

LPS120 Series

120 Watts

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



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

Safety

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

Electrical Specifications

Input

| | |
|-------------------------------|---|
| Input range | 85 - 264 VAC ; 127 - 300VDC |
| Frequency | 47-440 Hz |
| Inrush current | 40A max., cold start @ 25°C |
| Efficiency | 80% 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 | 0.5mA @ 50/60 Hz, 264 VAC input |

Output

| | |
|------------------------|---|
| Maximum power | 80W for convection ; 130W with 30CFM forced air |
| Adjustment range | ±5% minimum on the main outputs |
| Fan output | 12V @ 500mA - 5%, +7% |
| Standby outputs | 5V @ 500mA ±5% |
| Hold-up time | 20ms @ 125W load, 120VAC 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

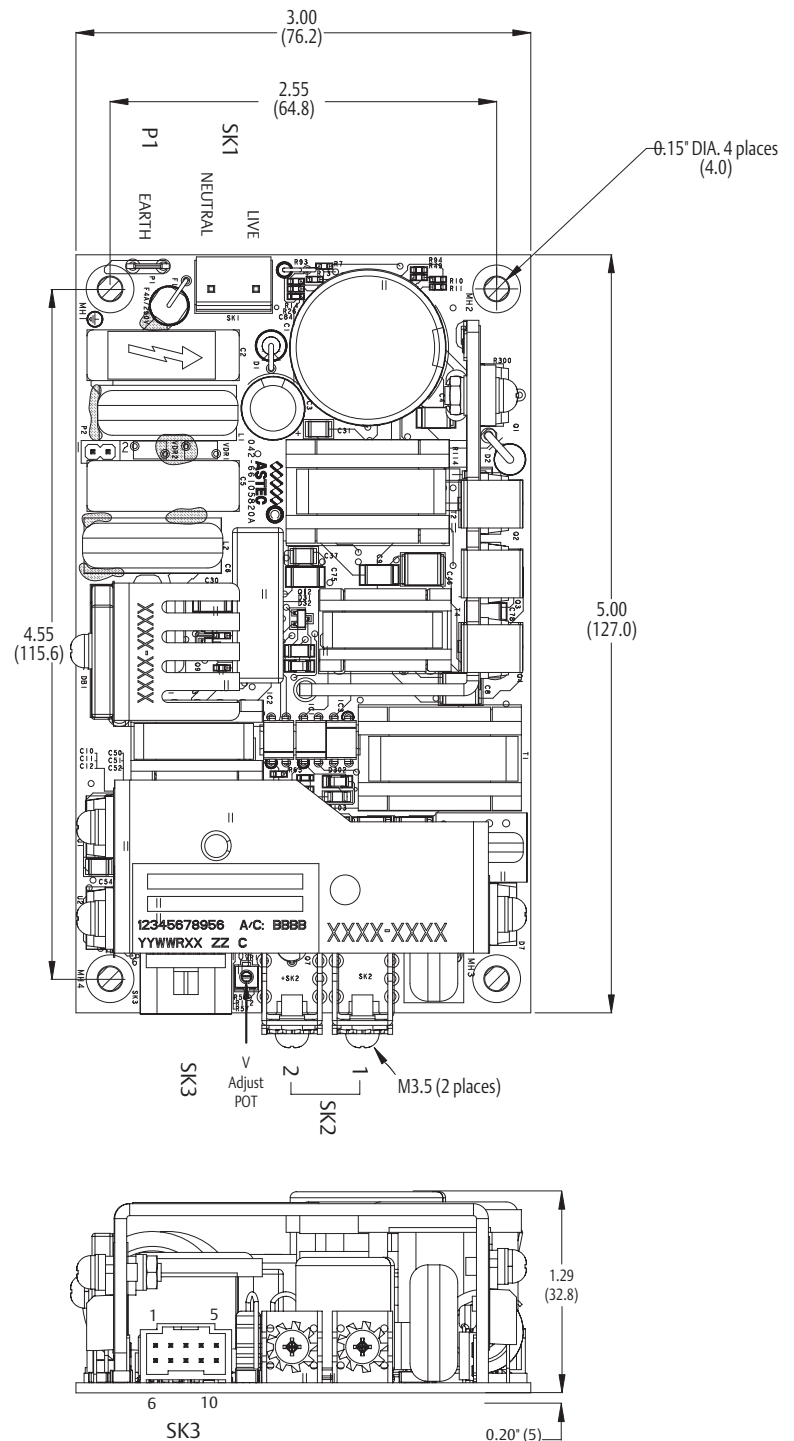
| | |
|----------------|--|
| Power failure | TTL logic signal goes high 100-500 msec after main output; it goes low at least 4 msec before loss of regulation |
| Remote inhibit | Requires a contact closure to disable the outputs, except 5V standby. |
| Remote sense | Compensates for 0.5 V lead drop 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 |

Mechanical Drawing



Ordering Information

| Model Number | Output Voltage | Minimum Load | Maximum Load with Convection Cooling | Maximum Load with 300CFM Forced Air | Peak Load | Regulation ² | Ripple P/P (PAR) ³ |
|--------------|----------------|--------------|--------------------------------------|-------------------------------------|-----------|-------------------------|-------------------------------|
| 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 | 24V | 0A | 3.4A | 5.4A | 6.3A | ±2% | 240mV |
| LPS128 | 48V | 0A | 1.7A | 2.7A | 3.2A | ±2% | 480mV |

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 LPS120

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

Mating Connectors

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

(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

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

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Printed in USA

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