

# **Medical & ITE**

**General Purpose** 

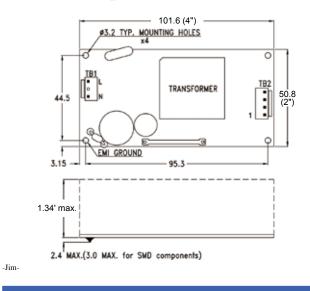


2" x 4" x 1.34" (Max.)

## **General Specifications:**

Input voltage	
Input frequency	47 Hz to 63 Hz
Inrush current	< 30/60A at 115/230VAC
Hold up time	
Over load/Short circuit protection	auto recovery
Over voltage protection	latch off
Operating temperature	40°C to 70°C
derating: $2.5\% / °C > 50$	<sup>o</sup> C for convection cooling
Storage temperature	40°C to +85°C

### **Mechanical Specifications:**



### **Features:**

- Peak load (1.5 x rated current, Vo=rated for 5 sec)
- Design for BF application
- Convection cooling for Rated power
- No load < 0.3W
- (-A) for no burst sound
- (-H) for home healthcare application
- $-40^{\circ}$ C to  $+70^{\circ}$ 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
	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

No	tes:					
1.	Size:					
	SNP-HF	A7/-A/-H	: 2" x -	4" x 1.32	"	
	SNP-HF	48/-A/-H	: 2" x -	4" x 1.34	"	
	SNP-HF					
	SNP-HF		: 2" x -	4" x 1.20	)"	
2.	Mounting					
	44.5 x 95	.3 (mm)				
3.	Connecto					
	AC input	: JST B2	P3-VH o	or equiva	lent	
	DC outpu			r equival	ent	
4.	Output Pin assignment:					
	1	2	3	4	]	
	GND	GND	Vo	Vo	1	
	UND	UND	vo	vo		
5.	Packing:					
	Net weig	ht: 165 g	g approx.	/ unit		
	Groce We	ight 15	5 kg app	rov / car	rton	80 unit

Gross weight: 15.5 kg approx. / unit Gross weight: 15.5 kg approx. / carton, 80 units / carton Carton size (mm): 382 (L) x 374 (W) x 277 (H)

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



## **Output Specifications:**

MODEL OUTPUT		LOAD				INITIAL	STEP EFFICIENCY			AVERAGE
NO.	RAIL	MIN.	RATED	MAX.	PEAK	ACCURACY	@ 20% LOAD	@ 50% LOAD	@ 100% LOAD	EFFICIENCY
SNP-HFA7 SNP-HFA7-A SNP-HFA7-H	+12V	0A	8.5A	10A	12.5A	+11.8V~+12.2V	85% 80%	86% 83%	87% 83%	86% 82%
SNP-HFA8 SNP-HFA8-A SNP-HFA8-H	+15V	0A	6.66A	8A	9.4A	+14.8V~+15.2V	85% 77%	86% 83%	87% 83%	86% 81%
SNP-HFA9 SNP-HFA9-A SNP-HFA9-H	+24V	0A	4.17A	5.42A	6.25A	+23.8V~+24.2V	85% 82%	86% 84%	87% 85%	86% 84%
SNP-HFAT SNP-HFAT-A SNP-HFAT-H	+48V	0A	2.1A	2.7A	2.92A	+47.8V~+48.2V	85% 81%	86% 86%	87% 86%	86% 84%

#### Note:

1. Standby Power Cosumption 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. 2. **Output Load:** 

100W for convection cooling; 130W for forced air cooling.

3. **Peak Load Duration:** Peak 150W can last for 5 sec.

4. **Isolation Grade:** 

4. Isolation Grade:

Primary $\longleftrightarrow$ Ground: 1MOPP (1500Vac)Primary $\longleftrightarrow$ Secondary: 2MOPP (4000Vac)Secondary $\longleftrightarrow$ Ground: 1MOPP (1500Vac)

5. Leakage Current:

Earth leakage current < 300uA

Touch current < 100uA

6. EMI Grounding:

If there is a metal sheet under the power supply, connect the EMI ground to that metal sheet.

7. 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-HFAx is for ITE & Medical applications which require standby mode.

SNP-HFAx-A is for ITE & Medical applications but without burst sound and no standby mode.

SNP-HFAx-H is for Home Healthcare application, input class II and EMI class B.

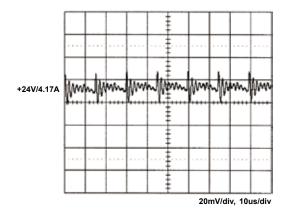
8. The safety application will be proceeded upon request.

-Jim-

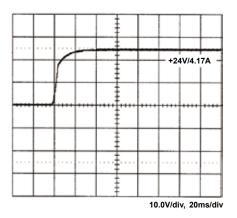


## **Performance for SNP-HFA9-A:**

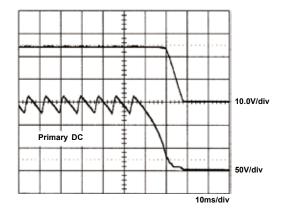
1. Switching frequency ripple



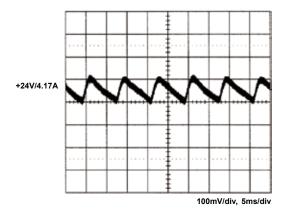
3. Output turn on wave form



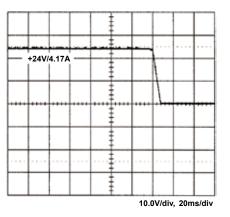
5. Hold-up time



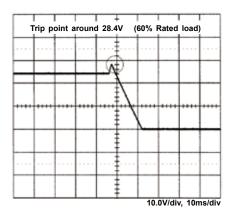
2. Line frequency ripple



4. Output turn off wave form



6. Over voltage protection

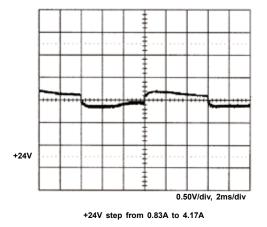




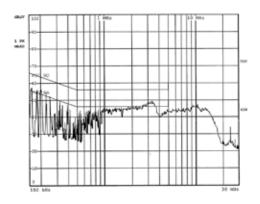
## Medical & ITE General Purpose

Rated100WMax.130WPeak150WSNP-HFA Series

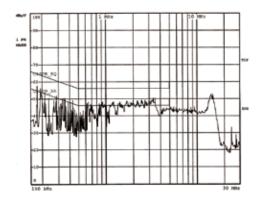
7. +24V step response



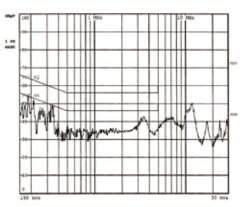
9. FCC B (Class II)



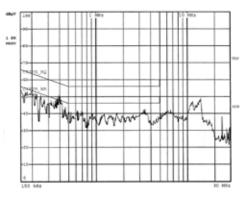
11. EN55011 22 B (Class II)



8. FCC B (Class I)



10. EN55011 22 B (Class I)



12. Power derating curve

