

# 175 Watts

## LPS170-M Series

### MEDICAL



**Total Power:** 110-175 Watts  
**Input Voltage:** 85-264 VAC  
 120-300 VDC  
**# of Outputs:** Single

#### Electrical Specs

##### Input

Input range	85-264 VAC, 120-300 VDC
Frequency	47-63 Hz
Inrush current	38 A max, cold start @ 25°C
Efficiency	75% typical at full load
EMI filter	Meets FCC Class A conducted CISPR 22 Class A conducted EN55022 Class A conducted VDE 0878 PT3 Class A conducted
Power factor	0.99 typical
Safety ground leakage current	<250 µA @ 50/60 Hz, 264 VAC inputs

##### 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
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
Standby output	5 V @ 2A regulated ±5%
Aux output	12 V @ 1 A -5 %, +10%

##### 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.
DC Ok	TTL logic signal goes high after main output is in regulation. It goes low when there is a loss of regulation

#### 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)

#### Environmental

Operating temperature: 0° to 50°C ambient derate each output at 2.5% per degree from 50° to 70°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

Storage temperature: -40° to 85°C

Temperature coefficient: ± .04% per °C

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

#### Safety

VDE	0750/EN60601-1 (IEC601)
UL	UL2601
CSA	CSA 22.2 No. 601.1
CE	Mark (LVD)

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## ASIA

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Hong Kong  
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## Ordering Information

Model Number	Output Voltage	Minimum Load	Maximum Load with Convection Cooling	Maximum Load with 30 CFM Forced Air	Peak Load	Regulation <sup>2</sup>	Ripple P/P(PARD) <sup>3</sup>
LPS172-M	5 V (2.5-6V)	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)	0 A	7.3 A	12 A	13.2 A	±2%	<1%
LPS175-M	24 V (24-54 V)	0 A	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.

## Ordering Information

## Connector LPS17x

SK1	PIN 1	+12V
	PIN 2	5V 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 power good
	PIN 10	POK
SK3	TB-1	COMMON
	TB-2	Main output
SK4	PIN 1	GROUND
	PIN 3	LINE
	PIN 5	NEUTRAL

## Mating Connectors

(SK4) AC Input: Molex 09-50-8051 (USA)  
Molex 09-91-0500 (UK)  
PINS: 08-58-0111

(SK3) DC Output:

Molex 19141-0058

(SK1) Control Signals:

Molex 90142-0010 (USA)  
PINS: 90119-2110 or  
Amp: 87977-3  
PINS: 87309-8

Astec connector kit #70-841-016

## Notes:

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

