

## N2Power XL270 AC-DC Series High Efficiency Power Supplies

### HIGHLIGHTS

- 270 W AC-DC
- Up to 92% efficiency
- High power density: Over 24 W/cu in.
- 2" x 4" footprint
- Remote enable
- 5 W 5V standby supply
- 6 W 12V auxiliary supply
- 140 W convection cooled rating
- Active PFC (90 – 264 VAC)
- Active inrush current protection
- RoHS compliant
- Active Current Sharing (Optional)
- Power good / Power fail
- No load operation
- PMBus Interface
- 3 year warranty

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

### CURRENT SHARE OPTION

By using the active current-sharing feature from XL270 CS (Current Share) models, the outputs of up to four power supplies can be connected in parallel to provide higher output power.

Multiple XL270 CSs can also be used in redundant or N+1 configuration to provide greater reliability. These power supplies have built-in output OR-ing MOSFETs.

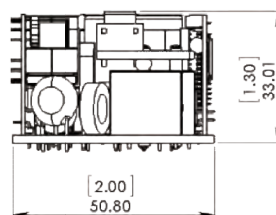
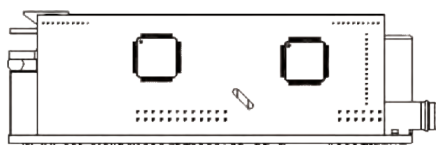
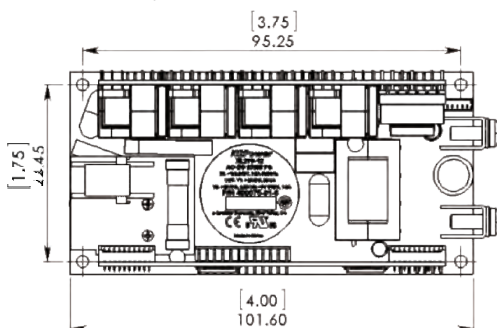
# A POWER SUPPLY DESIGN LEADER

### STATE-OF-THE-ART DIGITAL CONTROLLER

The XL270 is the first power supply in this class to use two digital signal processors to control the unit's operation. The DSPs monitor the following values:

- Output voltage
- Output current
- Auxiliary 12V output voltage
- Self-diagnostic feature
- Transformer temperature
- Auto-optimize feature

**N2Power** leads the power density race with its high efficiency XL270 Series AC -DC power supplies, which provide up to 92% 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.



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

**N2Power™**

Call 805.583.7744

N2Power.com

Rev042820

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# N2Power XL270 AC-DC Series

## High Efficiency Power Supplies

MODEL	PART NUMBER	OUTPUT VOLTAGE	REGULATION (%)	MAXIMUM CURRENT (A)	RIPPLE & NOISE (P-P)	
XL270-12 / XL270-12 CS	400075-01-6 / 400075-09-9	V <sub>OUT</sub>	12	±3	22.5	120 mV
		V <sub>AUX</sub>	12	±5	0.5	120 mV
		V <sub>SB</sub>	5	±5	1.0	50 mV
XL270-24 / XL270-24 CS	400075-02-4 / 400075-10-7	V <sub>OUT</sub>	24	±3	11.3	240 mV
		V <sub>AUX</sub>	12	±5	0.5	120 mV
		V <sub>SB</sub>	5	±5	1.0	50 mV
XL270-30 / XL270-30 CS	400075-03-2 / 400075-11-5	V <sub>OUT</sub>	30	±3	9.0	300 mV
		V <sub>AUX</sub>	12	±5	0.5	120 mV
		V <sub>SB</sub>	5	±5	1.0	50 mV
XL270-48 / XL270-48 CS	400075-05-7 / 400075-13-1	V <sub>OUT</sub>	48	±3	5.7	480 mV
		V <sub>AUX</sub>	12	±5	0.5	120 mV
		V <sub>SB</sub>	5	±5	1.0	50 mV
XL270-56 / XL270-56 CS	400075-07-3 / 400075-15-6	V <sub>OUT</sub>	56	±3	4.9	560 mV
		V <sub>AUX</sub>	12	±5	0.5	120 mV
		V <sub>SB</sub>	5	±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.

### Compliance \*

USA / Canada Safety:

UL 60950-1 Second Edition  
 UL 62368-1 Second Edition  
 CSA 22.2: 60950-1

### International

IEC 60950-1 (2005) Second Edition  
 IEC 62368-1 (2014) Second Edition

### EMC:

FCC part 15, subpart B

EN 61204-3  
 EN 61000

\* See 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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INPUT SPECIFICATIONS	
Nominal Input Voltage:	100 – 240 VAC
Tested Input Limits:	90 – 264 VAC
Input Frequency Range:	47 – 63 Hz
Input Current:	3.2 A @ 100 VAC
Safety Isolation:	3000 VAC input to output 1500 VAC input to ground
Inrush Current:	35 A @ 240 VAC, 25°C
Leakage Current:	< 0.7 mA
Power Factor Correction:	Active PFC circuitry, meets or exceeds EN61000-3-2
OUTPUT SPECIFICATIONS	
Total Output:	270 W
Output Voltages:	12 to 56 V
Hold-up Time:	Minimum 22 ms at all input voltages
Efficiency:	Up to 92%
Minimum Load	No load
Over / Under Shoot:	Max 5% at turn-on
PROTECTION	
Input Overcurrent Protection:	6.3 A fuse
Overvoltage Protection:	V <sub>OUT</sub> only latch off
Overpower Protection:	Auto-recovery
Short Circuit Protection:	Auto recovery
Thermal Shutdown:	Auto recovery
ENVIRONMENTAL SPECIFICATIONS	
Operating Temperature:	-25 to +70°C
Temperature Derating:	2.5% / 50°C to 70°C
Storage Temperature:	- 40 to +85°C
Forced Air Cooling:	15 CFM minimum†
Convection Cooling:	140 W
MTBF:	504,292 hours @ 25°C
SIGNALS	
Remote Sense	
Active Current Sharing Option	
Passive Redundancy	
Auxiliary Output	
Standby Output	
Power Good (PG) / Power Fail Output	
Remote Enable	
Onboard LED Indicators	

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)