

LPT50-M Series

55 Watts

Data Sheet

Total Power: 47 - 55 Watts
Input Voltage: 90 - 264 VAC
 127 - 300 VDC
of Outputs: Triple

SPECIAL FEATURES

- Medical Safety Approvals
- Universal input
- 2" x 4" footprint
- Less than 1U high
- Overpower and short circuit protection
- 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
- 85 kHz switching frequency
- Dual AC fuses
- UL Class I approved
- LPX50 enclosure kit available

SAFETY

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



Electrical Specifications

Input	
Input range:	90 - 264 VAC (wide range) 127-300 Vdc
Frequency:	47-440 Hz
Inrush current:	< 60 A peak @ 230 VAC, cold start @ 25 °C
Efficiency:	80% typical at full load
EMI/RFI:	FCC Class B conducted; CISPR 22 Class B conducted; EN55022 Class B conducted, EN60601-1-2
Safety ground leakage current:	275uA @ 50/60 Hz; 264 VAC input
Output	
Maximum power:	55 W for convection (LPT51, 47.4 W)
Hold-up time:	10/ 20 ms 115/230 VAC input line
Overpower protection:	Short circuit protection on all outputs. Case overpower protected @ 110-160% of normal rating
Overvoltage protection:	30-50% above nominal output

Environmental Specifications

Operating temperature:	0° to 50 °C ambient. Derate each output as 2.5% per degree from 50° to 70 °C. -20 °C startup
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

Ordering Information

Model Number	Output Voltage	Minimum Load	Maximum Load with Convection Cooling	Peak Load ¹	Regulation ²	Ripple P/P (PARD) ³
LPT51-M	+3.3 V	0.8 A	8 A	9 A	±2%	50 mV
	+5 V	0.1 A	3 A	4 A	±6%	50 mV
	+12 V	0 A	0.5 A	1 A	±5%	120 mV
LPT52-M	+5 V	0.5 A	8 A	9 A	±2%	50 mV
	+12 V	0.1 A	3 A	4 A	±5%	120 mV
	-12 V	0 A	0.5 A	1 A	±5%	120 mV
LPT53-M	+5 V	0.5 A	8 A	9 A	±2%	50 mV
	+15 V	0.1 A	2.4 A	3.2 A	±5%	150 mV
	-15 V	0 A	0.5 A	0.7 A	±5%	150 mV
LPT54-M	+5 V	0.5 A	8 A	9 A	±2%	50 mV
	+24 V	0.1 A	1.5 A	2 A	±7%	240 mV
	+12 V	0 A	0.5 A	0.7 A	±5%	120 mV

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.

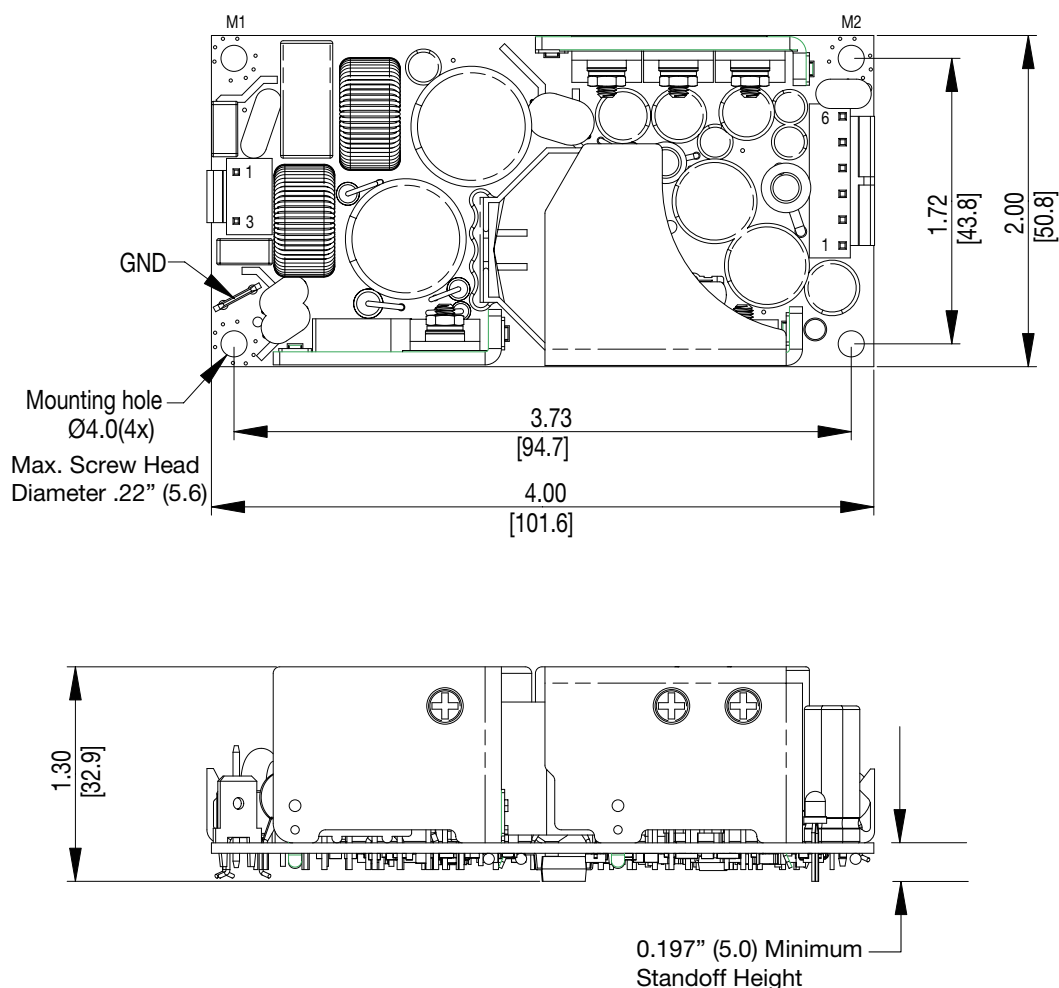
Pin Assignments

Connector	LPT51-M	LPT52-M	LPT53-M	LPT54-M
SK1-1	Line	Line	Line	Line
SK1-3	Neutral	Neutral	Neutral	Neutral
SK2-1	+3.3 V	+5 V	+5 V	+5 V
SK2-2	+3.3 V	+5 V	+5 V	+5 V
SK2-3	Common	Common	Common	Common
SK2-4	Common	Common	Common	Common
SK2-5	+12 V	-12 V	-15 V	+12 V
SK2-6	5 V	+12 V	+15 V	+24 V

Mating Connectors

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
Artesyn Embedded Technologies Connector Kit #70-841-006, includes all of the above	

Mechanical Drawing



Notes:

1. Specifications subject to change without notice.
2. All dimensions in inches (mm), tolerance is $\pm 0.02'' (\pm 0.5\text{mm})$
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: 2 year
7. Weight: 0.45 lbs/0.20 kg

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