Embedded Power for
Business-Critical Continuity

LPS170-M Series

Medical
175 Watts

Total Power: 100 - 175 Watts
Input Voltage: 85-264 VAC
120-300 VDC
# of Outputs: Single

RoHS 2002/95/EC

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 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
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%

ASTEC

EMERSON Network Power

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

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 [1]	Regulation [2]	Ripple P/P (PARD) [3]
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 µF in parallel with a 0.1 µF 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.

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

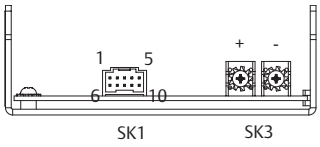
Mating Connectors

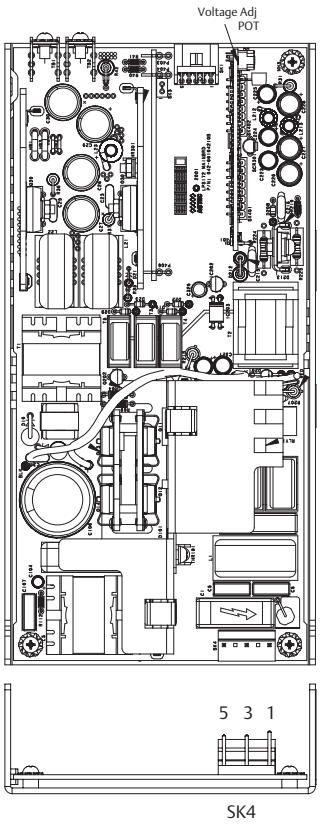
AC Input (SK4):	Molex 09-50-8051 (USA) Molex 09-91-0500 (UK) PINS: 08-58-0111
DC Outputs (SK3):	Molex 19141-0058
Control Signals (SK1):	Molex 90142-0010 (USA) PINS: 90119-2110 or Amp: 87977-3 PINS: 87309-8

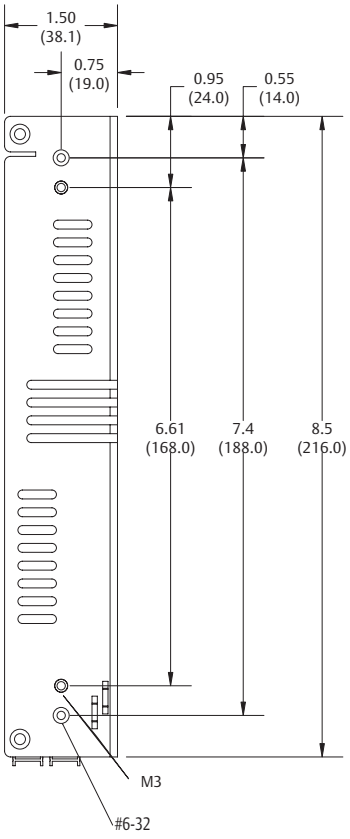
Emerson Network Power Connector Kit #70-841-016

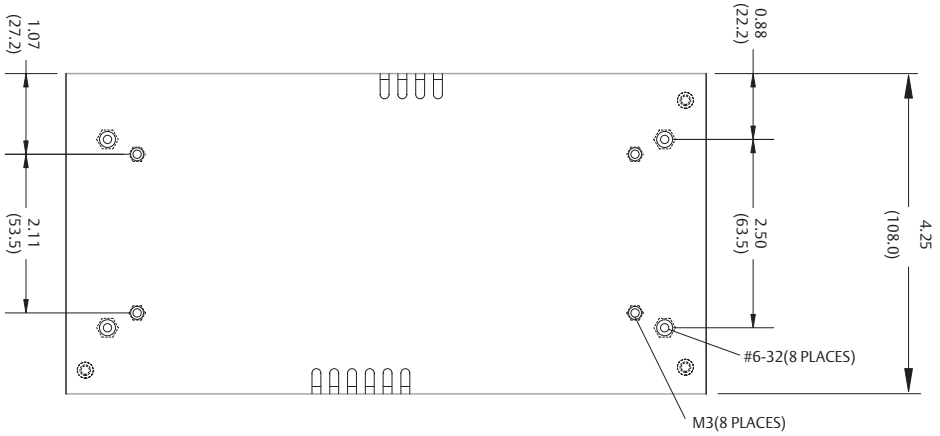
Notes:
1. Specifications subject to change without notice.
2. All dimensions in inches (mm), tolerance is ±0.02".
3. Specifications are for convection rating at factory settings unless otherwise stated.
4. Mounting screw maximum insertion depth is 0.12".
5. Warranty: 2 year
6. Weight: 1.8 lb / 0.85 kg

Mechanical Drawing









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