# **LPS170-M Series**

## Medical 175 Watts

**Total Power:** 100 - 175 Watts **Input Voltage:** 85-264 VAC 120-300 VDC

# of Outputs: Single



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# Special Features

- Medical safety approvals
- Active power factor correction
- IEC EN61000-3-2 compliance
- Wide Range Adjustable output Remote sense on main output
- Single wire current sharing
- Power fail and remote inhibit
- Built-in EMI filter
- Low output ripple
- Overvoltage protection
- Overload protection
- Thermal overload protection
- DC power good
- 5 V standby output
- 12 V Aux output
- Optional cover (-C suffix)

## Safety

• **VDE** 0750/EN60601-1

(IEC601)
• **UL** UL2601

• **CSA** CSA 22.2 No. 601.1

• **CE** Mark (LVD)

# **Electrical Specifications**

Input

Input range: 85-264 VAC; 120-300 VDC

Frequency: 47-67 Hz

Inrush current: 38 A max, cold start @ 25 °C
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

Power Factor: 0.99 typical

Safety ground <250 µA @ 50/60 Hz, 264 VAC inputS

leakage current:

Output

Maximum power: 110 W convection (75 W with cover)

175 W with 30 CFM forced air

(130 W with cover)

Adjustment range: 2:1 wide ratio minimum Standby outputs: 5 V @ 2 A regulated ±5%

Hold-up time: 20 ms @175 W load at nominal line
Overload protection: Short circuit protection on all outputs.

Case overload protected @ 110-145% above peak rating

Overvoltage protection: 10% to 40% above nominal output

Aux output: 12 V @ 1 A -5 %, +10%





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# Logic ControlPower failure:TTL logic signal goes high 100 - 500 msec after V1 output; It goes low at least 4 msec before loss of regulationRemote inhibit:Requires contact closure to inhibit outputsRemote sense:Compensates for 0.5 V lead drop min. Will operate without remote sense connected. Reverse connection protected.DC - OK:TTL logic signal goes high after main output is in regulation. It goes low when there is a loss of regulation

# **Environmental Specifications**

Operating temperature: 0° to 50 °C ambient;

derate each output at 2.5% per degree from 50° to 70 °C

Low temperature start: -20 °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 0.75G 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 <sup>1</sup>	Regulation <sup>2</sup>	Ripple P/P (PARD) <sup>3</sup>	
LPS172-M	5 V (2.5 - 6 V)	0 A	22 A	35 A	38 A	±2%	50 mV	
LPS173-M	12 V (6 - 12 V)	0 A	9.1 A	15 A	16.5 A	±2%	120 mV	
LPS174-M	15 V (12 - 24 V)	0A	7.3 A	12 A	13.2 A	±2%	<1%	
LPS175-M	24 V (24 - 54 V)	0A	4.5 A	7.5 A	8.2 A	±2%	<1%	

- 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  $\mu F$  in parallel with a 0.1  $\mu F$  capacitor at rated line voltage and load ranges.
- 4. Remote inhibit resets OVP latch.

Note: -C suffix added to the model number indicates cover option.

#### Notes

- 1. Specifications subject to change without notice.
- 2. All dimensions in inches (mm), tolerance is ±0.02".
- 3. Specifications are for convection rating at factory settings unless otherwise stated.
- 4. Mounting screw maximum insertion depth is 0.12".
- 5. Warranty: 2 year
- 6. Weight: 1.8 lb / 0.85 kg

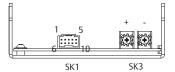
Pin Assignments						
Connector	LPS17x					
SK1	PIN 1	+12 V				
	PIN 2	5 V Standby				
	Pin 3	Common				
	Pin 4	V1 SWP				
	PIN 5	Common				
	PIN 6	+V1 sense				
	PIN 7	Sense common				
	PIN 8	Remote inhibit				
	PIN 9	DC poer good				
	PIN 10	POK				
SK2	TB-1	COMMON				
	TB-2	Main output				
SK3	PIN 1	GROUND				
	PIN 2	LINE				
	Pin 5	NEUTRAL				

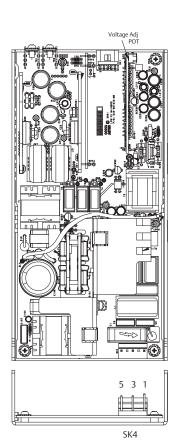
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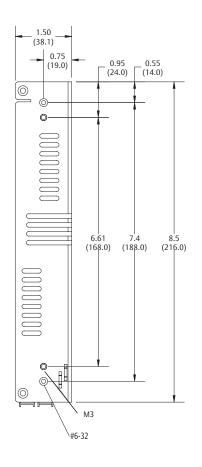
Emerson Network Power Connector Kit #70-841-016

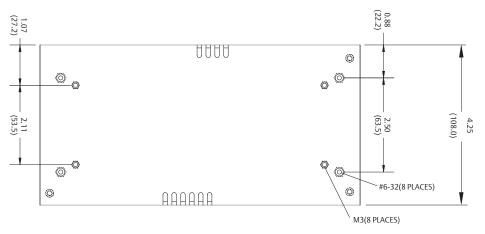
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## Mechanical Drawing









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