

## POE Series



- Compact 2" x 4" x 1.2" Size
- Power Over Ethernet Compatible
- High Power Density – 10.4 W/in<sup>3</sup>
- Level B Conducted Emissions
- EN61000-3-2, -3 Compliant
- Fits 1U Applications
- Convection-cooled & Fan-cooled Ratings

## Specification

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### Input

Input Voltage	• 90-264 VAC (120-370 VDC)
Input Frequency	• 47-63 Hz; 440 Hz
Input Current	• 1.8 A max at 115 VAC • 1.1 A max at 230 VAC
Inrush Current	• 40 A max at 230 VAC
Earth Leakage Current	• <1 mA at 264 VAC/60 Hz
Input Protection	• Internal 3.15 A fuse in line and neutral

### Output

Output Voltage	• See table
Output Voltage Trim	• ±5%
Initial Set Accuracy	• ±1.0%
Minimum Load	• No minimum load required
Start Up Delay	• 2 s max
Start Up Rise Time	• 50 ms
Hold Up Time	• 16/75 ms min at 115/230 VAC
Line Regulation	• ±0.5%
Load Regulation	• ±1%
Over/Undershoot	• None at turn on/off
Transient Response	• 4% max. deviation, recovery to within 1% in 500 μs for a 50-75-50% load change
Ripple & Noise	• 1% pk-pk, 20 MHz bandwidth
Overvoltage Protection	• 115-135% Vnom, recycle input to reset
Overload Protection	• 110-150% on primary power limit, auto recovery
Short Circuit Protection	• Trip and restart (Hiccup mode)
Temperature Coefficient	• 0.05%/°C

### General

Efficiency	• Typically 85%
Isolation	• 4000 VAC Input to Output • 1500 VAC Input to Ground • 1500 VAC Output to Ground
Switching Frequency	• 55 kHz typical
Power Density	• 10.4 W/in <sup>3</sup>
MTBF	• 250 kHrs per MIL-HDBK-217F

### Environmental

Operating Temperature	• 0 °C to +70 °C. Refer to derating curves for specific operating limitations.
Cooling	• Convection & fan-cooled ratings (see derating curves)
Operating Humidity	• 95% RH, non-condensing
Storage Temperature	• -40 °C to +85 °C
Operating Altitude	• 3000 m
Shock	• 30 g pk, half sine, 6 axes
Vibration	• 2 g rms, 5 Hz to 500 kHz, 3 axes

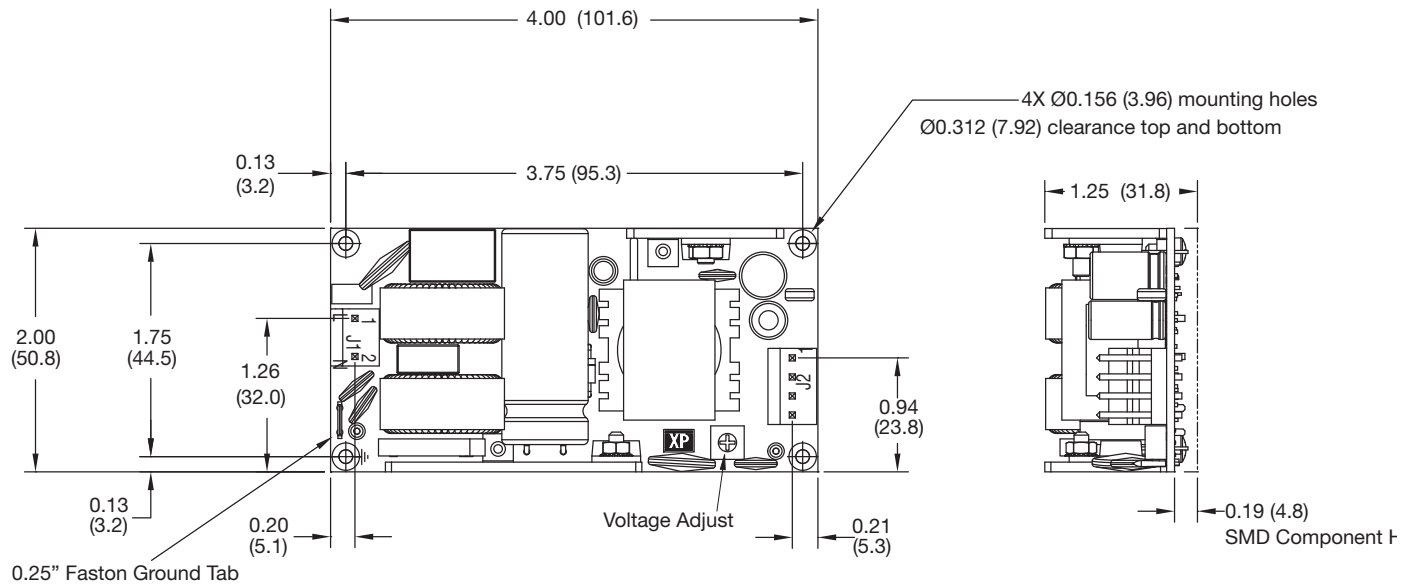
### EMC & Safety

Emissions	• EN55022 & EN55011, level B conducted
Harmonic Currents	• EN61000-3-2
Voltage Flicker	• EN61000-3-3
ESD Immunity	• EN61000-4-2, level 2 Perf Criteria A
Radiated Immunity	• EN61000-4-3, level 3 Perf Criteria A
EFT/Burst	• EN61000-4-4, level 3 Perf Criteria A
Surge	• EN61000-4-5, installation class 3 Perf Criteria A
Conducted Immunity	• EN61000-4-6, level 3 Perf Criteria A
Dips & Interruptions	• EN61000-4-11, 30% 10 ms, 60% 100 ms, 100% 5000 ms Perf Criteria A, B, B
Safety Approvals	• UL60950-1

Models and Ratings

Max Power	Output Voltage	Output Current	Model Number
100 W	+56 V	1.8 A	POE100US56

Mechanical Details



Input Connector J1	
Pin 1	Line
Pin 2	Neutral
0.25" Faston	Earth

J1 mates with  
Molex housing 09-50-1031 &  
Molex series 5194 crimp terminals

Output Connector J2	
Pin 1	+Vout
Pin 2	+Vout
Pin 3	-Vout
Pin 4	-Vout

J2 mates with  
Molex housing 09-50-1041 &  
Molex series 5194 crimp terminals

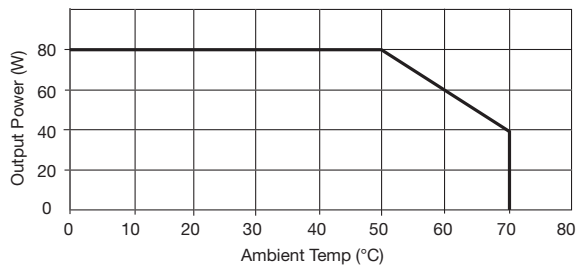
Weight: approx. 0.39 lb (175 g)

Notes

1. All dimensions in inches (mm). Tolerance .xx = ±0.02 (0.50); .xxx = ±0.01 (0.25)

Derating Curves

Convection-cooled



Fan-cooled with 10 CFM

