

- **275 W AC-DC / 3" X 5" FOOTPRINT**
- **UP TO 91% EFFICIENCY**
- **HIGH POWER DENSITY: OVER 12 W / in³**
- **ALL OUTPUTS MAY BE PARALLELED**
- **REMOTE ON / OFF**
- **5W 5V STANDBY SUPPLY**
- **UNIVERSAL AC INPUT**
- **ACTIVE PFC (90 – 264 VAC)**
- **BUILT IN OR-ING MOSFET FOR N, N+1**
- **ACTIVE INRUSH CURRENT PROTECTION**
- **RoHS COMPLIANT**
- **PMBus™ INTERFACE FOR DIGITAL POWER MANAGEMENT (OPTIONAL)**



POWER SUPPLY DESIGN LEADER

N2Power™ leads the power density race with its small, high efficiency XL275 Series AC-DC power supplies. Our advanced technology

TWICE THE POWER IN HALF THE SPACE

yields a very small footprint, reduces wasted power, and offers the highest power density in its class. This efficient design means reduced energy costs, a greater return on your investment, greater reliability and longer product life.

ADVANCED DIGITAL CONTROLLER

The XL275 is the first power supply in this class to use a dedicated digital microcontroller to supervise the unit's operation. The microcontroller monitors the following parameters:

- DC voltage on the bulk capacitor (supplied by the AC mains)
- Output voltage
- Output current
- Auxiliary 12V output voltage
- Transformer temperature
- Ambient temperature
- Fan tachometer

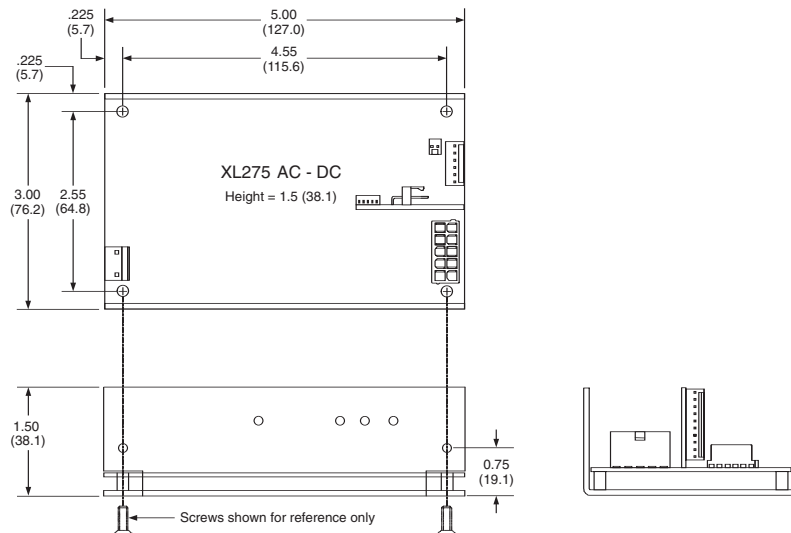
The microcontroller enables the main output whenever all of the required startup conditions are met, and shuts it down upon command, loss of input power or whenever excessive loads or temperatures are sensed. It always provides advanced warning of an impending shutdown before output power is lost.

PMBus™ OPTION

An optional PMBus™ digital communications interface is available to allow up to four

Typical Mechanical Drawing:

Inches (millimeters), connectors and pinouts may vary with model. Refer to XL275 Product Specification for complete information.



XL275s to communicate over the same bus using the PMBus™ protocol. This interface allows routine remote control of the main outputs and the 12V fans. The host can also query the microcontroller for its output voltage

and current plus the ambient and transformer temperatures and fan tachometer speed. Because it is programmable, the microcontroller code can be customized to meet unique OEM requirements.

Distributed by:

Power Sources Unlimited, Inc. Wrentham, MA • Tel: 508-384-1419 • sales@psui.com • www.psui.com



| MODEL | PART NUMBER | OUTPUT | VOLTAGE | REGULATION (%) | MAXIMUM CURRENT (A) | RIPPLE & NOISE (P-P) |
|-------------|-------------|--------|---------|----------------|---------------------|----------------------|
| XL275-12 | 400029-02-1 | V1 | 12 | ±3 | 22.9 | 100 mV |
| XL275-12 CS | 400029-01-3 | V2 | 12 | ±5 | 1.0 | 80 mV |
| | | V3 | 5sb | ±5 | 1.0 | 50 mV |
| XL275-15 | 400029-05-4 | V1 | 15 | ±3 | 18.3 | 150 mV |
| XL275-15 CS | 400029-03-9 | V2 | 12 | ±5 | 1.0 | 80 mV |
| | | V3 | 5sb | ±5 | 1.0 | 50 mV |
| XL275-16 | 400029-06-2 | V1 | 16 | ±3 | 17.1 | 150 mV |
| XL275-16 CS | 400029-04-7 | V2 | 12 | ±5 | 1.0 | 80 mV |
| | | V3 | 5sb | ±5 | 1.0 | 50 mV |
| XL275-18 | 400029-07-0 | V1 | 18 | ±3 | 15.3 | 200 mV |
| XL275-18 CS | 400029-08-8 | V2 | 12 | ±5 | 1.0 | 80 mV |
| | | V3 | 5sb | ±5 | 1.0 | 50 mV |
| XL275-24 | 400030-02-9 | V1 | 24 | ±3 | 11.5 | 200 mV |
| XL275-24 CS | 400030-01-1 | V2 | 12 | ±5 | 1.0 | 80 mV |
| | | V3 | 5sb | ±5 | 1.0 | 50 mV |
| XL275-28 | 400032-06-6 | V1 | 28 | ±3 | 9.8 | 200 mV |
| XL275-28 CS | 400032-05-8 | V2 | 12 | ±5 | 1.0 | 80 mV |
| | | V3 | 5sb | ±5 | 1.0 | 50 mV |
| XL275-36 | 400035-02-8 | V1 | 36 | ±3 | 7.6 | 200 mV |
| XL275-36 CS | 400035-01-0 | V2 | 12 | ±5 | 1.0 | 80 mV |
| | | V3 | 5sb | ±5 | 1.0 | 50 mV |
| XL275-48 | 400031-02-7 | V1 | 48 | ±3 | 5.7 | 200 mV |
| XL275-48 CS | 400031-01-9 | V2 | 12 | ±5 | 1.0 | 80 mV |
| | | V3 | 5sb | ±5 | 1.0 | 50 mV |
| XL275-54 | 400032-04-1 | V1 | 54 | ±3 | 5.1 | 200 mV |
| XL275-54 CS | 400032-03-3 | V2 | 12 | ±5 | 1.0 | 80 mV |
| | | V3 | 5sb | ±5 | 1.0 | 50 mV |
| XL275-56 | 400032-02-5 | V1 | 56 | ±3 | 4.9 | 200 mV |
| XL275-56 CS | 400032-01-7 | V2 | 12 | ±5 | 1.0 | 80 mV |
| | | V3 | 5sb | ±5 | 1.0 | 50 mV |

CS = Current Sharing

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

¹ See Product Specification for additional information

Europe:

2006/95/EC - "Low Voltage (Safety) Directive"
Demko: EN 60950-1:2006+A11:2009 (2nd Edition)

2004/108/EC "Electromagnetic Compatibility (EMC) Directive"
EN 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: | 3.5 A @ 100 VAC |
| Input Protection: | 5 A fuse |
| Safety Isolation: | 3000 VAC input to output 1500 VAC input to ground |
| Inrush Current: | 13 A @ 240 VAC [†] |
| Leakage Current: | 0.7mA [†] |
| Power Factor Correction: | Active PFC circuitry, meets or exceeds EN61000-3-2 |
| OUTPUT SPECIFICATIONS | |
| Total Output: | 275 W |
| Hold-up Time: | Minimum 22 ms |
| Efficiency: | Up to 91% [†] |
| Minimum Load: | No load |
| Over / Under Shoot: | Maximum 10% at turn-on |
| PROTECTION | |
| Overvoltage Protection: | V1 and V2 latch 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 |
| OPERATING SPECIFICATIONS | |
| Operating Temperature: | -25 to +50°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: | 150W |
| MTBF: | 645,362 hours @ 25°C* |
| SIGNALS | |
| Remote Sense | |
| Active Current Sharing | |
| Passive Redundancy | |
| Fan Output 1 | |
| Fan Output 2 | |
| Fan Tachometer Input | |
| Optional I ² C Data / Clock | |
| Power Good (PG) Output | |
| Standby Output | |
| Remote Enable Input | |
| Onboard LED Indicators | |

[†] See Product Specification

* See MTBF Report for additional temperature values

International:

IEC 60950-1:2005 (2nd Edition) Safety of Information Technology Equipment

IEC 61204-3 Class B



For complete specifications on all models, please visit our website at: www.N2Power.com

N2Power
A Qualstar Company
3990-B Heritage Oak Court
Simi Valley, CA 93063

Fax: 805-583-7749
Tel: 805-583-7744
800-468-0680 (U.S. Toll Free)
E-mail: sales@N2Power.com
Website: 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.

Qualstar and the Qualstar logo are registered trademarks of Qualstar Corporation. N2Power and the N2Power logo are trademarks of Qualstar Corporation. All other trademarks are the property of their respective owners.

Copyright © 2011 • Qualstar Corporation.
All rights reserved. Printed in USA.
NDS015 10/11



NASDAQ: QBAK

Distributed by:

Power Sources Unlimited, Inc. Wrentham, MA • Tel: 508-384-1419 • sales@psui.com • www.psui.com