LPS170 Series
175 Watts

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

RoHS 2002/95/EC

Special Features

- 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** 0805/EN60950 (IEC950)
- **UL** UL1950
- **CB** Certificate and report
- **CSA** CSA 22.2-234 Level 3
- **CE** Mark (LVD)
- **NEMKO** EN 60950/EMKO-TUE

Electrical Specifications

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:	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:	1.0 mA @ 50/60 Hz, 264 VAC input
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

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 power good
	PIN 10	POK
SK2	TB-1	COMMON
	TB-2	Main output
SK3	PIN 1	GROUND
	PIN 2	LINE
	Pin 5	NEUTRAL

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

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, includes all of the above

1. Specifications subject to change without notice.
2. All dimensions in inches (mm), tolerance is ±0.02" (±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: 2 year
7. Weight: 1.8lbs/0.85kg

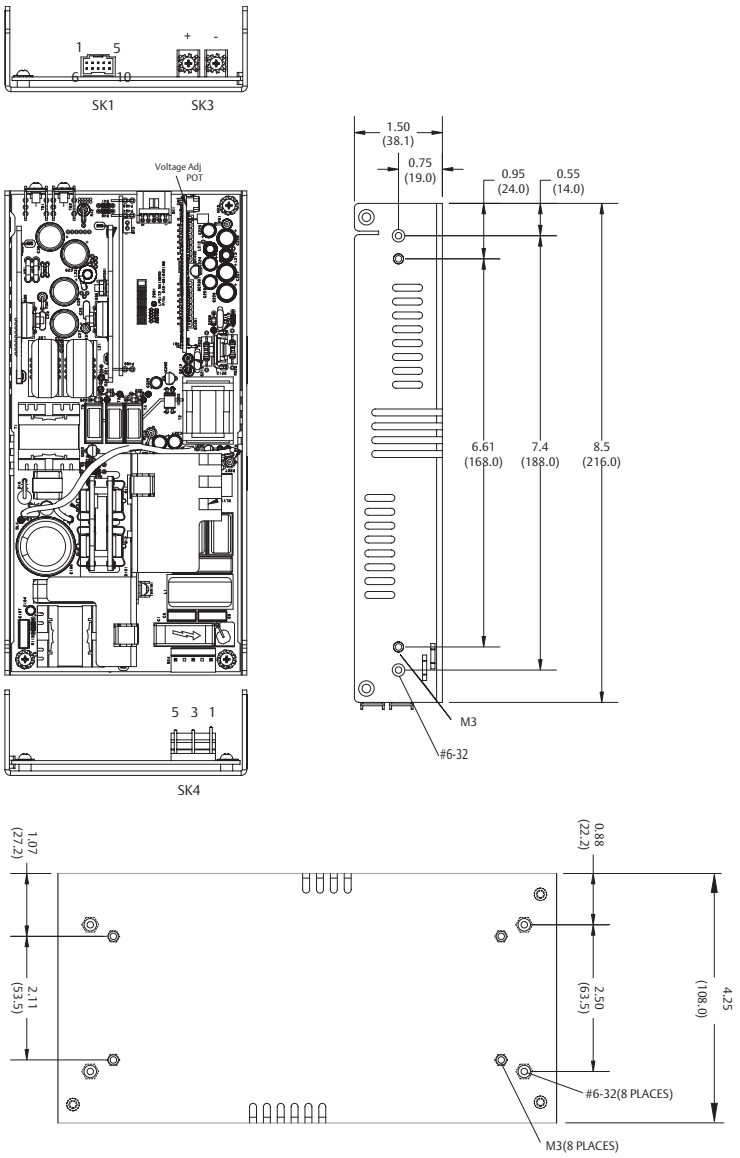
Ordering Information

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	5 V (2.5 - 6 V)	0 A	22 A	35 A	38 A	±2%	50 mV
LPS173	12 V (6 - 12 V)	0 A	9.1 A	15 A	16.5 A	±2%	120 mV
LPS174	15 V (12 - 24 V)	0A	7.3 A	12 A	13.2 A	±2%	<1%
LPS175	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.

Mechanical Drawing



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