

**2" x 4" x 1.12"**

### General Specifications:

Input voltage ..... 90 VAC to 264 VAC  
 Input frequency ..... 47 Hz to 63 Hz  
 Inrush current ..... < 30/60A 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 for convection cooling  
 Storage temperature ..... -40°C to +85°C

### Features:

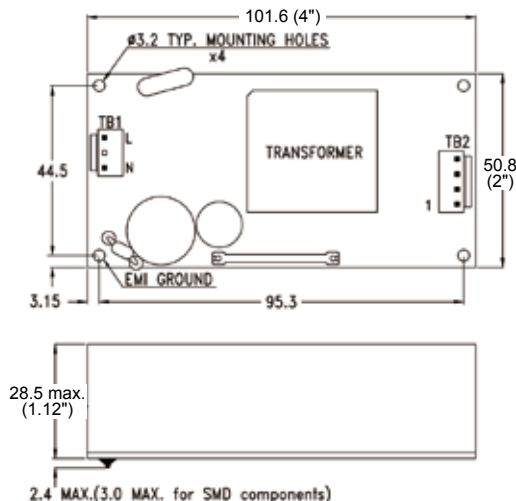
- Design for BF application
- 6dB EMI margin for Class I and Class II
- 5,000m operating altitude
- -40°C start-up capability
- 10,000uF start-up capability
- 0.2W margin for standby application
- High torque for motor start up

### Applications:

- For dental, laboratory products, pumps, monitors, sleep apnea devices and many other uses.

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<sup>rd</sup> 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:



### Notes:

1. Size:  
2" x 4" x 1.12"
2. Mounting Hole:  
44.5 x 95.3 (mm)
3. Connectors:  
AC input: JST B2P3-VH or Molex 5277-02A or equivalent  
DC output: JST B4P-VH or Molex 5273-04A or equivalent
4. Output Pin assignment:

1	2	3	4
V <sub>o</sub>	V <sub>o</sub>	GND	GND

5. Packing:  
Net weight: 160 g approx. / unit  
Gross weight: 15 kg approx. / carton, 80 units / carton  
Carton size (mm): 382 (L) x 374 (W) x 277 (H)

-David-

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

## Output Specifications:

MODEL NO.	OUTPUT RAIL	LOAD				INITIAL ACCURACY	STEP EFFICIENCY			AVERAGE EFFICIENCY
		MIN.	RATED	MAX.	PEAK		@ 20% LOAD	@ 50% LOAD	@ 100% LOAD	
SNP-HF87 SNP-HF87 -A SNP-HF87 -M SNP-HF87 -MA	+12V	0A	6.66A	7.5A	9A	+11.9V~+12.1V	85% 84%	86% 86%	87% 86%	86% 85%
SNP-HF88 SNP-HF88 -A SNP-HF88 -M SNP-HF88 -MA	+15V	0A	5.33A	6.66A	8A	+14.9V~+15.1V	85% 80%	86% 83%	87% 83%	86% 82%
SNP-HF89 SNP-HF89 -A SNP-HF89 -M SNP-HF89 -MA	+24V	0A	3.33A	4.6A	5.3A	+23.8V~+24.2V	85% 82%	86% 85%	87% 86%	86% 84%
SNP-HF8T SNP-HF8T -A SNP-HF8T -M SNP-HF8T -MA	+48V	0A	1.67A	2.1A	2.3A	+47.6V~+48.4V	85% 83%	86% 87%	87% 86%	86% 85%

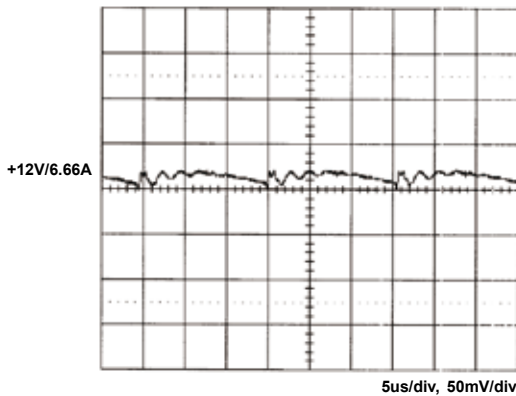
### Note:

- 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:**  
80W for convection cooling; 100W for forced air cooling.
- Peak Load Duration:**  
Peak 120W 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-HF8x is for ITE application which requires standby mode.  
SNP-HF8x-A is for ITE application but without burst sound and no standby mode.  
SNP-HF8x-M is for medical application which requires standby mode.  
SNP-HF8x-MA is for medical application but without burst sound and no standby mode.

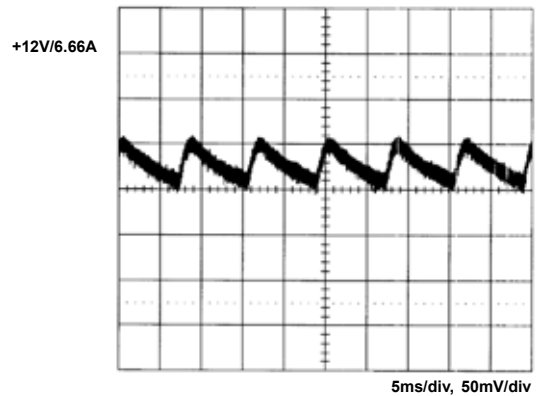
-David-

**Performance for SNP-HF87-A:**

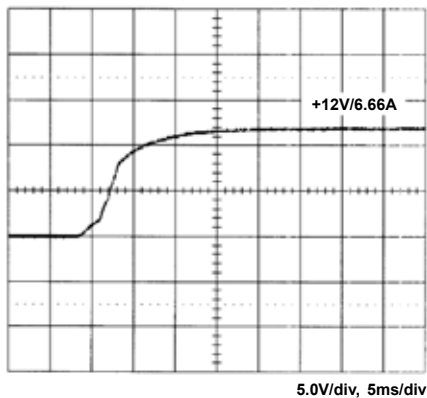
1. Switching frequency ripple



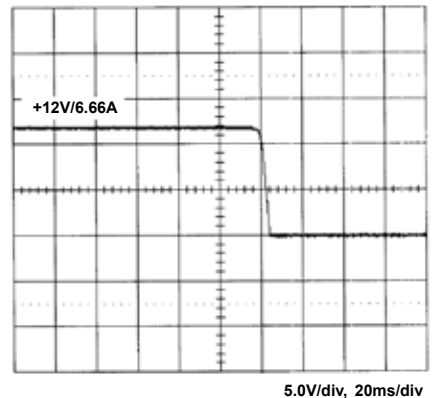
2. Line frequency ripple



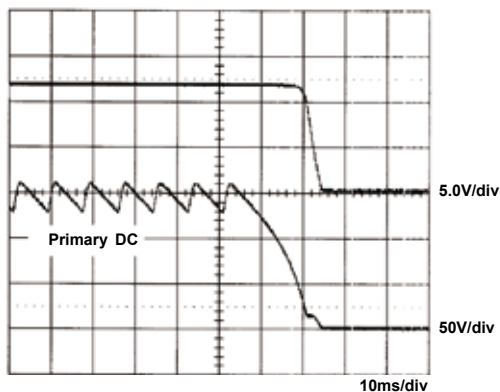
3. Output turn on wave form



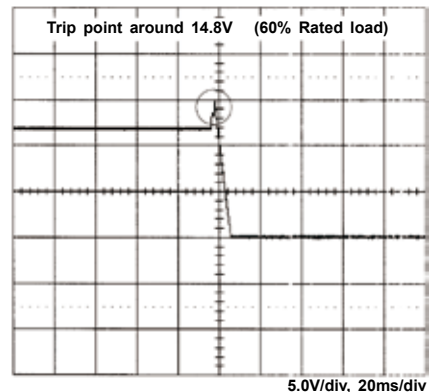
4. Output turn off wave form



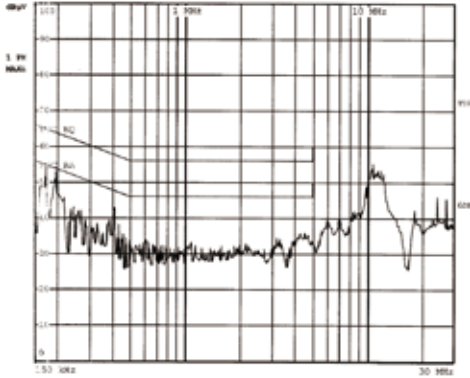
5. Hold-up time



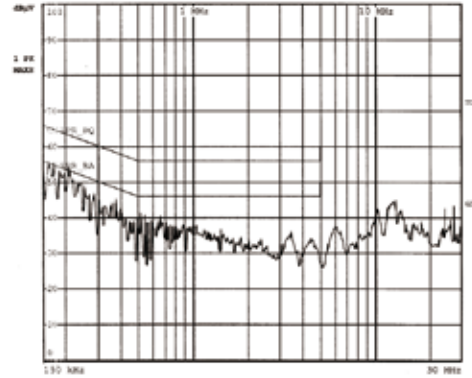
6. Over voltage protection



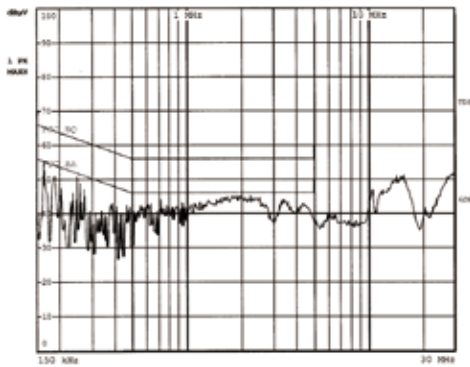
### 7. FCC B Class I



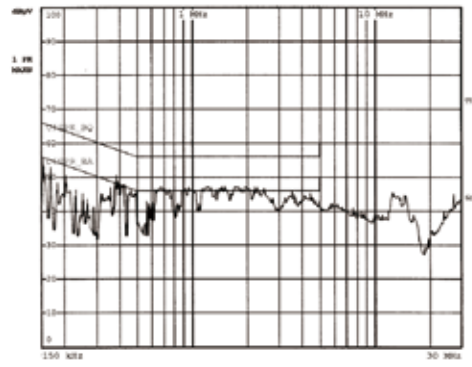
### 8. EN55011 22 B Class I



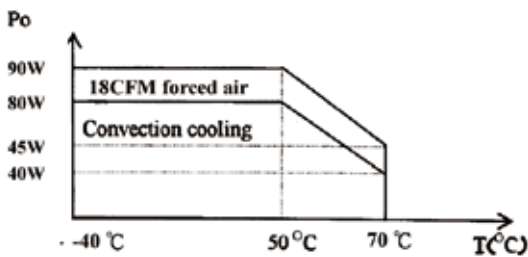
### 9. FCC B Class II



### 10. EN55011 22 B Class II



### 11. Power derating curve



### 12. Torque capability

