LPS120 Series

120 Watts

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

RoHS 2002/95/EC

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:	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 conducted; VDE0878PT3 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 30CFM forced air
Adjustment range:	± 5% minimum on the main outputs
Fan output:	12 V @ 500mA - 5%, +7%
Standby outputs:	5V @ 500mA ± 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.

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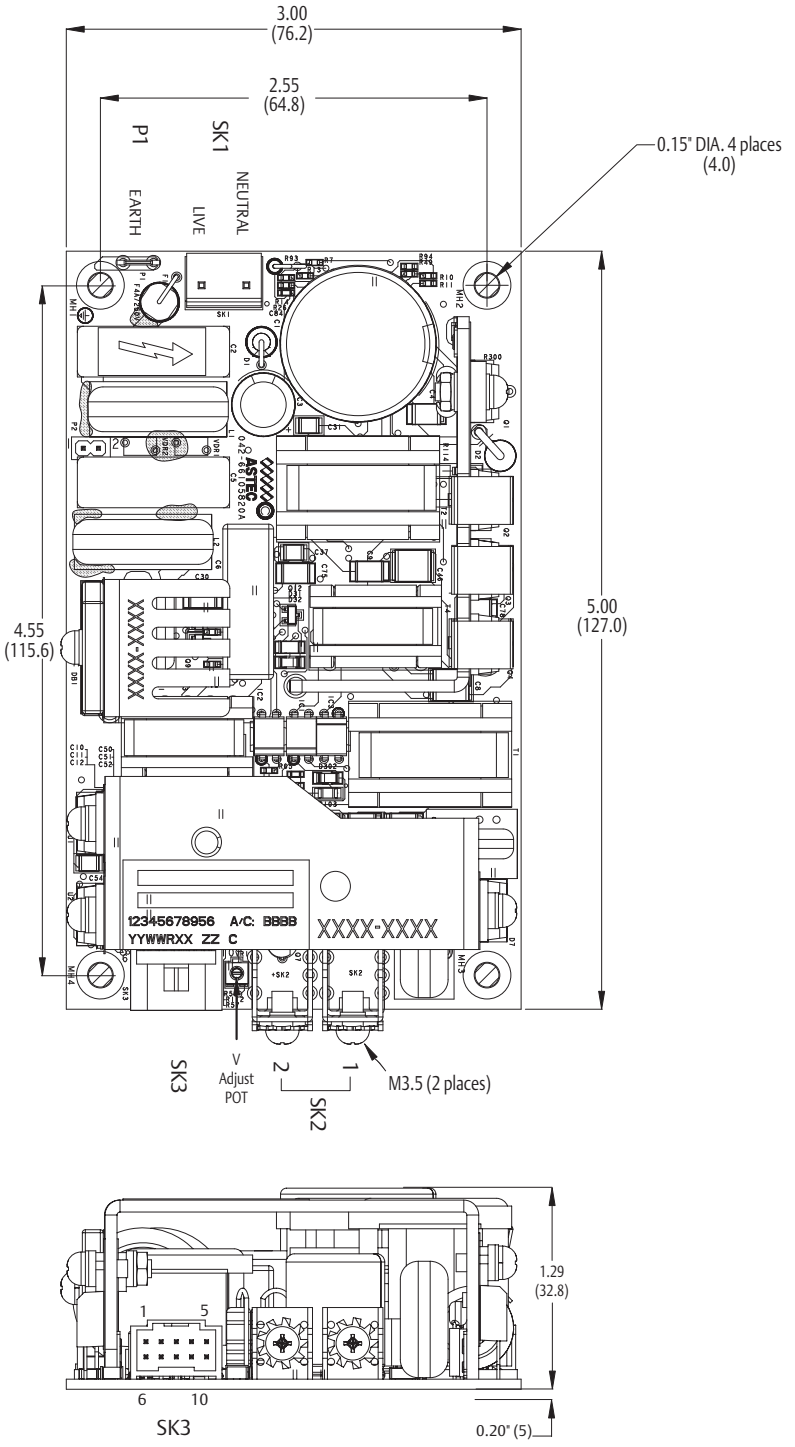
Environmental Specifications

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 30CFM Forced Air	Peak Load	Regulation[2]	Ripple P/P (PARD)[3]
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 µF (tantalum capacitor) in parallel with a 0.1 µF 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	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 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

Emerson Network Power 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 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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