



## Medical & ITE

### General Purpose

**Rated 30W**  
**Max. 40W**  
**Peak 45W**  
**SNP-HF3 Series**



**1.57" x 2.76" x 0.93"**

## General Specifications:

Input voltage .....	90 VAC to 264 VAC
Input frequency .....	47 Hz to 63 Hz
Inrush current .....	< 40/80A at 115/230VAC
Hold up time .....	16ms
Over load/Short circuit protection .....	auto recovery
Over voltage protection .....	latch off
Operating temperature .....	-40°C to 70°C derating: 2.5% / °C > 50°C
Storage temperature .....	-40°C to +85°C

## Features:

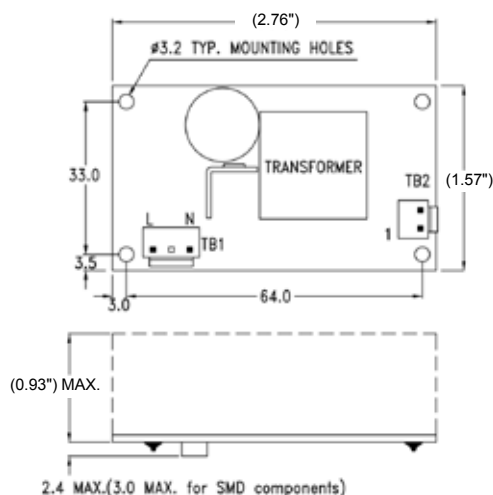
- Peak load (1.5 x rated current,  $V_o$ =rated for 5 sec)
- Design for BF application
- Convection cooling for Rated power
- No load < 0.3W
- (-A) for no burst sound
- For home healthcare application
- -40°C to +70°C operating temperature
- 5,000m operation altitude

## Applications:

- For peak load applications, such as motor drive, coffee machine, vending machine, gaming machine, and other industrials.
- For input class II and EMI class B application, such as home healthcare device, and other medical devices.

EMI .....	EN55011 "B", EN61000-3-3
Harmonics.....	EN61000-3-2, class A
EMS.....	EN61000-4-2,-3,-4,-5,-6,-8,-11
Safety .....	UL/CSA/EN60950-1, 2 <sup>nd</sup> edition
	ANSI/AMMI/CSA/EN60601-1, 3.1 edition
	CB report, CE mark, RM report/file
Energy Saving .....	ENERGY STAR
	for computers version 6.0
	for displays version 6.0
	ErP regulation EC(No) 1275/2008

## Mechanical Specifications:



-Jim-

**Notes:**

1. Size:  
1.57" x 2.76" x 0.93"
2. Mounting Hole:  
33 x 64 (mm)
3. Connectors:  
AC input: JST B2P3-VH or Molex 5277-02A or equivalent  
DC output: JST B2P-VH or Molex 5273-02A or equivalent
4. Output Pin assignment:

1	2
Vo	GND

5. Packing:  
Net weight: 61 g approx. / unit  
Gross weight: 12 kg approx. / carton, 150 units / carton  
Carton size (mm): 412 (L) x 327 (W) x 283 (H)

**10 years Warranty (contact Skynet's Distributors for details)**



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### Output Specifications:

MODEL NO.	OUTPUT RAIL	LOAD				INITIAL ACCURACY	STEP EFFICIENCY			AVERAGE EFFICIENCY
		MIN.	RATED	MAX.	PEAK		@ 20% LOAD	@ 50% LOAD	@ 100% LOAD	
SNP-HF37	+12V	0A	2.5A	3.33A	3.75A	+11.8V~+12.2V	86%	87%	86%	86%
SNP-HF37-A							72%	80%	82%	77%
SNP-HF38	+15V	0A	2A	2.67A	3A	+14.8V~+15.2V	86%	87%	86%	86%
SNP-HF38-A							74%	81%	82%	78%
SNP-HF39	+24V	0A	1.25A	1.67A	1.88A	+23.8V~+24.2V	86%	87%	86%	86%
SNP-HF39-A							74%	80%	84%	78%
SNP-HF3T	+48V	0A	0.63A	0.83A	0.94A	+47.6V~+48.4V	86%	87%	86%	86%
SNP-HF3T-A							79%	85%	86%	83%

### Note:

- Standby Power Consumption with System:**  
For computers and displays, ENERGY STAR in U.S. and ErP regulation in Europe require the input power should be less than 0.5W at standby mode.
- Output Load:**  
30W for convection cooling; 40W for forced air cooling.
- Peak Load Duration:**  
Peak 45W can last for 5 sec.
- Isolation Grade:**  
Primary ↔ Ground : 1MOPP (1500Vac)  
Primary ↔ Secondary : 2MOPP (4000Vac)  
Secondary ↔ Ground : 1MOPP (1500Vac)
- Leakage Current:**  
Earth leakage current < 300uA  
Touch current < 100uA
- EMI Grounding:**  
If there is a metal sheet under the power supply, connect the EMI ground to that metal sheet.
- Model Selection:**  
Most of power supplies will create audible burst sound at light load, if the application wants to meet input power < 0.5W at standby mode.  
SNP-HF3x is for ITE & Medical applications which require standby mode.  
SNP-HF3x-A is for ITE & Medical applications but without burst sound and no standby mode.
- The safety application will be proceeded upon request.



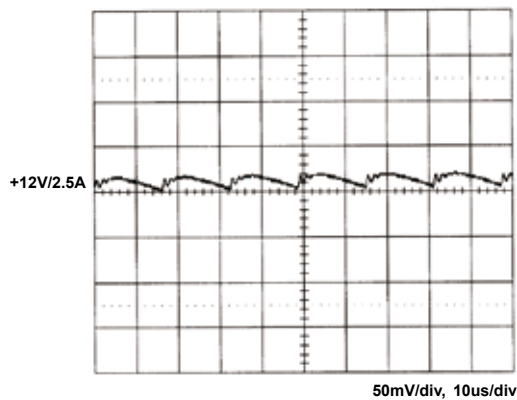
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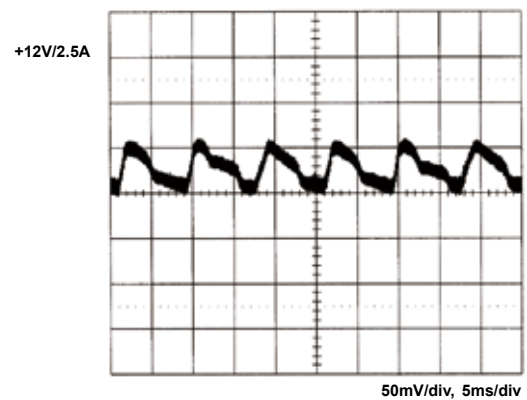
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### Performance for SNP-HF37-A:

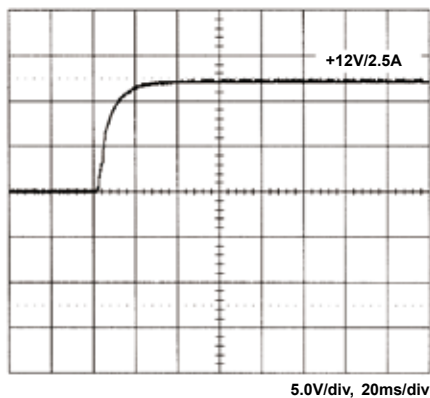
#### 1. Switching frequency ripple



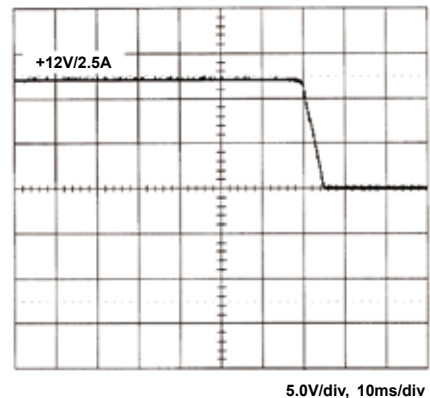
#### 2. Line frequency ripple



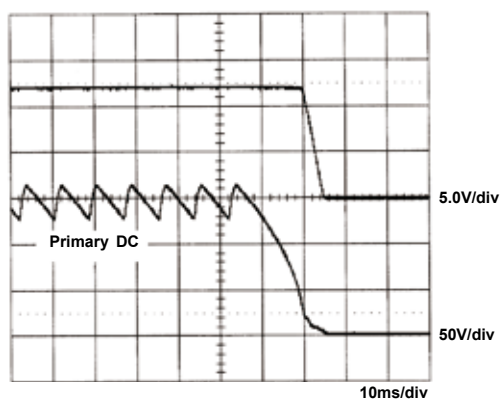
#### 3. Output turn on wave form



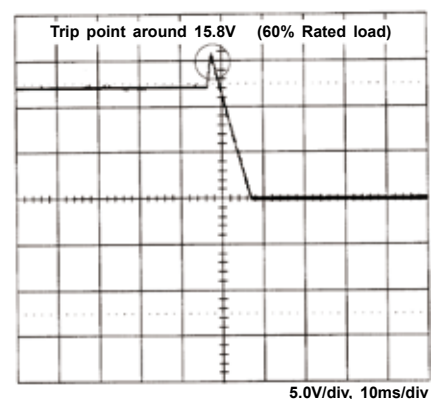
#### 4. Output turn off wave form



#### 5. Hold-up time



#### 6. Over voltage protection



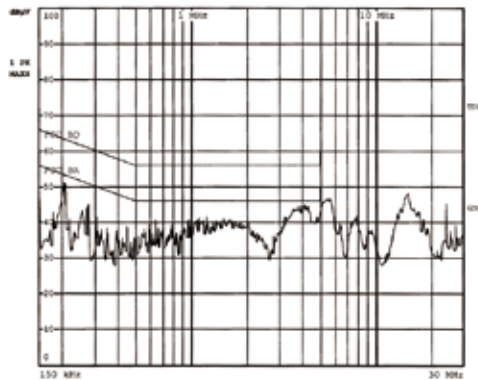


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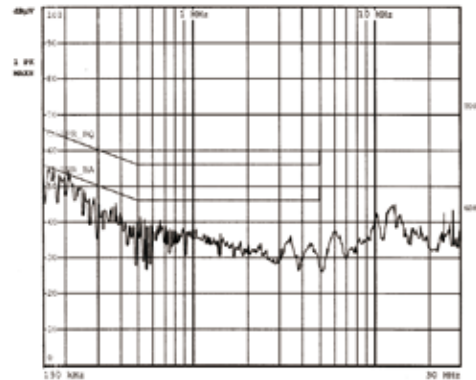
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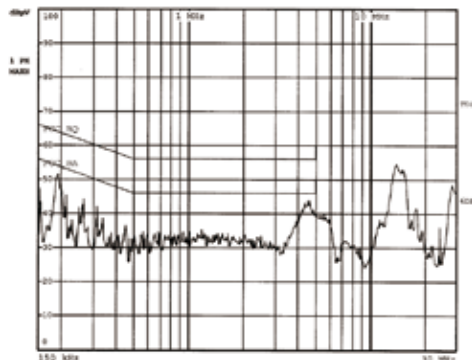
#### 7. FCC B Class I



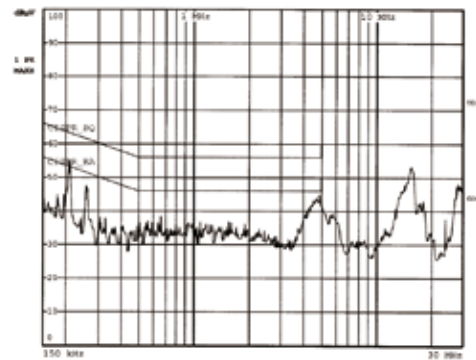
#### 8. EN55011 22 B Class I



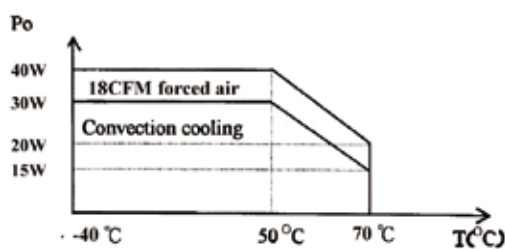
#### 9. FCC B Class II



#### 10. EN55011 22 B Class II



#### 11. Power derating curve



#### 12. Torque capability

SNP-HF37

