

Introduction

This document provides a product overview of the N2Power XL250-J power supply, which is a high-efficiency line-switching AC to DC power supply with universal AC input power and Power-Factor-Correction (PFC) to reduce input current and harmonic distortion on the AC line.

The XL250-J provides 5 DC output voltages that may be turned on or off remotely. The sixth output, 5-volts standby, is available as long as AC power is supplied and may be used to power the controls that are used to turn the main outputs on or off.

The XL250-J is a TÜV recognized component and is certified to the IEC 60065 safety standard that is recognized internationally. It also bears the CE mark. For complete product details, please contact N2Power at sales@n2power.com or 805-584-7744 x203.

AC Input Specifications

- Rated 100-240VAC, 50/60Hz
- Input Current: 3.6A at 100VAC, 1.5A at 240VAC
- Inrush current limited to 10A peak at any input voltage
- Leakage Current of 0.5mA at 240VAC, 50Hz
- Fused input
- Designed for two-wire power cord
- Meets IEC 60065 international safety standards
- Meets EN55022 CISPR22 Class B Conducted Emissions

DC Output Summary

Output	Nominal Voltage	Regulation (%)	Output Ripple+Noise	Maximum Output	Remote Sensing
V1	6.1 V	+/- 2 %	50 mV P-P	20 A	Yes
V2	3.3 V	+/- 2 %	50 mV P-P	3.0 A	Yes
V3	5.0 V	+/- 2 %	50 mV P-P	5.5 A	Yes
V4	12.0 V	+/- 10 %	120 mV P-P	4.0 A	-
V5	12.0 V	+/- 10 %	120 mV P-P	0.5 A	-
V6standby	5.0 V	+/- 5 %	50 mV P-P	0.5 A	-

Output voltages and currents can be tailored to a customer's particular needs.

Efficiency

The XL250-J is at least 85% efficient at full load at 115VAC with 5-CMF of cooling air at 50°C.

Life

The calculated MTBF of the XL250-J is equal to or greater than 120,000 hours of continuous operation at maximum output loading and worst-case input line voltage with forced-air cooling. The MTBF of the power supply is calculated with an 80% confidence level in accordance with Bellcore, TR-332, Issue 6. Actual failure rates vary from unit to unit.

Cooling and Operating/Storage Temperature

The XL250-J requires a minimum of 5-CFM of airflow at no more than 50°C for cooling. An optional cover with fan is available to provide the cooling with an ambient temperature of 50°C or less. The supply operates over a temperature range of -25°C to +50°C at full load and can sustain storage temperatures within the range of -40°C to +85°C

Internal Protection

The XL250-J is internally protected from the following abnormal conditions:

- Over current on an output
- Shorted output
- Over-temperature
- Over-voltage
- Over-power (exceeds 120% of maximum output power)

Physical Dimensions

- 3.5-inches wide [89mm]
- 7.2-inches long [183mm]
- 1.5-inches tall [38mm]
- 2.0-inches tall [51mm] with optional cover and fan
- Weight: 1.75 pounds [0.8kg]

Compliance

- RoHS Compliant
- Energy Star compliant in the standby-mode

Images

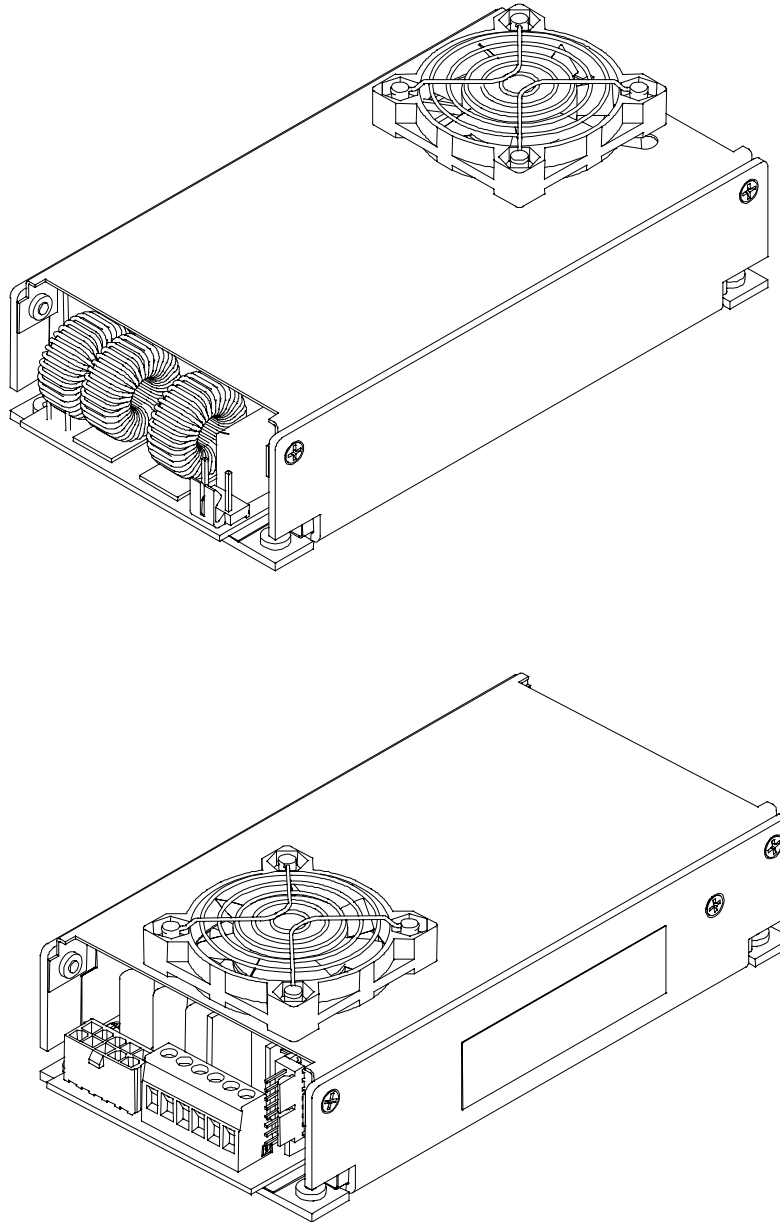


Figure 1 The XL250-J Power Supply with Optional Cover and Fan

Dimensions

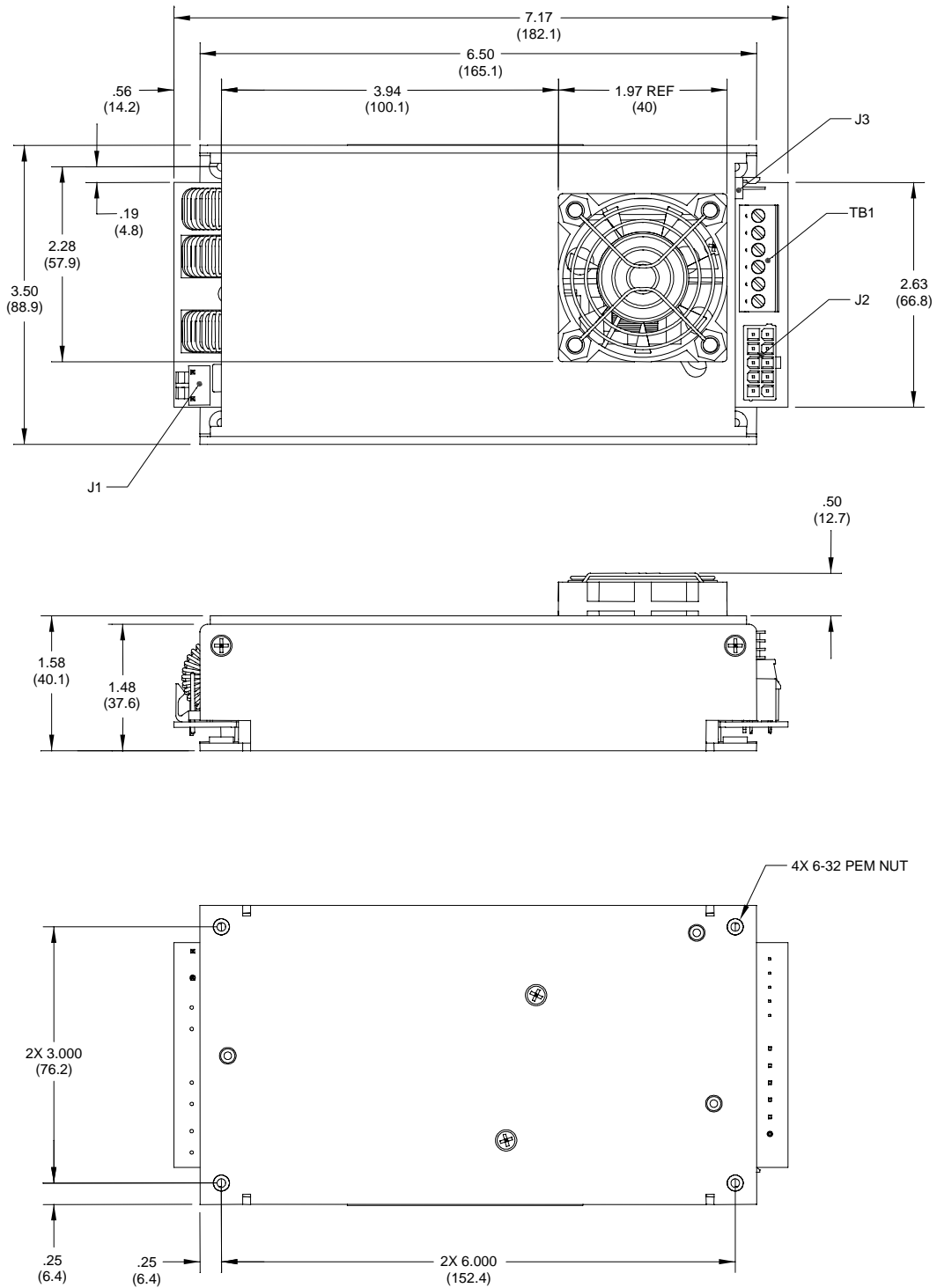


Figure 2 XL250-J Dimensions in Inches and (mm)