# POWERSTAX N-0125 Series

## 1U High Ultra Compact AC-DC Power Supply 125W

## Outline Product Specification

### FEATURES

- *125 W AC-DC*
- *UP TO 92% EFFICIENCY*
- *UNIVERSAL AC INPUT*
- *HIGH POWER DENSITY: 6.7 W /in³*
- *ACTIVE PFC (90 – 264 VAC)*
- *BUILT IN OR'ING DIODES FOR N+1*
- *3 X 5" (76.2 x 127mm) SMALL FOOTPRINT*
- *<1U HIGH: 1.25" (31.75mm)*
- *NO LOAD OPERATION*
- *RoHS COMPLIANT*

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

**Powerstax continues to lead the power density race with its new small, high efficiency open frame N-0125 Series AC-DC power supplies.**

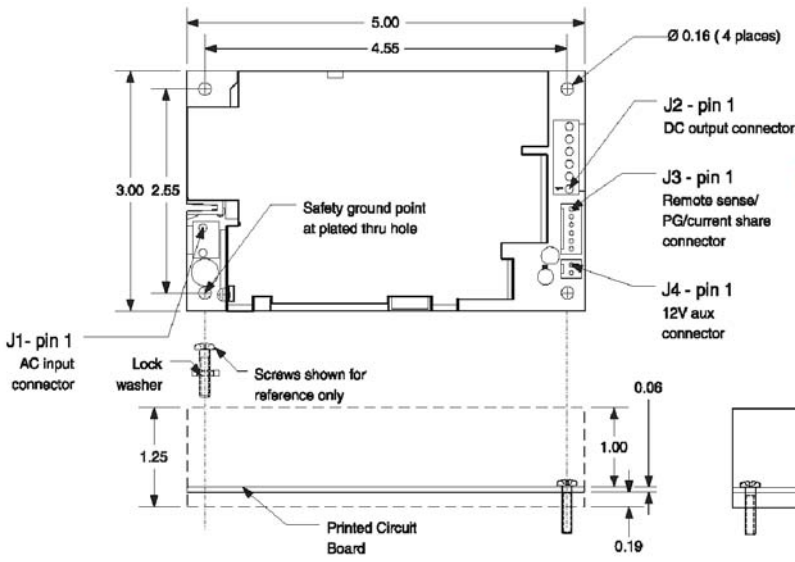
The N-0125 Series provides greater than 90% efficiency and the very small footprint reduces wasted power. This offers the highest power density in the market in the 125W power range.

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.

*Connectors and pinouts may vary based on model.*
*Refer to Powerstax N-0160 engineering specifications for complete information.*



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## Ultra Compact AC-DC Power Supply

# 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: | 1.8 A @ 100 VAC |
| Input Protection: | 3.15 A fuse |
| Safety Isolation: | 3000 VAC input to output<br>1500 VAC input to ground |
| Inrush Current: | 32 A@ 115 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 C to 70°C |
| Storage Temperature: | –40 to +85°C |
| Forced Air Cooling: | 5 CFM |
| Convection Cooling: | See Engineering Specification |
| Leakage Current; | <.75 mA |
| MTBF: | >200,000 hours calculated |
| **SIGNALS** | |
| Remote Sense: | on main output† |
| Current Sharing: | active current sharing with or'ing di-ode† |
| Power Good: | provided† |
| PS_OK: | output† |
| LED: | some models† |

| OUTPUT SPECIFICATION | |
|---|---|
| Power: | 125 W |
| Hold-up Time: | minimum 28 mS at all input voltages |
| Efficiency: | up to 92%† |
| Minimum Load: | no load† |
| Over / Under Shoot: | maximum 10% at turn-on |
| **PROTECTION** | |
| Overvoltage Protection: | on all main outputs |
| Overpower Protection: | protected / auto-recovery |
| Short Circuit Protection: | all outputs protected against short circuit |
| Thermal Shutdown: | protected against overtemperature conditions |

† See Engineering Specification ∅ Some Models

**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-01254-PFC-033-0000 | V1 | +3.3 | ±2 | 10.0 | 50 mV |
| | V2 | +5 | ±4 | 15.0 | 50 mV |
| | V3 | +12 | ±5 | 5.0 | 120 mV |
| | V4 | –12 | ±5 | 0.5 | 120 mV |
| N-01251-PFC-050-0000 | V1* | □5 | ±3 | 25.0 | 50 mV |
| | V2 | +12 | ±5 | 0.5 | 120 mV |
| N-01251-PFC-120-0000 | V1* | 12 | ±3 | 10.4 | 120 mV |
| | V2* | 12 | ±5 | 0.5 | 120 mV |
| N-01251-PFC-150-0000 | V1* | 15 | ±3 | 8.3 | 150 mV |
| | V2* | 12 | ±5 | 0.5 | 120 mV |
| N-01251-PFC-240-0000 | V1* | 24 | ±3 | 5.2 | 240 mV |
| | V2* | 12 | ±5 | 0.5 | 120 mV |
| N-01251-PFC-480-0000 | V1 | 48 | ±3 | 2.6 | 480 mV |
| | V2 | 12 | ±5 | 0.5 | 120 mV |
| N-01254-PFC-025-0000 | V1 | +2.5 | ±2 | 12.5 | 50 mV |
| | V2 | +5 | ±4 | 15.0 | 50 mV |
| | V3 | +12 | ±5 | 5.0 | 120 mV |
| | V4 | –12 | ±5 | 0.5 | 120 mV |
| N-01253-PFC-050-0000 | V1 | +5 | ±4 | 16.5 | 50 mV |
| | V2 | +12 | ±5 | 5.0 | 120 mV |
| | V3 | –12 | ±5 | 0.5 | 120 mV |
| N-01251-PFC-033-0000 | V1 | +3.3 | ±3 | 32.0 | 50 mV |
| | V2 | +12 | ±5 | 0.5 | 120 mV |

s Specify "Rev. S" for RoHS compliant products * Isolated outputs for + / – use ‡ Isolated from main output



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*December 2006*