

LPQ200-M Series

200 Watts

Total Power: 100 - 200 Watts
Input Voltage: 90 - 264 Vac
of Outputs: Quad



Special Features

- Medical and ITE safeties
- Active power factor correction
- 3" x 5" footprint
- Less than 1U high
- EN61000-3-2 compliant
- Remote sense
- Power fail
- Adjustable outputs
- Built-in Class B EMI filter
- Overvoltage protection
- Overload protection
- Thermal overload protection
- LPX200 enclosure kit available

Safety

- **TUV** 60950, 60601-1
- **UL** 60950, 60601-1
- **CSA** 60950, 60601-1
- **CB** Certificate & report
- **CE** Mark (LVD)

Electrical Specifications

| Input | |
|--------------------------------|---|
| Input range: | 90 - 264 Vac; 120 - 300 Vdc |
| Frequency: | 47 - 63 Hz |
| Inrush current: | 50 A max., cold start @ 25 °C, 230 Vac input |
| Efficiency: | 84% typical at full load |
| EMI/RFI: | FCC Class B conducted; CISPR22 Class B conducted; EN55022 Class B conducted; VDE0878PT3 Class B conducted |
| Safety ground leakage current: | 275 uA @ 50/60 Hz, 264 Vac input |
| Output | |
| Maximum power: | 100 W for convection ; 200 W with 30CFM forced air |
| Adjustment range: | All outputs -20%, +10%, except for the 3.3 V output which will be -15%, +10% (LPQ201-M) |
| Hold-up time: | 16 ms @ 200 W load, 120 Vac input |
| Overload protection: | Short circuit protection on all outputs. V1, V2 & V3 overload protected @ 110 - 160%. V4 is 150 - 250% above rating |
| Overvoltage protection: | 30 - 50% above nominal output on V1 (and V2 on LPQ202) |
| Logical Control | |
| Power failure: | Active low logic signal goes high 100-500 msec after main output; it goes low at least 6 msec before loss of regulation |
| Remote sense: | Compensates for 0.5 V lead drop min. Will operate without remote sense connected. Reverse connection protected. |

Environmental Specifications

| | |
|---------------------------------|--|
| Operating temperature: | 0° to 50 °C ambient derate each output as 2.5% per degree from 50° to 70 °C. -20 °C start up |
| 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 90% RH, non-operating, non-condensing 10 - 95% |
| Vibration: | IEC68-2-6 to the levels of IEC721-3-2 |
| MTBF calculated: | 516,000 hours at full load and 25 °C ambient conditions. 230 Vac input, Bellcore |

Ordering Information

| Model Number | Output Voltage | Minimum Load | Maximum Load with Convection Cooling | Maximum Load with 30CFM Forced Air | Peak Load | Regulation ² | Ripple P/P (PARD) ³ |
|--------------|----------------|--------------|--------------------------------------|------------------------------------|-----------|-------------------------|--------------------------------|
| LPQ201-M | +3.3 V | 0 A | 13 A | 18 A | 20 A | ± 2% | 50 mV |
| | +5 V | 0 A | 13 A | 18 A | 20 A | ± 5% | 50 mV |
| | +12 V | 0 A | 5 A | 9 A | 10 A | ± 5% | 120 mV |
| | -12 V | 0 A | 1 A | 2 A | 2.5 A | ± 5% | 120 mV |
| LPQ202-M | +5 V | 0 A | 13 A | 18 A | 20 A | ± 2% | 50 mV |
| | +12 V | 0 A | 5 A | 9 A | 10 A | ± 5% | 120 mV |
| | +24 V | 0 A | 1.5 A | 3 A | 3.5 A | ± 7% | 240 mV |
| | -12 V | 0 A | 1 A | 2 A | 2.5 A | ± 5% | 120 mV |

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 (tantalum capacitor) in parallel with a 0.1 μF capacitor at rated line voltage and load ranges.

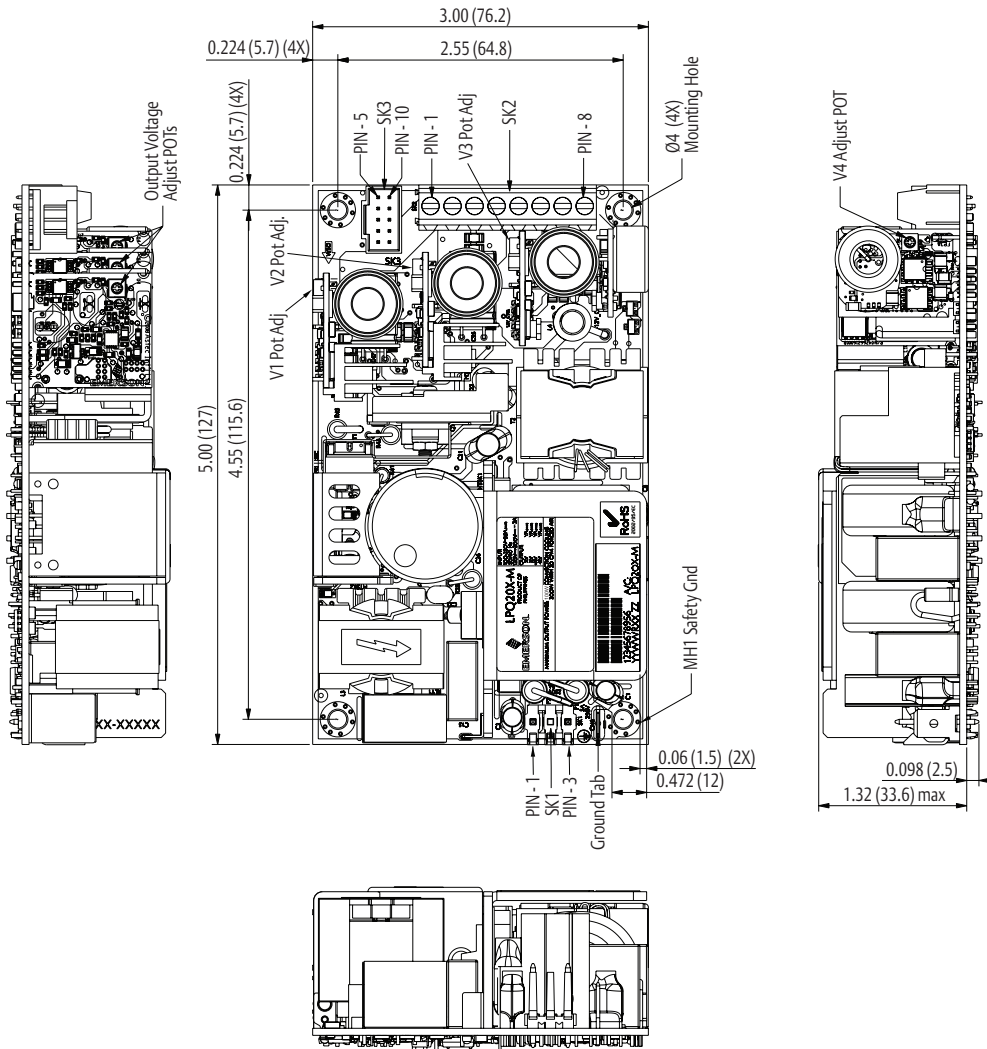
Pin Assignments

| Connector LPQ200-M | | |
|--------------------|--------|----------------------------------|
| SK1 | Pin 1 | Neutral |
| | Pin 3 | Line |
| SK2 | Pin 1 | V1 OUT |
| | Pin 2 | V2 OUT |
| | Pin 3 | GND OUT |
| | Pin 4 | GND OUT |
| | Pin 5 | GND OUT |
| | Pin 6 | GND OUT |
| | Pin 7 | V3 OUT |
| | Pin 8 | V4 OUT |
| SK3 | Pin 1 | +V1 Remote sense |
| | Pin 2 | -V1 Remote sense |
| | Pin 3 | N/C |
| | Pin 4 | N/C |
| | Pin 5 | +Power fail |
| | Pin 6 | Common |
| | Pin 7 | N/C |
| | Pin 8 | Common |
| | Pin 9 | +V2 Remote Sense (LPQ201-M only) |
| | Pin 10 | -V2 Remote Sense (LPQ201-M only) |

Mating Connectors

| | |
|--|--|
| AC Input (SK1): | Molex 09-50-8031 (connector) PINS: 08-52-0113 |
| AC Ground: | Molex 01-90020001 |
| DC Output (SK2): | Terminal block Wire size based on Cable Ampacity/AWG |
| Control Signals (SK3): | Molex 90142-0010 (USA) PINS: 90119-2110 or Amp: 87977-3 PINS: 87309-8 |
| Emerson Network Power Connector Kit #70-841-027, includes all of the above. | |
| 1. Specifications subject to change without notice. | |
| 2. All dimensions in inches (mm), tolerance is ± 0.02" (± 0.5 mm) | |
| 3. Mounting holes MH1 and MH2 should be grounded for EMI purposes. | |
| 4. Mounting hole MH1 is safety ground connection. | |
| 5. Specifications are for convection rating at factory settings at 115 VAC input, 25 °C unless otherwise stated. | |
| 6. This power supply requires mounting on metal standoffs 0.20" (5 m) in height. | |
| 7. Warranty: 2 years | |
| 8. Weight: 1.5 lbs/0.68 kg | |

Mechanical Drawing



Americas

5810 Van Allen Way
Carlsbad, CA 92008
USA
Telephone: +1 760 930 4600
Facsimile: +1 760 930 0698

Europe (UK)

Waterfront Business Park
Merry Hill, Dudley
West Midlands, DY5 1LX
United Kingdom
Telephone: +44 (0) 1384 842 211
Facsimile: +44 (0) 1384 843 355

Asia (HK)

14/F, Lu Plaza
2 Wing Yip Street
Kwun Tong, Kowloon
Hong Kong
Telephone: +852 2176 3333
Facsimile: +852 2176 3888

For global contact, visit:

www.Emerson.com/EmbeddedPower
techsupport.embeddedpower@emerson.com

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Как с нами связаться

Телефон: 8 (812) 309 58 32 (многоканальный)

Факс: 8 (812) 320-02-42

Электронная почта: org@eplast1.ru

Адрес: 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.