



POWERSTAX N-0250 Series 1U High Ultra Compact AC-DC Power Supply 250W

Outline Product Specification

FEATURES

- ❑ 250W AC-DC
- ❑ UP TO 88% EFFICIENCY
- ❑ HIGH POWER DENSITY: OVER 9 W/in³
- ❑ REMOTE ON /OFF •
- ❑ 10W 5V STANDBY SUPPLY
- ❑ UNIVERSAL AC INPUT
- ❑ ACTIVE PFC (90 – 264 VAC)
- ❑ BUILT IN OR'ING DIODES FOR N+1
- ❑ SMALL FOOTPRINT
- ❑ <1U HIGH: 38.1mm (1.5")
- ❑ INRUSH CURRENT PROTECTION
- ❑ RoHS COMPLIANT
- ❑ OPTIONAL COVER & FAN ASSEMBLY

Powerstax continues to lead the power density race with its new small, high efficiency open frame N-0250 Series AC-DC power supplies.

The N-0250 Series provides up to 88% efficiency and the very small footprint reduces wasted power.

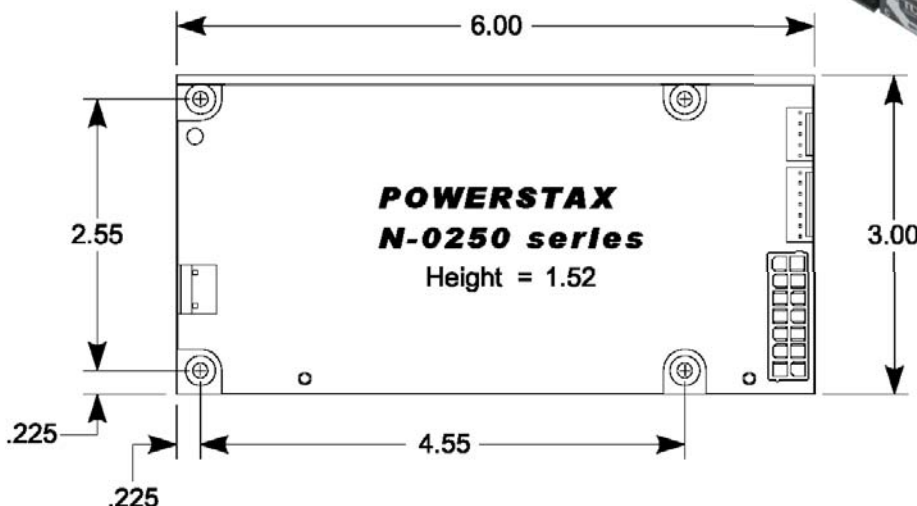
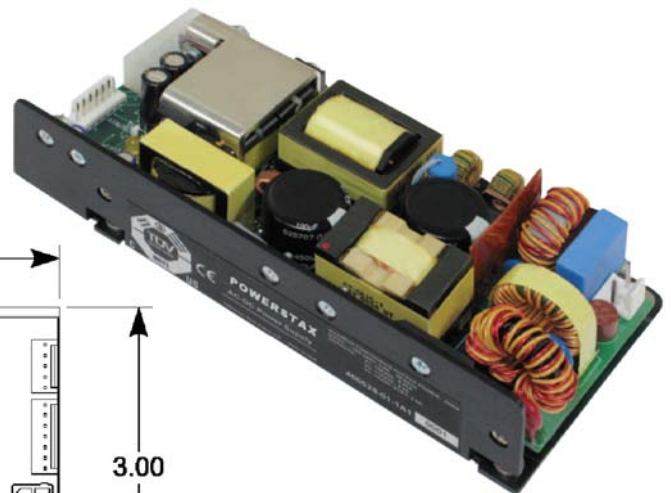
The unique design reduces energy consumption and generates less waste heat. It requires little forced air cooling, decreases AC loads and increases reliability and economy of operation.

The ultra low 1U high profile and compact package make it ideal for applications using industry standard 1U chassis and releases additional "real estate" for more functionality inside your product.

Contact Powerstax regarding custom or modified standard power supplies for unique applications.



Safety Approvals: UL, cUL, DEMKO, CE Mark
Emissions: FCC Class B



Connectors and pinouts may vary based on model. Refer to Powerstax N-0250 engineering specifications for complete information.



Outline Product Specification

INPUT SPECIFICATION	
Nominal Input Voltage:	100 - 240 VAC
Maximum AC Input:	90 - 264 VAC
Input Frequency Range:	47 - 63 Hz
Input Current:	3.5A @ 100 VAC
Input Protection:	5 A fuse
Safety Isolation:	3000 VAC input to output 1500 VAC input to ground
Inrush Current:	12 A @ 240 VAC†
Power Factor Correction:	active PFC circuitry, meets or exceeds EN61000-3-2

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†
Leakage Current:	< 1.5 mA
MTBF:	>200,000 hours calculated

SIGNALS	
Remote Sense:	on main output†
Current Sharing:	active wire with or'ing diode†
Power Good:	High-true output†
PS_OK:	Low-true output†
PS_ON:	open = off, low = on
LED:	AC_ON and PS_OK†

OUTPUT SPECIFICATION	
Power:	250 W
Hold-up Time:	minimum 22 mS at all input voltages
Efficiency:	up to 88%†
Minimum Load:	no load†
Over / Under Shoot:	maximum 10% at turn-on
PROTECTION	
Overvoltage Protection:	on all main outputs (latch off)
Overpower Protection:	protected / auto-recovery
Short Circuit Protection:	all outputs protected against short circuit
Thermal Shutdown:	Auto recovery protection against overtemperature conditions

† See Engineering Specification

COMPLIANCE:	
USA/Canada: UL60950 / C22.2, 60950 (Bi-National Standard) Safety of Information Technology Equipment	
Europe: 73/23/EEC "Low Voltage Directive" (Safety) IEC 60950 Third Edition (1999) Safety of Information Technology Equipment. CB certificate and report available. EN60950 (2000) Safety of Information Technology Equipment 89/336/EEC "Electromagnetic Compatibility Directive" (EMC) EN61000-3-3 (1995) Limits of Voltage Fluctuations & Flicker EN61000-3-2 (2000) Harmonic Current Emissions (Power Factor Correction) EN61204-3 (2001) Stabilized Power Supplies, d.c. Outputs EMC Standards Specification EN61204 (2001) is a product family EMC standard which references the following specifications: EN61000-4-2 (1995) ESD EN61000-4-3 (1996) +A1 (1998) Radiated Radio Frequency, Electromagnetic Field Immunity EN61000-4-4 (1995) Fast Transient / Burst Immunity EN61000-4-5 (1995) Surge Immunity EN61000-4-6 (1996) Immunity to Conducted Disturbances EN61000-4-11 (1994) Voltage Dips, Short Interrupts & Voltage Variations	

MODEL	OUTPUT	VOLTAGE	REGULATION (%)	MAXIMUM CURRENT (A)	RIPPLE & NOISE (P-P)
N-02501-PFC-120-0000	V1*	12	±3	21.0	100 mV
	V2	12	±5	2.5	80 mV
	V3	5sb	±5	2.0	50 mV
N-02501-PFC-240-0000	V1*	24	±3	10.5	100 mV
	V2	12	±5	2.5	80 mV
	V3	5sb	±5	2.0	50 mV
N-02501-PFC-480-0000	V1 *	48	±3	5.25	100 mV
	V2	12	±5	2.5	80 mV
	V3	5sb	±5	2.0	50 mV

* Isolated outputs for + / - use All outputs isolated from the chassis

Cover and Cover & Fan option available. Please contact Powerstax for further details.
Tel: +44 (0) 1252 407800 or Email: sales@powerstaxplc.com

Exceeding absolute maximum ratings may cause permanent damage and may reduce reliability. Information and specifications contained in this data sheet are believed to be correct at the time of publication. However, Powerstax accept no responsibility for consequences arising from printing errors or inaccuracies. Specifications are subject to change without notice.

