Series
1 of 3



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
- LPX50 Enclosure kit available
- POE isolation on main output of LPS109-M

Safety

- TUV 60950, 60601-1
- UL 60950, 60601-1
- cULus 60950, 60601-1
- CB Certificate & report
- CE Mark (LVD)
- CQC Mark

Electrical Specifications

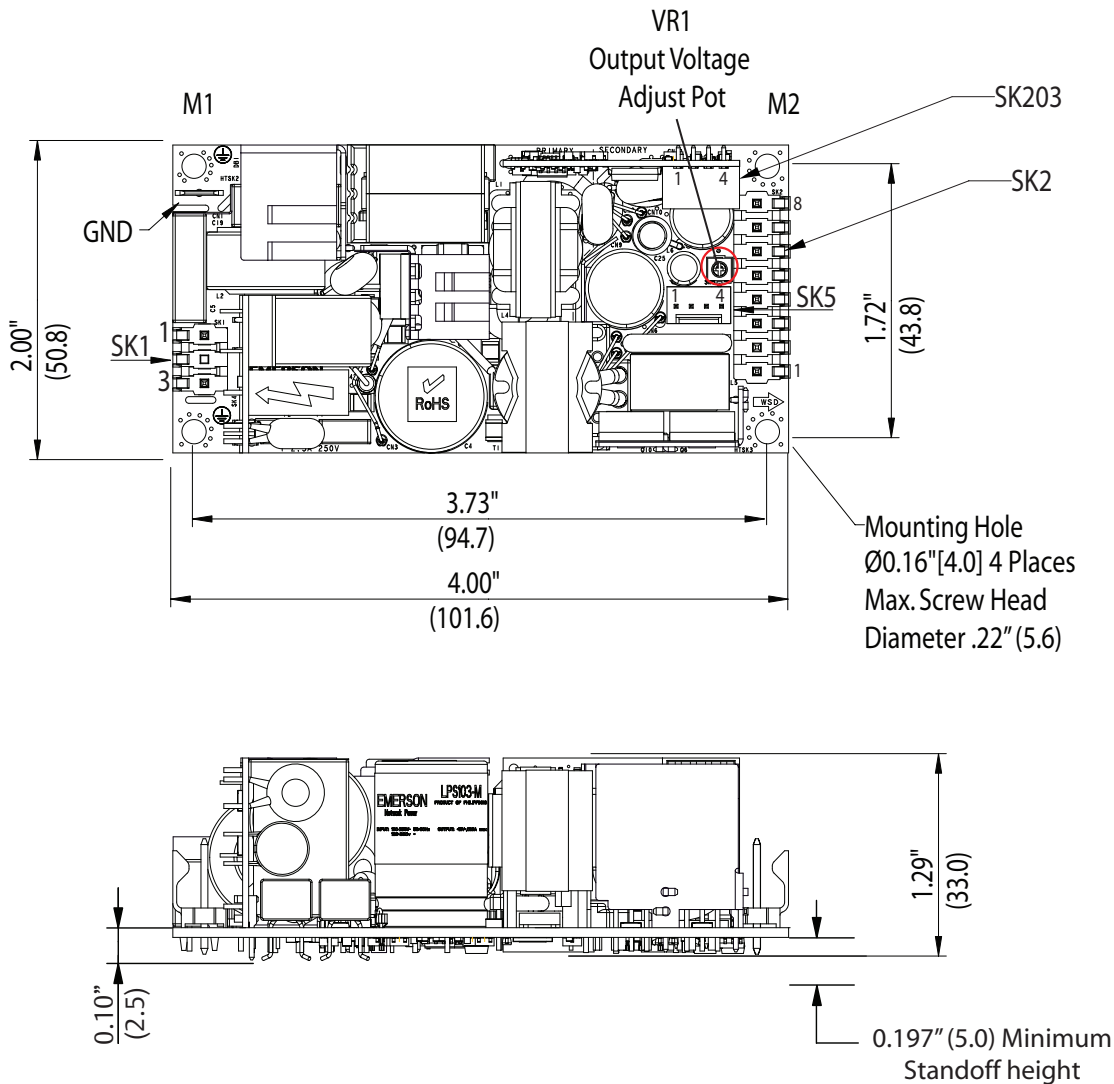
Input	
Input range:	90 - 264 Vac; 120 - 300 Vdc
Frequency:	47-63 Hz
Inrush current:	50 A max., cold start @ 25 °C
Efficiency:	88% typical at full load
EMI/RFI:	FCC Class B conducted; CISPR22 Class B conducted; EN55022 Class B conducted; VDE0878PT3 Class B conducted
Safety ground leakage current:	275 µA @ 50/60 Hz, 264 Vac input
Output	
Maximum power:	100 W for convection (80 W for LPS102-M); 150 W with 30 CFM forced air (120 W for LPS102-M)
Adjustment range:	± 10% minimum on the main outputs
Fan output:	12 V @ 1 A isolated, ± 10%
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

Rev. 11.02.11_29
LPS100-M Series
2 of 3

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 calculated:	534,000 hours at full load and 25 °C ambient conditions, 230 V input, Bellcore

Mechanical Drawing



Ordering Information

Model Number	Output Voltage	Minimum Load	Maximum Load with Convection Cooling	Maximum Load with 30CFM Forced Air	Peak Load	Regulation ²	Ripple P/P (PARD) ³
LPS102-M	5 V	0 A	16 A	24 A	30 A	± 2%	50 mV
LPS103-M	12 V	0 A	8.3 A	12.5 A	14 A	± 2%	120 mV
LPS104-M	15 V	0 A	6.7 A	10 A	11 A	± 2%	150 mV
LPS105-M	24 V	0 A	4.2 A	6.3 A	7 A	± 2%	240 mV
LPS108-M	48 V	0 A	2.1 A	3.1 A	3.5 A	± 2%	480 mV
LPS109-M	54 V	0 A	1.85 A	2.8 A	3.1 A	± 2%	540 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	Pin 1	Neutral
	Pin 3	Line
SK2	Pin 1	Common
	Pin 2	Common
	Pin 3	Common
	Pin 4	Common
	Pin 5	+Vout
	Pin 6	+Vout
	Pin 7	+Vout
	Pin 8	+Vout
SK203	Pin 1	Common
	Pin 2	Power Fail
	Pin 3	- Remote Sense
	Pin 4	+ Remote Sense
SK5	Pin 1	+12 V Fan
	Pin 2	+12 V Fan
	Pin 3	Fan Return (Isolated)
	Pin 4	Fan Return (Isolated)

Mating Connectors

AC Input (SK1):	Molex P/N: 09-50-3031, Pins: 08-52-0072 or Landwin P/N: 3060S0302, Pins: 3360T011P
AC Ground	Molex: 01-90020001
DC Output (SK2):	Molex P/N: 09-50-3081, Pins: 08-52-0072 or Landwin P/N: 3060S0802, Pins: 3360T011P
Remote Sense (SK203):	Molex P/N: 35155-0400, Pins: 08-70-0057 or Landwin P/N: 2640S04A0, Pins: 2543T011P
Fan: (SK5):	Molex P/N: 22-01-1042, Pins: 08-70-0049 or Landwin P/N: 2510S04A0, Pins: 2543T011P
Emerson Network Power 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 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 unless otherwise stated.
6. This power supply requires mounting on metal standoffs 0.20" (5 m) in height.
7. For DC input an external DC safety rated fuse must be used.
8. Warranty: 2 year
9. Weight: 0.44 lb. / 0.20 kg

Americas

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.Emerson.com/EmbeddedPower
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.

- AC Power
- Connectivity
- DC Power
- Embedded Computing
- Embedded Power**
- Monitoring
- Outside Plant
- Power Switching & Controls
- Precision Cooling
- Racks & Integrated Cabinets
- Services
- Surge Protection

EmersonNetworkPower.com

Emerson Network Power and the Emerson Network Power logo are trademarks and service marks of Emerson Electric Co.
©2011 Emerson Electric Co.