



## N2Power XL375 AC-DC Series High Efficiency Power Supplies

### HIGHLIGHTS

- 375 W AC-DC
- Up to 93% efficiency
- High power density: Over 15W/cu in.
- 3.3" x 5" footprint
- All outputs may be paralleled
- Remote on/off
- 5 V Standby output (1 amp)
- 12 V Aux output (1 amp)
- Universal AC input
- Active PFC (90 – 264 VAC)
- Active current sharing for N, N+1 (main output)\*
- Active inrush current protection
- 260 W convection cooling
- RoHS compliant
- OR-ing MOSFET board (optional)
- 3 year warranty

### COMPLETE PROTECTION

The main output is enabled whenever all of the required startup conditions are met, and is shut down upon command, loss of input power or whenever excessive sensed. It always provides the host system with advanced warning of an impending shutdown to enable it to perform housekeeping before power is lost. The OR-ing board option allows the main outputs of up to four XL375s to be operated in parallel. It also provides hot-swappable N+1 configurations.

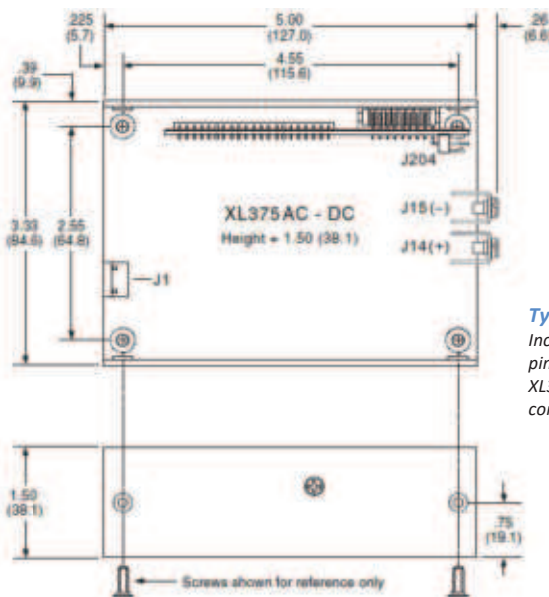
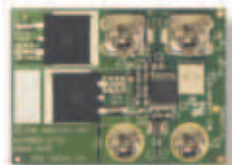
### UNMATCHED POWER DENSITY

With an overall height of 1.5" and a 3.3" x 5" footprint, the XL375 Series boasts a power density over 15 watts per cubic inch. It is ideally suited for OEMs using the industry standard 1U chassis.

## A POWER SUPPLY DESIGN LEADER

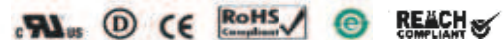
### HIGH EFFICIENCY IN A SMALL PACKAGE

**N2Power** leads the power density race with its high efficiency XL375 Series DC -DC power supplies, which provide up to 93% efficiency. In fact, comparisons of efficiencies show that our supplies can reduce energy losses by up to 50%. Our advanced technology yields a very small footprint and offers the highest power density in its class. This unique design also generates less wasted heat—reducing the need for forced air cooling, decreasing AC power consumption, increasing reliability, and maximizing its economy of operation. By building our power supplies with a focus on maximizing efficiency, we can provide our valued customers with reduced energy costs, longer product lifespans, and a greater return on their investment.



OR-ing Board Option

**Typical Mechanical Drawing:**  
Inches (millimeters), connectors and pinouts may vary with model. Refer to XL375 Product Specification for complete information.



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

**N2Power™**

Call 805.583.7744

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Rev042820

Continued on back...

# N2Power XL375 AC-DC Series

## High Efficiency Power Supplies

| MODEL       | PART NUMBER | OUTPUT | VOLTAGE | REGULATION (%) | MAXIMUM CURRENT (A) | RIPPLE & NOISE (P-P) |
|-------------|-------------|--------|---------|----------------|---------------------|----------------------|
| XL375-12 CS | 400040-01-0 | V1     | 12      | ±3             | 30.0                | 100 mV               |
|             |             | V2     | 12      | ±5             | 1.0                 | 80 mV                |
|             |             | V3     | 5sb     | ±5             | 1.0                 | 50 mV                |
| XL375-24 CS | 400041-01-8 | V1     | 24      | ±3             | 15.0                | 200 mV               |
|             |             | V2     | 12      | ±5             | 1.0                 | 80 mV                |
|             |             | V3     | 5sb     | ±5             | 1.0                 | 50 mV                |
| XL375-28 CS | 400052-01-5 | V1     | 28      | ±3             | 12.8                | 200 mV               |
|             |             | V2     | 12      | ±5             | 1.0                 | 80 mV                |
|             |             | V3     | 5sb     | ±5             | 1.0                 | 50 mV                |
| XL375-34 CS | 400046-05-8 | V1     | 34      | ±3             | 10.6                | 200 mV               |
|             |             | V2     | 12      | ±3             | 1                   | 80 mV                |
|             |             | V3     | 5sb     | ±5             | 1                   | 200 mV               |
| XL375-36 CS | 400046-01-7 | V1     | 36      | ±3             | 10.0                | 50 mV                |
|             |             | V2     | 12      | ±5             | 1.0                 | 80 mV                |
|             |             | V3     | 5sb     | ±5             | 1.0                 | 50 mV                |
| XL375-40 CS | 400045-01-9 | V1     | 40      | ±3             | 9.0                 | 200mV                |
|             |             | V2     | 12      | ±5             | 1.0                 | 80 mV                |
|             |             | V3     | 5sb     | ±5             | 1.0                 | 50 mV                |
| XL375-48 CS | 400042-01-6 | V1     | 48      | ±3             | 7.5                 | 200 mV               |
|             |             | V2     | 12      | ±5             | 1.0                 | 80 mV                |
|             |             | V3     | 5sb     | ±5             | 1.0                 | 50 mV                |
| XL375-54 CS | 400044-01-2 | V1     | 54      | ±3             | 6.7                 | 200 mV               |
|             |             | V2     | 12      | ±5             | 1.0                 | 80 mV                |
|             |             | V3     | 5sb     | ±5             | 1.0                 | 50 mV                |
| XL375-56 CS | 400043-01-4 | V1     | 56      | ±3             | 6.4                 | 200 mV               |
|             |             | V2     | 12      | ±5             | 1.0                 | 80 mV                |
|             |             | V3     | 5sb     | ±5             | 1.0                 | 50 mV                |

Note: If you can't find your preferred output voltage listed on the table above, please contact a sales representative. We can easily modify standard PSUs to meet client-specific voltage requirements.

1See Product Specification for additional information. The power supply is considered a component of the final product in which it is being used. The final product itself must be tested separately for compliance with all applicable standards.

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### Compliance (See Product Spec for additional information):

#### USA / Canada

**Safety:** UL 60950-1:2007 (2nd Edition) / C22.2 No. 60950-1-07  
UL 62368-1 (Second Edition)  
Safety of Information Technology Equipment

**EMC:** FCC part 15, subpart B

#### Europe

2006/95/EC - "Low Voltage (Safety) Directive"  
Demko: EN 60950-1:2006 (2nd Edition) +A1:2010  
+A11:2009 +A12:2011 +A2:2013  
EN 62368-1:2014 / A1:2017  
2004/108/EC "Electromagnetic Compatibility (EMC) Directive" EN 61204-3 Class B

#### International

IEC 60950-1:2005 (2nd Edition)+ Am1:2009 + Am2:2013  
IEC 62368-1:2014  
Safety of Information Technology Equipment  
IEC 61204-3 Class B

### INPUT SPECIFICATIONS

|                          |                                                      |
|--------------------------|------------------------------------------------------|
| Nominal Input Voltage:   | 100 – 240 VAC                                        |
| Tested Input Limits:     | 90 – 264 VAC                                         |
| Input Frequency Range:   | 47 – 63 Hz                                           |
| Input Current:           | 4.3 A @ 100 VAC                                      |
| Safety Isolation:        | 3000 VAC input to output<br>1500 VAC input to ground |
| Inrush Current:          | 14 A @ 240 VAC †                                     |
| Leakage Current:         | 0.75 mA @ 240 VAC / 60 Hz †                          |
| Power Factor Correction: | Active PFC circuitry, meets or exceeds EN61000-3-2 † |

### OR-ING BOARD OPTION †

|                 |                   |
|-----------------|-------------------|
| Output Voltage: | OR-ing Board P/N: |
| 12V             | 400040-02-8       |
| 24V             | 400041-02-6       |
| 28 – 48V        | 400052-02-3       |
| 54 – 56V        | 400044-02-0       |

### OUTPUT SPECIFICATIONS

|                     |                                              |
|---------------------|----------------------------------------------|
| Total Output:       | 375 W (260 W with convection cooling option) |
| Hold-up Time:       | Minimum 22 ms at all input voltages          |
| Efficiency:         | Up to 93%                                    |
| Minimum Load:       | No load                                      |
| Over / Under Shoot: | Max 10% at turn-on                           |

### PROTECTION

|                               |                                                              |
|-------------------------------|--------------------------------------------------------------|
| Input Overcurrent Protection: | 6.3 A fuse                                                   |
| Overvoltage Protection:       | V1 (latches off)                                             |
| Overpower Protection:         | Protected / Auto-recovery                                    |
| Short Circuit Protection:     | Auto recovery of all outputs protected against short circuit |
| Thermal Shutdown:             | Auto recovery protection against over temperature conditions |

### ENVIRONMENTAL SPECIFICATIONS

|                        |                             |
|------------------------|-----------------------------|
| Operating Temperature: | –25 to +70°C                |
| Temperature Derating:  | 2.5% / degree, 50°C to 70°C |
| Storage Temperature:   | – 40 to +85°C               |
| Forced Air Cooling:    | 10 CFM minimum †            |
| Convection Cooling:    | 260W                        |
| MTBF:                  | 376,644 hours @ 25°C *      |

### SIGNALS

|                        |                                            |
|------------------------|--------------------------------------------|
| Remote Sense           | V1 and Return                              |
| Current Sharing        | V1 using active circuitry                  |
| Passive Redundancy     | V2 and V3 outputs may be wire OR-ed        |
| Power Good (PG) Output | High-true CMOS logic and LED drive outputs |
| Remote Enable Input    | Low-true input enables V1 output †         |
| Onboard LED Indicators | AC On, Power Good                          |
| Trim Input             | ±5%                                        |

† See Product Specification

\* See MTBF Report for additional temperature values

Contact us regarding custom and modified standard supplies for unique applications.  
For complete specifications on all models, please visit our website at [N2Power.com](http://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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