

LPS50-M Series

60 Watts

Total Power: 55 - 60 Watts
Input Voltage: 90 - 264 VAC
127 - 300VDC
of Outputs: Single



Special Features

- Medical Safety Approvals
- Universal input
- Less than 1U high
- Terminal block option (-T)
- 2" x 4" footprint
- Remote sense
- Overload and short circuit protection
- Adjustable Output Voltage
- High efficiency
- High MTBF
- Built in EMI filter (CISPR 22 Class B)
- LED power good indicator
- Input power <74 watts
- Complies with EN61000-3-2
- UL Class I approved
- UL Class II available, consult factory

Electrical Specifications

Input

Input range	90 - 264 VAC (wide range) 127 - 300VDC
Frequency	47-440 Hz
Inrush current	<60A peak @ 230VAC, cold start @ 25°C
Input power	<74 Watts
Efficiency	80% - 85% typical at full load
EMI/RFI	FCC Class B conducted; CISPR22 Class B conducted; EN55022 Class B conducted; VDE0878PT3 Class B conducted.
Safety ground leadage current	275 uA @ 50/60 Hz, 264 VAC input

Output

Maximum power	60W for convection (LPS52, 55W)
Adjustment range	±20% minimum
Hold-up time	10/20 ms 115/230 VAC Input line
Overload protection	Short circuit protection on all outputs. Case overload protected @ 110-160% of normal rating
Overvoltage protection	30-50% above nominal output
Remote sense	Compensates for 0.5 V lead drop max. Will operate without remote sense connected. Reverse connection protected.

Safety

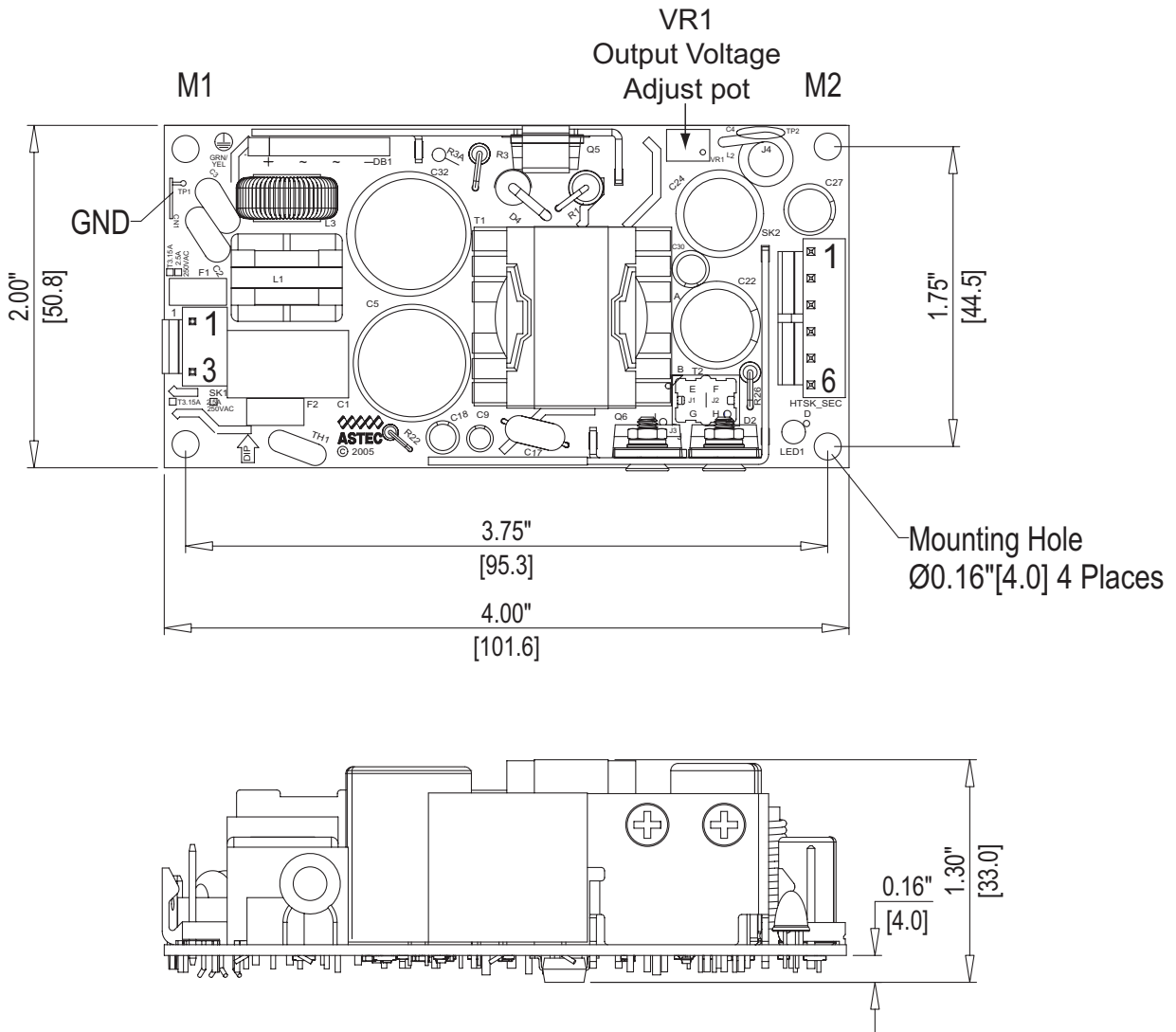
UL	UL 60601-1
CSA	CSA-C22.2 No. 601.1-M90
VDE	EN60601-1
CE	LVD & EMC



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	Peak Load	Regulation ²	Ripple P/P (PAR) ³
LPS52-M(T)	5V	0A	11A	12A	±2%	50mV
LPS53-M(T)	12V	0A	5A	5.4A	±2%	120mV
LPS54-M(T)	15V	0A	4A	4.4A	±2%	150mV
LPS55-M(T)	24V	0A	2.5A	2.75A	±2%	240mV
LPS58-M(T)	48V	0A	1.25A	1.35A	±2%	480mV

1. Peak current lasting <15 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. (T) Indicates Terminal Block option for input and output (instead of Molex type).

Pin Assignments

Connector	LPS52-M	LPS53-M	LPS54-M	LPS55-M	LPS58-M
SK1-1	Line	Line	Line	Line	Line
SK1-3	Neutral	Neutral	Neutral	Neutral	Neutral
SK2-1	+5 V	+12 V	+15V	+24V	+48
SK2-2	+5 V	+12 V	+15V	+24V	+48
SK2-3	Common	Common	Common	Common	Common
SK2-4	Common	Common	Common	Common	Common
SK2-5	-Sense	-Sense	-Sense	-Sense	-Sense
SK2-6	+Sense	+Sense	+Sense	+Sense	+Sense

Mating Connectors (Not required for T models)

AC Input: Molex 09-50-8031 (USA)
09-91-0300 (UK)
PINS: 08-52-0113

DC Outputs: Molex 09-50-8061 (USA)
09-91-0600 (UK)
PINS: 08-52-0113

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

Notes:

1. Specifications subject to change without notice.
2. All dimensions in inches (mm), tolerance is ±.02" (±0.5mm)
3. Mounting holes M1 and M2 should be grounded for EMI purposes.
4. Mounting hole M1 is safety ground connection.
5. Specifications are for convection rating at factory settings at 115 VAC input, 25°C unless otherwise stated.
6. Warranty: 1 year
7. Weight: .41lbs/.18kg

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