

SPECIFICATION

Open Frame Switching Power Supply

Universal AC Input 120W 24VDC Output



P/N: N1120LN-24

**** Specification Approval****

This specification (including cover page) is approved in it's entirety by:

Company Name

Print Name

Signature

Date

Specification subject to change without prior notice.



1340 Norman Avenue
Santa Clara CA 95054
Tel: 1-408-980-9813
Fax: 1-408-980-8626
Email: infor@topmicro.com
Web: www.topmicro.com
050312

1. INPUT

Input Range

Parameter	Conditions / Description	Min.	Nom.	Max.	Units
Voltage	Universal-ranging	90	115	264	Vac
			230		
Current	@115Vac 120W Load	--	--	2.0	Arms
	@230Vac 120W Load	--	--	1.0	Arms
Frequency	Auto-ranging	47	50/60	63	Hz

Inrush Surge Current

- Cold Start @115Vac at 25°C ----- < 40 Ap-p
- Cold Start @230Vac, at 25°C ----- < 80 Ap-p

2. OUTPUT

Output Power

- Convection Rating ----- 120W Max.

Output Range

Voltage (Vdc)	Load Range (A)		Line Regulation (%)	Load Regulation (%) (Note 1)	Ripple&Noise (PARD) (mVp-p) (Note 2)
	MIN.	Max. (Convection)			
+24V	0A	5.0A	±0.5%	22.8~25.2Vdc (±5%)	240mVp-p

Note : 1. Load regulation is tested at 10% to 100% of rated load.

2. Peak-to-peak for 120W (convection rating) @115Vac MIN. ; Measurements with a 20MHz bandwidth and terminated with a 22uF electrolytic Cap. in parallel with a 0.1uF ceramic Cap.

Overshoot/Undershoot

- Turn-on / turn-off ----- <10%

3. GENERAL

Efficiency

■ Full Load @ 115Vac	-----	> 85 %
■ Full Load @ 230Vac	-----	> 85 %
■ DoE/ErP	-----	N/A

Turn-on Time

■ Full Load @115Vac	-----	< 3 Sec
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Hold-up Time

■ Full Load @115 Vac	-----	> 16 mSec
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Safety Ground Leakage Current

■ Class I type @230Vac 50Hz	-----	< 3.5 mA
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Withstand(Isolation) Voltage (UL60950-1 ; EN60950-1 2nd)

■ 4242Vdc, 1 Minute from Input (L1&L2) to Output	-----	< 10 mA
■ 2636Vdc, 1 Minute from Input (L1&L2) to Earth	-----	< 10 mA

Insulation Resistance

■ Input (L1&L2) to Output @ DC 500V	-----	> 100 MΩ
■ Input (L1&L2) to Earth @ DC 500V	-----	> 100 MΩ

Weight

■ Not Include Packing	-----	< 240 g
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4. PROTECTION

Brown-Out Protection (Input Voltage drops down to zero then back to nominal slowly)

■ All Outputs	-----	Auto-recovery
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Overvoltage Protection (Latch off)

■ V1 Overvoltage Range	-----	140%±30%
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Overcurrent(Overload) Protection (Overcurrent Range @110%~200% Above Rating Load)

■ All Outputs	-----	Hiccup / Auto-recovery
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Short Circuit Protection

■ All Outputs	-----	Hiccup / Auto-recovery
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5. ELECTROMAGNETIC COMPATIBILITY

Electromagnetic Interference (EMI/RFI)

- | | | |
|--|-------|---------|
| ■ FCC PART 15 Conducted/Radiated Emissions | ----- | Class B |
| ■ CISPR 22 Conducted/Radiated Emissions | ----- | Class B |
| ■ EN55022 Conducted/Radiated Emissions | ----- | Class B |

Harmonic Current

- | | | |
|---|-------|-------|
| ■ EN610003- 2 Class D (Power Factor Correction) | ----- | > 0.9 |
|---|-------|-------|

Voltage Variation Immunity (Flicker)

- | | | |
|--------------|-------|-----------|
| ■ EN610003-3 | ----- | Compliant |
|--------------|-------|-----------|

Electrostatic Discharge (ESD) Susceptibility

- | | | |
|---|-------|-------------|
| ■ EN61000-4-2 ; ±8KV Air Discharge | ----- | Criterion A |
| ■ EN61000-4-2 ; ±4KV Contact Discharge | ----- | Criterion A |
| ■ EN61000-4-2 ; ±4KV Indirect Discharge | ----- | Criterion A |

Radiated Susceptibility (RS):

- | | | |
|----------------------|-------|-------------|
| ■ EN61000-4-3 ; 3V/M | ----- | Criterion A |
|----------------------|-------|-------------|

Electrical Fast Transient(EFT)/Burst

- | | | |
|-----------------------------|-------|-------------|
| ■ EN610004-4 ; Impulse ±1KV | ----- | Criterion A |
|-----------------------------|-------|-------------|

Surge Susceptibility (Input Transient Protection)

- | | | |
|---|-------|-------------|
| ■ EN610004-5 ; ±1KV Line(L1) to Neutral(L2) | ----- | Criterion A |
| ■ EN610004-5 ; ±2KV Line(L1)&Neutral(L2) to Earth | --- | Criterion A |

Conducted RF Immunity :

- | | | |
|-------------------|-------|-------------|
| ■ EN610004-6 ; 3V | ----- | Criterion A |
|-------------------|-------|-------------|

Voltage Dips/Interruptions :

- | | | |
|-------------------------------|-------|-------------|
| ■ EN610004-11 ; Dips | ----- | Criterion A |
| ■ EN610004-11 ; Interceptions | ----- | Criterion A |

6. SAFETY

- UL 60950-1
- cUL 60950-1
- CB IEC 60950-1
- TUV EN 60950-1
- CE

7. ENVIRONMENTAL

Temperature :

- Operating Range ----- 0 ~ 50 °C
- Storage Range ----- -40 ~ 85 °C
- Derating Output (50~70 °C) ----- -2.5% per °C

Relative humidity :

- Non-Condensing ----- 5 % ~ 95 % RH

Vibration :

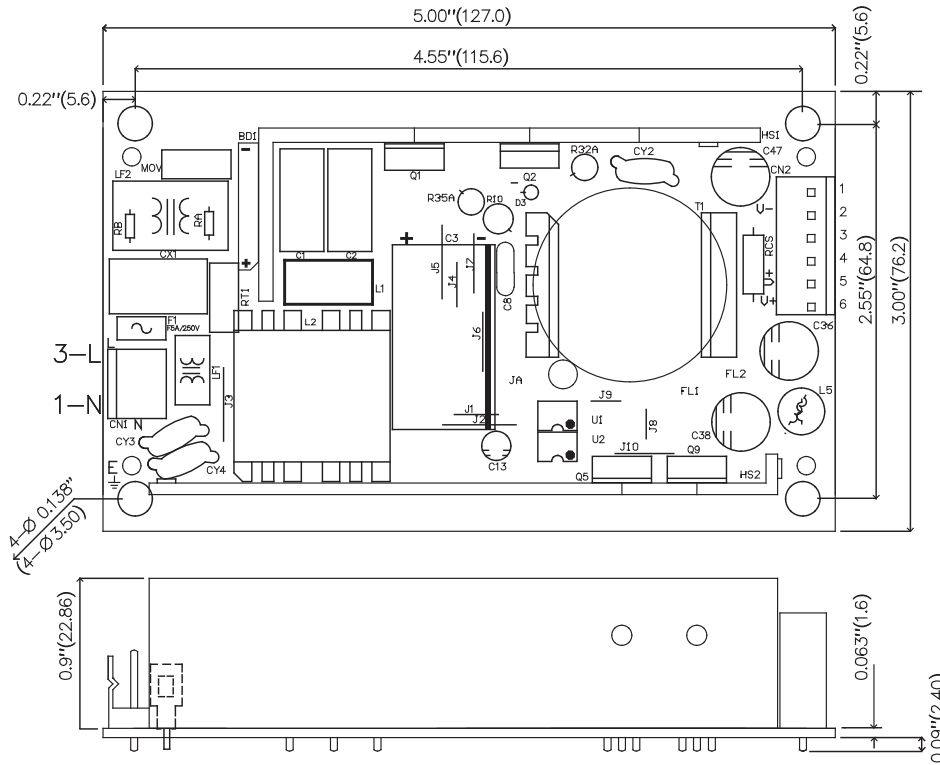
- Random—Operating , 3 axes , 50~500Hz , 10 min utes/axis ---- 2.4Grms Max.

Shock :

- Operating , Half Sine , 3 axes , 10 mS , 6 shocks total ----- 20Gpk Max.

8. MECHANICAL

Drawing & Dimensions



Notes:
 1.All dimensions in inches(mm)
 2.Tolerance ,XX=± 0.05", .XX=± 0.02"

Connector Types & Pin Assignments

Connctor Number	Connector Type	Pin Number	Signal
CON1 (Input)	Molex 0010634027 or Equivalent Parts Mating Type = Molex 0009501031 or Equivalent	PIN 1 PIN 2 PIN 3	LINE N.C. NEUTRAL
CON2 (Output)	Molex 0009652068 or Equivalent Parts Mating Type = Molex 0009501061 or Equivalent	PIN 4 ~ 6	+V
		PIN 1 ~ 3	RETURN