

# 125 Watts LPS120 Series

**Total Power:** 80-130 Watts  
**Input Voltage:** 85-264 VAC  
**# of Outputs:** Single



## Electrical Specs

### Input

Input range	85-264 VAC, 120-300 VDC
Frequency	47-440 Hz
Inrush current	40 A max., cold start @ 25°C
Efficiency	80% typical at full load
EMI filter	FCC Class B conducted CISPR 22 Class B conducted EN55022 Class B conducted VDE 0878 PT3 Class B conducted
Power factor	0.99 typical
Safety ground	
Leakage current	0.5 mA @ 50/60 Hz, 264 VAC input

### Output

Maximum power	80 W for convection; 130 W with 30 CFM forced air
Adjustment range	±5% minimum on the main outputs
Fan output	12V @ 500mA -5%, +7%
Standby outputs	5V @ 500mA ±5%
Hold-up time	20 ms @ 125 W load, 120 VAC input
Overload protection	Short circuit protection on all outputs. Case overload protected @ 120-135% above peak rating
Overvoltage protection	20% to 35% above nominal output

### 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 5V standby.
Remote sense	Compensates for 0.5 V lead drop min. Will operate without remote sense connected. Reverse connection protected.

## Special Features

- Active power factor correction
- 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

## Environmental

Operating temperature: 0° to 50°C ambient; derate each output at 2.5% per degree from 50° to 70°C

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

Humidity: Operating; non-condensing  
5% to 95%

Vibration: Three orthogonal axes, sweep at 1 oct/min, 5 min. dwell at four major resonances 0.75 G peak 5 Hz to 500 Hz, operational

Storage temperature: -40° to 85°C

Temperature coefficient: ±.04% per °C

MTBF demonstrated: >550,000 hours at full load and 25°C ambient condition

## Safety

TUV	60950
UL	60950
CSA	60950
NEMKO	60950
AUSTEL	60950
CB	Certificate and report
CE	Mark (LVD)

AMERICAS

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ASIA

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## Ordering Information

Model Number	Output Voltage	Minimum Load	Maximum Load with Convection Cooling	Maximum Load with 30 CFM Forced Air	Peak Load <sup>1</sup>	Regulation <sup>2</sup>	Ripple P/P (PAR) <sup>3</sup>
LPS121	3.3V	0A	21A	36A	29A	±2%	50mV
LPS122	5V	0A	16A	26A	29A	±2%	50mV
LPS123	12V	0A	6.7A	10.8A	12.8A	±2%	120mV
LPS124	15V	0A	5.3A	8.7A	10.0A	±2%	150mV
LPS125	24 V	0 A	3.4 A	5.4 A	6.3 A	±2%	240 mV
LPS128	48V	0 A	1.7 A	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 µF in parallel with a 0.1 µF capacitor at rated line voltage and load ranges.

## Pin Assignments

### Connector LPS120

SK1	Pin1	Neutral
	Pin3	Line
SK2	TB-1	COMMON
	TB-2	Main output
SK3	Pin1	+V1 Remote sense
	Pin2	-V1 Remote sense
	Pin3	+Remote inhibit
	Pin4	-Remote inhibit
	Pin5	+Power fail
	Pin6	Common
	Pin7	SWP
	Pin8	+12V
	Pin9	12V common
	Pin10	+5V standby

### Mating Connectors

- (SK1)AC Input: Molex BB-50-8061
- (SK2)DC Output: Molex series 19141-0058/0063
- (SK3) Control Signals:  
Molex 90142-0010 (USA)  
PINS: 90119-2110 or  
Amp: 87977-3  
PINS: 87309-8

Astec Connector Kit # 70-841-020, 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" (5m) in height.
7. Warranty: 1 year
8. Weight: 0.71 lb. / 0.32 kg

