N2POWER XL280 AC-DC SERIES

ULTRA SMALL, HIGH-EFFICIENCY POWER SUPPLY

- 280W AC-DC
- 3” x 5.3” footprint
- Up to 90% efficiency
- High power density: over 13W / cu in.
- All outputs may be paralleled
- Remote on/off
- 5V standby output (1A)
- 12V aux output (1A)
- Universal AC input
- Active PFC (90 – 264VAC)
- Active current sharing for N, N+1
- Active inrush current protection
- RoHS compliant
- POE compliant (54V and 56V models)

Power Supply Design Leader

N2Power leads the power density race with its high efficiency XL280 Series AC -DC power supplies. Our advanced technology 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.

Unmatched Power Density

With an overall height of 1.43" and a 3" x 5.3" footprint, the XL280 Series boasts a power density over 13 watts per cubic inch. It is ideally suited for OEMs using the industry standard 1U chassis.

High Efficiency in a Small Package

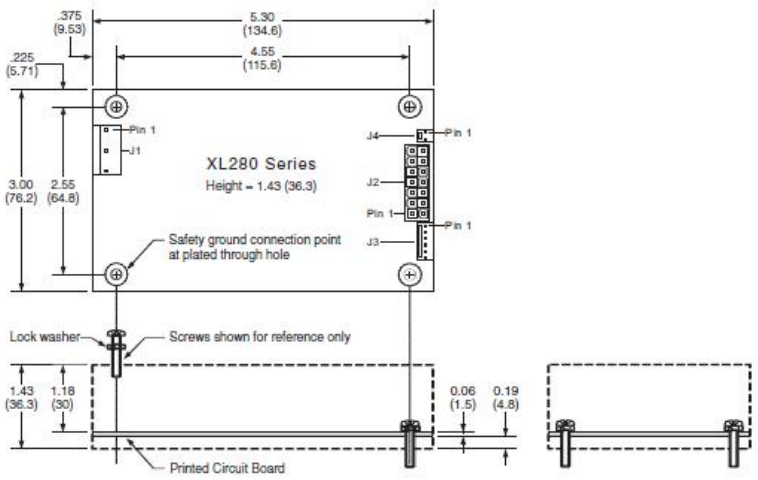
The XL280 Series provides up to 90% efficiency. Our unique design reduces energy consumption and generates less wasted heat. It requires little forced air cooling, decreases AC power consumption, increases reliability and economy of operation. Comparisons of efficiencies show that our supplies can reduce losses up to 50%.

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 loads or temperatures are sensed. When AC input power is lost it provides the host system with advanced warning of an impending shutdown.

Typical Mechanical Drawing:

Inches (millimeters), refer to XL280 Product Specification for complete information.



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MODEL	PART NUMBER	OUTPUT	VOLTAGE	REGULATION (%)	MAXIMUM CURRENT (A)	RIPPLE & NOISE (P-P)
XL280-12 XL280-12 CS	400082-01-2 400081-01-4	V1	12	±3	23.3	120 mV
		V2	12	±5	5.0	120 mV
		V3	12	±5	1.0	120 mV
		V4	5sb	±5	1.0	50 mV
XL280-24 XL280-24 CS	400082-02-0 400081-02-2	V1	24	±3	11.7	240 mV
		V2	12	±5	5.0	120 mV
		V3	12	±5	1.0	120 mV
		V4	5sb	±5	1.0	50 mV
XL280-48 XL280-48 CS	400082-03-4 400081-03-0	V1	48	±3	5.8	480 mV
		V2	12	±5	5.0	120 mV
		V3	12	±5	1.0	120 mV
		V4	5sb	±5	1.0	50 mV
XL280-54 XL280-54 CS	400082-04-6 400081-04-8	V1	54	±3	5.2	540 mV
		V2	12	±5	5.0	120 mV
		V3	12	±5	1.0	120 mV
		V4	5sb	±5	1.0	50 mV
XL280-56 XL280-56 CS	400082-05-3 400081-05-5	V1	56	±3	5.0	560 mV
		V2	12	±5	5.0	120 mV
		V3	12	±5	1.0	120 mV
		V4	5sb	±5	1.0	50 mV

Compliance:

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 (ITE)

EMC: FCC part 15, subpart B

Europe:

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

Demko: EN 60950-1:2006 + A11:2009 (2nd Edition)
EN 62368-1:2014 / A11:2017

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

EN 61204-3 Class B

International:

IEC 60950-1:2005 (2nd Edition)
EN 62368-1:2014 / A11:2017
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:	3.5 A @ 100 VAC
Safety Isolation:	3000 VAC in to out 1500 VAC in to ground
Inrush Current:	14 A @ 240 VAC
Leakage Current:	0.75 mA @240 VAC/60Hz
Power Factor Correction:	Active PFC circuitry, meets or exceeds EN61000-3-2
OUTPUT SPECIFICATIONS	
Total Output:	280 W
Output Voltages:	12 to 56 V
Hold-up Time:	Minimum 22 ms
Efficiency:	Up to 90%
Minimum Load:	No load
Over / Under Shoot:	Max 10% at turn-on
Output Isolation	For POE
PROTECTION	
Input Protection:	5 A fuse
Overvoltage Protection:	V1 (latches off)
Overpower Protection:	Auto-recovery
Short Circuit Protection:	Auto recovery
Thermal Shutdown:	Auto recovery
ENVIRONMENTAL 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:	See Specification
MTBF:	546,464 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
Remote Enable Input	Low-true input enables V1, V2, V3 output