

LPT80 Series

80 Watts

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



Rev. 6.25.12_161
LPT80 Series
1 of 3



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

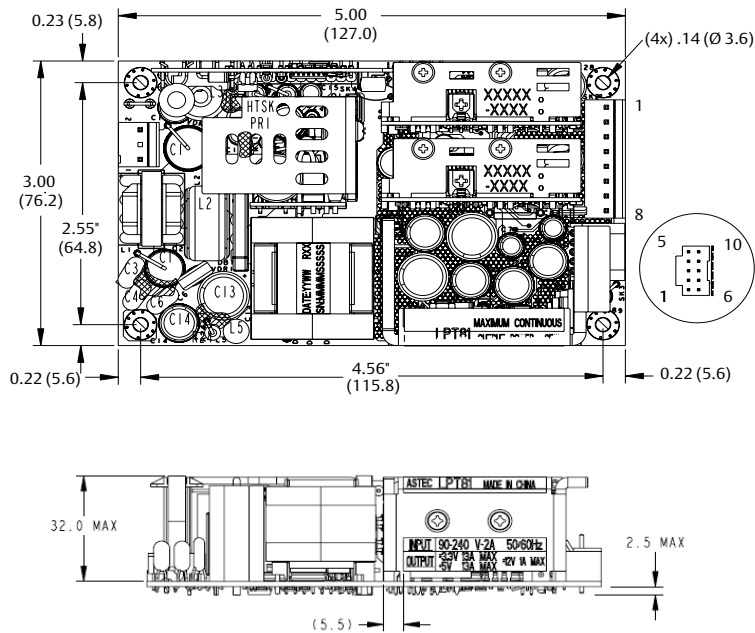
Operating temperature:	0° to 50 °C ambient; derate each output at 2.5% per degree from 50° to 70 °C
Temperature coefficient:	± 0.4% per °C
Storage temperature:	- 40° to 85 °C
Electromagnetic susceptibility:	Designed to meet IEC EN61000-4, -2, -3, -4, -5, -6, -8, -11 Level 3
Humidity:	Operating; non-condensing 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 ¹	Regulation ²	Ripple P/P (PARD) ³
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
	Pin3	Line
	Pin5	Line
SK2	Pin1	V1 (3.3V)
	Pin2	V1 (3.3V)
	Pin3	Common
	Pin4	Common
	Pin5	Common
	Pin6	V2 (5V)
	Pin7	V2 (5V)
	Pin8	V3 (12V)
SK3	Pin1	+V1 Remote sense
	Pin2	-V1 Remote sense
	Pin3	+Remote inhibit
	Pin4	-Remote inhibit
	Pin5	+Power fail
	Pin6	Common
	Pin7	No connection
	Pin8	+V2 sense
	Pin9	-V2 sense
	Pin10	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

Americas

5810 Van Allen Way
Carlsbad, CA 92008
USA
Telephone: +1 760 930 4600
Facsimile: +1 760 930 0698

Europe (UK)

Waterfront Business Park
Merry Hill, Dudley
West Midlands, DY5 1LX
United Kingdom
Telephone: +44 (0) 1384 842 211
Facsimile: +44 (0) 1384 843 355

Asia (HK)

14/F, Lu Plaza
2 Wing Yip Street
Kwun Tong, Kowloon
Hong Kong
Telephone: +852 2176 3333
Facsimile: +852 2176 3888

For global contact, visit:

www.PowerConversion.com

techsupport.embeddedpower@emerson.com

While every precaution has been taken to ensure accuracy and completeness in this literature, Emerson Network Power assumes no responsibility, and disclaims all liability for damages resulting from use of this information or for any errors or omissions.

Emerson Network Power.

The global leader in enabling business-critical continuity.

- AC Power
- Connectivity
- DC Power
- Embedded Computing
- Embedded Power
- Monitoring
- Outside Plant
- Power Switching & Controls
- Precision Cooling
- Racks & Integrated Cabinets
- Services
- Surge Protection

EmersonNetworkPower.com

Emerson and the Emerson Network Power logo are trademarks of Emerson Electric Co. ©2012 Emerson Electric Co. All rights reserved.