

Embedded Power for Business-Critical Continuity

LPS25 Series

25 Watts

Total Power: 25-40 Watts
Input Voltage: 85-264 VAC
 120-300 VDC
of Outputs: Single



Rev. 02.05.07
 LPS25 Series
 1 of 3

Special Features

- Universal input
- 3" x 5" footprint
- Less than 1U high
- Remote sense
- Terminal block option (-T)
- Built-in EMI filter
- Low output ripple
- Adjustable output
- Overvoltage protection
- Overload protection
- 110 KHz switching frequency
- LPX40 enclosure kit available
- 2 year warranty

Safety

VDE 0805 EN60950
 11774-3336-1241
 (LC#84936)
UL UL60950 E132002
CSA CSA 22.2-234 Level 3
 LR53982C
NEMKO EN 60950/EMKO-TUE
 P95100442 (74-sec) 203
 Certificate and report
 1577, 1578, 1579, 1580

Electrical Specifications

Input

Input range	85-264 VAC; 120-300 VDC
Frequency	47-440 Hz
Inrush current	<15A peak @ 115VAC; <30A peak @ 230VAC, cold start @ 25°C
Input current	1A max. (RMS) @ 115VAC
Efficiency	70% typical at full load
EMI filter	FCC Class B conducted; CISPR 22 Class B conducted; EN55022 Class B conducted
Safety ground leakage current	<0.5 mA @ 50/60 Hz, 264 VAC input

Output

Maximum power	25 W for convection; 40W with 30CFM forced air
Adjustment range	-5, +10% minimum
Hold-up time	20 ms @ 25W load, 115VAC nominal line
Overload protection	Short circuit protection on all outputs Case overload protected @ 110-145% above peak rating
Overvoltage protection	5V output; 5.7 to 6.7VDC. Other outputs 10% to 25% above nominal output
Remote sense	Compensates for 0.5 V lead drop minimum Will operate without remote sense connected Reverse connection protected



Environmental Specifications

Operating temperature: 0° to 50°C ambient. Derate each output 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 IEC 801, -2, -3, -4, -5, -6, Level 3

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

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

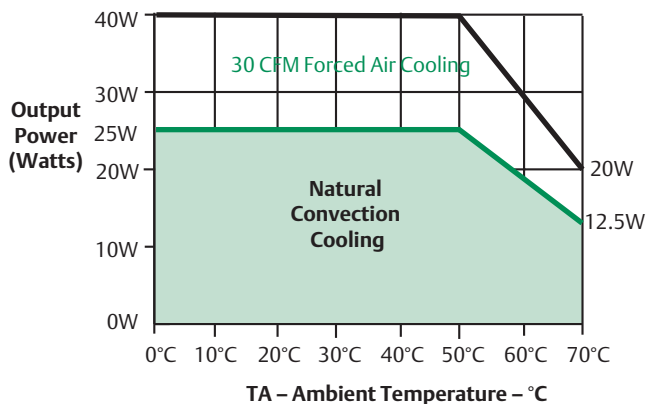
MTBF demonstrated: >550,000 hours at full load and 25°C ambient conditions

Ordering Information

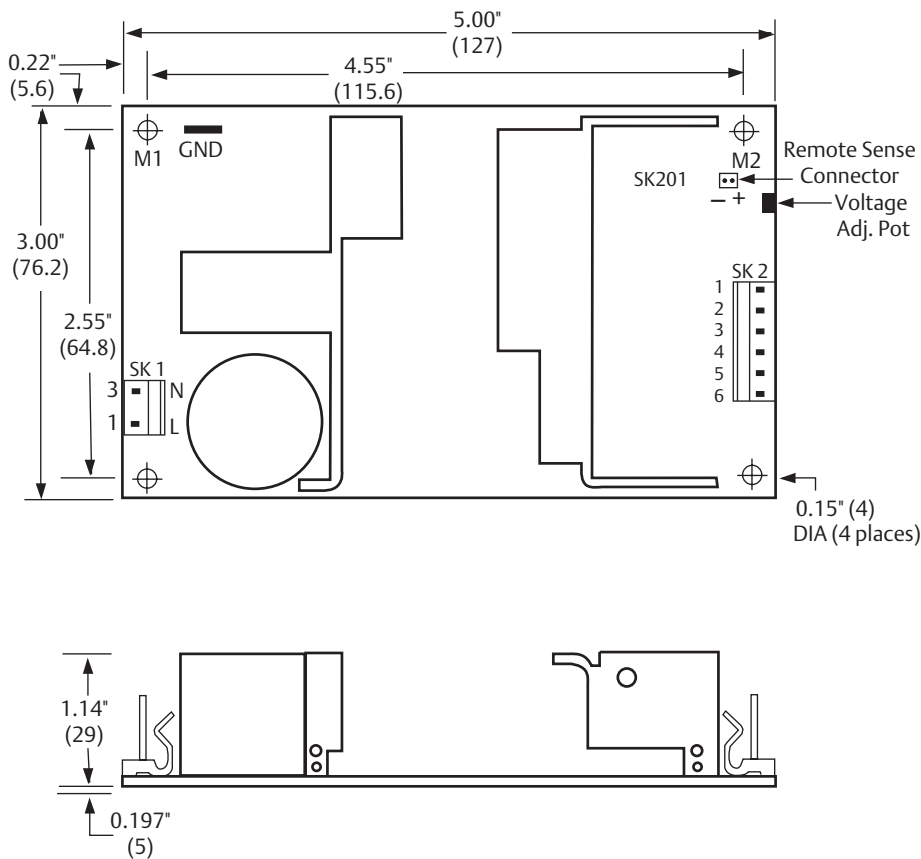
Model Number	Output Voltage	Minimum Load	Maximum Load with Convection Cooling	Maximum Load with 30CFM Forced Air	Peak Load ¹	Regulation ²	Ripple P/P (PARD) ³
LPS22(-T)	5V	0A	5A	8A	9A	±2%	50 mV
LPS23(-T)	12V	0A	2.1A	3.3A	3.7A	±2%	120 mV
LPS24(-T)	15V	0A	1.7A	2.7A	3A	±2%	150 mV
LPS25(-T)	24V	0A	1.1A	1.8A	1.9A	±2%	240 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. (-T) indicates Terminal Block option for input and output (instead of Molex type)

Power Derating Curve



Mechanical Drawing



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Pin Assignments

Connector	LPS22	LPS23	LPS24	LPS25
SK1-1	Line	Line	Line	Line
SK1-3	Neutral	Neutral	Neutral	Neutral
SK2-1	+5 V	+12 V	+15V	+24V
SK2-2	+5 V	+12 V	+15V	+24V
SK2-3	+5 V	+12 V	+15V	+24V
SK2-4	Common	Common	Common	Common
SK2-5	Common	Common	Common	Common
SK2-6	Common	Common	Common	Common
SK201-1	+Sense	+Sense	+Sense	+Sense
SK201-2	-Sense	-Sense	-Sense	-Sense

Mating Connectors

AC Input: Molex 09-50-8031 (USA) **Not required for (-T) option**
09-91-0300 (UK)
PINS: 08-52-0113

DC Outputs: Molex 09-50-8061 (USA) **Not required for (-T) option**
09-91-0600 (UK)
PINS: 08-52-0113

Remote Sense: Molex 22-01-2025
PINS: 08-52-0123

Astec Connector Kit #70-841-006, includes all of the above

- Specifications subject to change without notice.
- All dimensions in inches (mm), tolerance is ± 0.02 " (± 0.5 mm)
- Mounting holes M1 and M2 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: 0.5lbs/0.23kg

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