# LPS120 Series

120 Watts

**Total Power:** 80 - 130 Watts

**Total Power:** 80 - 130 Watt: **Input Voltage:** 85 - 264 VAC **Single** 



Rev. 09.15.09\_12 LPS120 Series 1 of 3



## **Special Features**

- Active power factor correction
- 3" x 5" footprint
- Less than 1U high
- EN61000-3-2 compliant
- Remote sense
- Power fail and remote inhibit
- Single wire current sharing
- Adjustable main output
- Built-in Class B EMI filter
- Overvoltage protection
- Overload protection
- Thermal overload protection
- 5 V Standby output and 12V Fan output

## **Electrical Specifications**

Input

Input range: 85 - 264 VAC; 127 - 300VDC

Frequency: 47 - 440 Hz

Inrush current: 40 A max., cold start @ 25 °C Efficiency: 80% typical at full load

EMI/RFI: FCC Class B conducted; CISPR22 Class B conducted; EN55022 Class B con-

ducted; VDE0878PT3 Class B conducted

Power factor: 0.99 typical

Safety ground 0.5 mA @ 50/60 Hz, 264 VAC input

leakage current:

Output

Maximum power: 80 W for convection; 130 W with 30CFM forced air

Adjustment range:  $\pm$  5% minimum on the main outputs

Fan output: 12 V @ 500mA - 5%, +7%

Standby outputs:  $5V @ 500mA \pm 5\%$ 

Hold-up time: 20ms @ 125 W load, 120 VAC input

Overload protection: Short circuit protection on all outputs. Case overload protected @

120 - 135% above rating

Overvoltage protection: 20 - 35% above nominal output

Remote sense: Compensates for 0.5 V lead drop max. Will operate without remote sense

connected. Reverse connection protected.

**Logical Control** 

Power failure: TTL logic signal goes high 100 - 500 msec after main output; it goes low at

least 4 msec before loss of regulation

Remote inhibit: Requires a contact closure to disable the outputs, except 5 V standby.

Remote sense: Compensates for 0.5 V lead drop min. Will operate without remote sense

connected. Reverse connection protected.

## Safety

TUV: 60950 UL: 60950 CSA 60950 NEMKO: 60950 AUSTEL: 60950

**CB:** Certificate and report

**CE:** Mark (LVD)





# **Environmental Specifications**

Rev. 09.15.09\_128 LPS120 Series

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

Designed to meet EN61000-4; Electromagnetic susceptibility: -2, -3, -4, -5, -6, -8, -11 Level 3

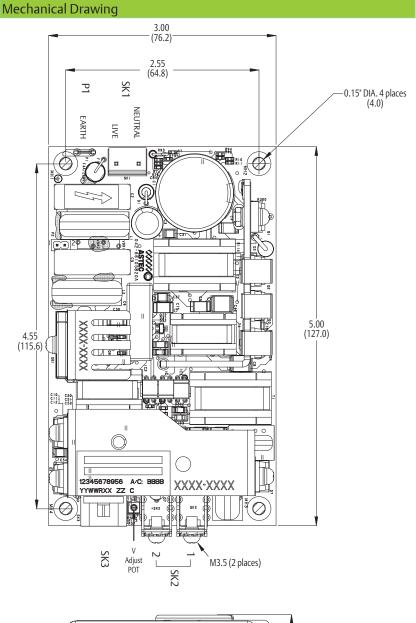
Operating; non-condensing Humidity:

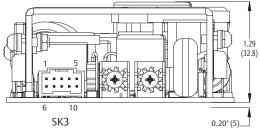
10% to 95% RH

IEC68-2-6 to the levels of Vibration:

IEC721-3-2

> 550,000 hours at full load and MTBF demonstrated 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>		
LPS121	3.3 V	0 A	21 A	36 A	29 A	± 2%	50 mV		
LPS122	5 V	0 A	16 A	26 A	29 A	± 2%	50 mV		
LPS123	12 V	0 A	6.7 A	10.8 A	12.8 A	± 2%	120 mV		
LPS124	15 V	0 A	5.3 A	8.7 A	10.0 A	± 2%	150 mV		
LPS125	24 V	0 A	3.4 A	5.4 A	6.3 A	± 2%	240 mV		
LPS128	48 V	0 A	1.7A	2.7 A	3.2 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  $\mu F$  (tantalum capacitor) in parallel with a 0.1  $\mu F$  capacitor at rated line voltage and load ranges.
- 4. When in parallel a 10% load is required for each power supply.

### Pin Assignments

Connector	LPS120	
SK1	Pin1 Pin3	Neutral Line
SK2	TB-1 TB-2	COMMON Main output
SK3	Pin1 Pin2 Pin3 Pin4 Pin5 Pin6 Pin7 Pin8 Pin9	+V1 Remote sense -V1 Remote sense +Remote inhibit -Remote inhibit +Power fail Common SWP +12V 12V common +5V standby

### **Mating Connectors**

Molex 09-50-8031 (connector) 08-52-0113 (pins) (SK1)AC Input:

(SK2)DC Output: Molex series 19141-0058/0063 Spade lug

(SK3) Control Signals:

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.

- 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
- 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" (5m) in height.
- 7. Warranty: 2 year
- 8. Weight: 0.71 lb. / 0.32 kg

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LPS120 Series

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