

## LPT80 Series

80 Watts

**Total Power:** 55 - 85 Watts  
**Input Voltage:** 85 - 264 Vac  
120 - 370 Vdc  
**# of Outputs:** Triple



### Special Features

- Power Factor Correction
- EN61000-3-2 compliant
- Universal input
- 3" x 5" footprint
- Remote sense on outputs 1 (& 2 for LPT81)
- Power fail and remote inhibit
- Wide range adjustable on outputs 1 (& 2 for LPT81)
- Built-in Class B EMI filter
- Overvoltage protection
- Overload protection

### Safety

- **VDE** 60950
- **UL** 60950
- **CSA** 60950
- **NEMKO** 60950
- **AUSTEL** 60950
- **CB** Certificate & report
- **CE** Mark LVD

## Electrical Specifications

### Input

**Input range:** 85 - 264 Vac; 120 - 300 Vdc  
**Frequency:** 47 - 440 Hz  
**Inrush current:** < 18 A peak @ 115 Vac;  
< 36 A peak @ 230 Vac,  
cold start @ 25 °C  
**Input current:** 1.5 A max. (RMS) @ 115 Vac  
**Efficiency:** 75% 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  
**Safety ground leakage current:** < 1 mA @ 50/60 Hz, 264 Vac input

### Output

**Maximum power:** 60 W for convection (LPT81, 55 W);  
85 W with 30 CFM forced air  
**Adjustment range:** 3.3 V - 5.5 V on outputs one  
(and two 1.8 V - 3.5 V for LPT81)  
**Hold-up time:** 20 ms @ 85 W load, 115 Vac nominal line  
**Overload protection:** Short circuit protection on all outputs.  
Case overload protected @ 145% above peak rating  
**Overvoltage protection:** Tracks outputs 1 (& 2 for LPT81): 20% to 35% above output setting



### Logic Control

Power failure:	TTL logic signal goes high 100 - 500 msec after V1 output; It goes low at least 4 msec before loss of regulation
Remote inhibit:	Requires contact closure to inhibit outputs
Remote sense:	Compensates for 0.5 V lead drop min. Will operate without remote sense connected. Reverse connection protected.

## Environmental Specifications

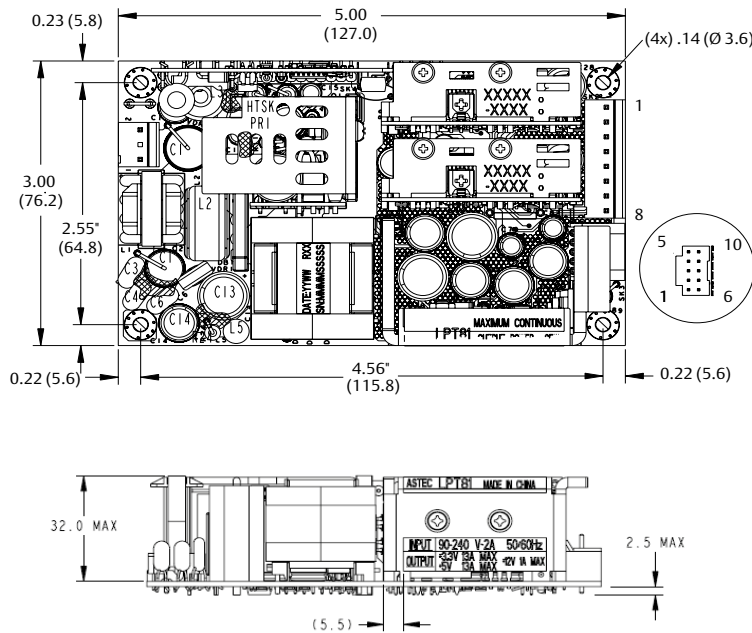
Operating temperature:	0° to 50 °C ambient; derate each output at 2.5% per degree from 50° to 70 °C
Temperature coefficient:	± 0.4% per °C
Storage temperature:	- 40° to 85 °C
Electromagnetic susceptibility:	Designed to meet IEC EN61000-4, -2, -3, -4, -5, -6, -8, -11 Level 3
Humidity:	Operating; non-condensing 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
MTBF demonstrated:	> 550,000 hours at full load and 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 <sup>1</sup>	Regulation <sup>2</sup>	Ripple P/P (PARD) <sup>3</sup>
LPT81	+3.3 V (1.8 - 3.5 V)	0.7 A	8.0 A	13 A	15 A	±2%	50 mV
	+5 V (3.3 - 5.5 V)	0.3 A	4.0 A	13 A	15 A	±2%	50 mV
	+12 V	0	0.7 A	1.0 A	1.5 A	±5%	120 mV
LPT82	+5 V (3.3 - 5.5 V)	0.7 A	8.0 A	13 A	15 A	±2%	50 mV
	+12 V	0.3 A	3.0 A	4.0 A	4.6 A	±5%	120 mV
	-12 V	0	0.7 A	1.0 A	1.5 A	±5%	120 mV
LPT83	+5 V (3.3 - 5.5 V)	0.7 A	8.0 A	13 A	15 A	±2%	50 mV
	+15 V	0.3 A	2.4 A	3.2 A	3.7 A	±5%	150 mV
	-15 V	0	0.7 A	0.7 A	1 A	±5%	150 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.
4. Minimum loads are required
5. Total current of all outputs can not exceed 21 A.

## Mechanical Drawing



## Pin Assignments

Connector	LPT81	LPT82/83	
SK1	Pin1	Neutral	Neutral
	Pin3	Line	Line
	Pin2	V1 (3.3V)	V1 (5V)
SK2	Pin1	V1 (3.3V)	V1 (5V)
	Pin2	V1 (3.3V)	V1 (5V)
	Pin3	Common	Common
	Pin4	Common	Common
	Pin5	Common	Common
SK3	Pin6	V2 (5V)	V2 (12/15V)
	Pin7	V2 (5V)	V2 (12/15V)
	Pin8	V3 (12V)	V3 (-12V/15)
SK3	Pin1	+V1 Remote sense	+V1 Remote sense
	Pin2	-V1 Remote sense	-V1 Remote sense
	Pin3	+Remote inhibit	+Remote inhibit
	Pin4	-Remote inhibit	-Remote inhibit
	Pin5	+Power fail	+Power fail
	Pin6	Common	Common
	Pin7	No connection	No connection
	Pin8	+V2 sense	No connection
	Pin9	-V2 sense	No connection
	Pin10	No connection	No connection

## Mating Connectors

AC Input (SK1):	Molex 09-50-8031 (USA) Molex 09-91-0300 (UK) PINS: 08-58-0111
DC Outputs (SK2):	Molex 09-50-8081 (USA) 09-91-0800 (UK) PINS: 08-58-0111
Control Signals (SK3):	Molex 90142-0010 (USA) PINS: 90119-2110 or Amp: 87977-3 PINS: 87309-8
Emerson Network Power Connector Kit #70-841-018 includes all the above.	

## Notes:

- Specifications subject to change without notice.
- All dimensions in inches (mm), tolerance is  $\pm .02$ ".
- Mounting holes M1, M2 and M3 should be grounded for EMI purposes.
- Mounting hole M1 is safety ground connection.
- Specifications are for convection rating at factory settings at 115 VAC input, 25 °C unless otherwise stated.
- Warranty: 2 year
- Weight: 0.8 lb. / 0.36 kg

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