

N2POWER XL125 AC-DC SERIES

ULTRA SMALL, HIGH-EFFICIENCY POWER SUPPLIES

POWER SUPPLY DESIGN LEADER

N2Power continues to lead the power density race with its new small, high efficiency XL125 Series AC-DC power supplies. Our patented technology yields a very small footprint, reduces wasted power, and offers the highest power density in the market in the 125 watt range. This unique design means reduced energy costs, a greater return on your investment, higher reliability and longer product life.

HIGHLIGHTS

- 125W AC-DC
- Up to 92% Efficiency
- High Power Density: 6.7 W / cu in.
- Universal AC input
- Active PFC (90-264 VAC)
- Built in OR-ing Diodes for N+1 (Optional)
- 3" X 5" Small Footprint
- <1U High: 1.32"
- No Load Operation
- **RoHS Compliant**

HIGH EFFICIENCY IN A SMALL PACKAGE

The XL125 Series provides up to 92% efficiency in a 125 watt power supply. Our unique design reduces energy consumption and generates less waste heat. It requires little forced air cooling, decreases AC loads and increases reliability and economy of operation.

UNMATCHED POWER DENSITY

With an overall height of 1.32" and a 3" x 5" footprint. the XL125 Series boasts a power density of 6.7 watts per cubic inch. It is ideally suited for OEMs using industry standard 1U chassis. N2Power's small form factor power supplies allow you to work with additional "real estate" for more functionality inside your product. Decreased space requirements, reduced thermal loads and lower costs will increase your competitive edge in the market.

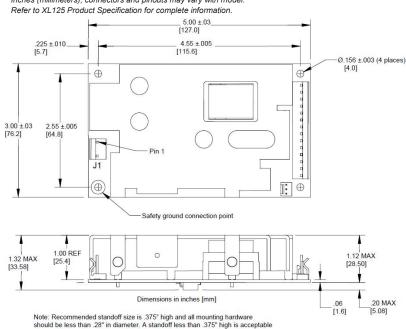
PFC READY, SAVE ENERGY

Many countries require Power Factor Corrected (PFC) power supplies, which lessen loads at generating stations. All XL125 products incorporate active PFC technology with universal input to provide superior efficiency in each supply. Comparisons of power loading show that our supplies can reduce consumption up to 50%.



Typical Mechanical Drawing:

Inches (millimeters), connectors and pinouts may vary with model.



REPEATABLE QUALITY

applicable UL standard for clearance requirements)

We use advanced PCB technology to deliver the highest density and best performance in the industry. Our packaging design incorporates SMT technology to automate processes, ensure reliability, and reduce cost. Each power supply undergoes a complete functional test and a multi-hour burn-in to insure that every unit meets our stringent quality requirements. Detailed statistical production records are maintained and rigid quality and AVL control insures the highest quality product available. Each power supply design is also rigorously tested by UL, with scheduled factory audits to ensure ongoing compliance.

Contact us regarding custom and modified standard supplies for unique applications.







when a thin insulator, 0.4mm thick (polyester, fish paper or equivalent UL rated

94V-2 minimum) is placed between the XL125 and the mounting chassis (refer to







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MODEL	PART NUMBER	OUTPUT	VOLTAGE	REGULATION (%)	MAXIMUM CURRENT (A)	RIPPLE & NOISE (P-P)
XL125-03	400010-03-9	V1	3.3	±3	32.0	50 mV
XL125-03 CS	400010-01-3	V2	12	±5	0.5	120 mV
XL125-05	400003-08-3	V1	5	±3	25.0	50 mV
XL125-05 CS	400003-01-8	V2	12	±5	0.5	120 mV
XL125-12	400004-67-7	V1	12	±3	10.4	120 mV
XL125-12 CS	400004-61-0	V2	12	±5	1.0	120 mV
XL125-15	400005-62-5	V1	15	±3	8.3	150 mV
XL125-15 CS	400005-61-7	V2	12	±5	1.0	120 mV
XL125-24	400006-68-0	V1	24	±3	5.2	240 mV
XL125-24 CS	400006-61-5	V2	12	±5	1.0	120 mV
XL125-28	400006-66-4	V1	28	±3	4.5	280 mV
XL125-28 CS	400006-64-9	V2	12	±5	1.0	120 mV
XL125-48	400007-63-9	V1	48	±3	2.6	480 mV
XL125-48 CS	400007-61-3	V2	12	±5	1.0	120 mV
XL125-1	400002-61-4	V1	3.3	±2	10.0	50 mV
		V2	5	±4	15.0	50 mV
		V3	12	±5	5.0	120 mV
		V4	-12	±5	1.0	120 mV
XL125-7	400008-61-1	V1	2.5	±2	13.2	50 mV
		V2	5	±4	15.0	50 mV
		V3	12	±5	5.0	120 mV
		V4	-12	±5	1.0	120 mV
XL125-8	400009-61-9	V2	5	±4	16.5	50 mV
		V3	12	±5	5.0	120 mV
		V4	-12	±5	1.0	120 mV

CS = Current Sharing

INPUT SPECIFICATIONS

Nominal Input Voltage: 100 - 240 VAC 90 - 264 VAC Maximum AC Input: Input Frequency Range: 47 - 63 Hz1.8 A @ 100 VAC Input Current: Input Protection: 3 15 A fuse

3000 VAC input to output Safety Isolation: 1500 VAC input to ground Inrush Current: 33 A @ 115 VAC

Leakage Current: $< 0.75 \, \text{mA}$

Power Factor Active PFC circuitry, meets or exceeds EN61000-3-2 Correction:

OUTPUT SPECIFICATIONS

125W Total Power:

Minimum 28 mS at all input Hold-up Time: voltages

Efficiency: Up to 92% † Minimum Load: No load †

Over / Under Shoot: Maximum 10% at turn-on

PROTECTION

Overvoltage Protection: On all main outputs Overpower Protection: Protected / Auto-recovery All outputs protected against Short Circuit Protection:

short circuit Protected against Thermal Shutdown: over-temperature conditions

OPERATING SPECIFICATIONS

Operating Temperature: -25°C to +50°C Temperature Derating: 2.5% / degree C to 70°C Storage Temperature: -40°C to +85°C Forced Air Cooling: 5 CFM

Convection Cooling: See Product Specification MTBF: 627,221 hours @ 25°C *

SIGNALS

Remote Sense: On main output $\uparrow \Delta$

Active current sharing with

Current Sharing: OR-ing diode or

MOSFETs $\dagger \Delta$ Provided † Output †

Power Good: PS OK: LED: Some models †

† See Product Specification

 $^\Delta\operatorname{Some}$ Models

* See MTBF Report for additional temperature values

Compliance: 1 USA / Canada

Safety: Underwriters Laboratories: UL 60950-1:2007 (2nd

Edition) / C22.2 No. 60950-1-07 Safety of Information

Technology Equipment (ITE)

EMC: FCC part 15, subpart B

2006/95/EC - "Low Voltage (Safety) Directive"

Demko: EN 60950-1:2006 (2nd Edition) +A1:2010 +A11:2009

2004/108/EC "Electromagnetic Compatibility (EMC) Directive"

EN 61204-3 Class B

¹ See Product Specification for additional information

Europe

+A12:2011 +A2:2013

XL125 products are protected by patent number 6,163,139

International

IEC 60950-1:2005 (2nd Edition)+ Am1:2009 + Am2:2013 Safety of Information Technology Equipment

IEC 61204-3 Class B

For complete specifications on all models, please visit our website at: www.n2power.com

All information and specifications are based on our knowledge of the products at the time of printing. N2Power reserves the right to change specifications without notice.

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