



x 5" x 1.18"/1.26"

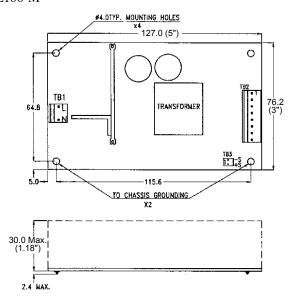
# **General Specifications:**

Input voltage	
Input frequency	
Inrush current	< 30A at 115VAC
(cold start at 25°C)	or < 60A at 230VAC
Efficiency	. 80%~90% depends on model
Hold up time	20ms typical
	at rated load and 115VAC
Over current protection	
Short circuit protection	auto recovery
Over voltage protection	latch off
Remote Sense comper	sates for 0.5V max. load drop

# **Mechanical Specifications:**

SNP-Z106-M

-Jim-



#### **Features:**

- With built-in PFC
- Only 1.26 inch height
- 4.8 Watt per cubic inch
- With Medical safety
- Efficiency between 80% to 90%
- Operation from 0°C to 50°C by convection

#### **Applications:**

- For medical device such as monitors.
- For peak power required system such as breath machine.

Earth leakage	250uA max. at 240VAC
Operating temperatur	re $0^{\circ}$ C to $50^{\circ}$ C convection
Cooling	free air convection for 100W
	with 18CFM forced air flow for 130W
Storage temperature	20°C to +85°C
EMI	FCC "B"
	EN55011 "B", EN61000-3-3
Harmonics	EN61000-3-2 class D
EMS	EN61000-4-2,-3,-4,-5,-6,-8,-11
Safety	UL 60601-1
•	CSA C22.2 No. 601.1-M90
	TEC (0(01 1 1000 A1 A2 (2 1)

IEC 60601-1: 1988 +A1+A2 (2nd) IEC 60601-1: 2005 (3rd)

#### **Notes:**

- SNP-Z106-M, Z107-M, Z108-M, Z109-M, Z10T-M, Z10H-M3" x 5" x 1.18" SNP-Z101-M, Z104-M, Z10K-M
- 3" x 5" x 1.26'
- Mounting Hole: 64.8 x 115.6 (mm)
- Connectors:

AC input : DC output : Molex 5277-02A or equivalent Molex 5273 or equivalent

Remote Sense: Molex 5045-02A or equivalent (for SNP-Z10x-M, x=6, 7, 8, 9, H, T) Molex 5045-02A or equivalent (for SNP-Z10x-M, x=1,4, K) Fan Output:

4. Output Pin assignment:

PIN NO.	1	2	3	4	5	6	7	8	9
SNP-Z101-M	+5V	+5V	+5V	GND	GND	GND	GND	+12V	-12V
SNP-Z104-M	+5V	+5V	+5V	GND	GND	GND	GND	+15V	-15V
SNP-Z10K-M	+12V	+24V	GND	GND	GND	GND	+5V	+5V	+5V
SNP-Z106-M	+5V	+5V	+5V	+5V	GND	GND	GND	GND	
Other Models	+V	+V	+V	GND	GND	GND			

Packing:

Net weight: 290 g approx. / unit Gross weight: 12.5 kg approx. / carton, 36 units / carton Carton size (mm): 339 (L) x 339 (W) x 327 (H)

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



# **Output Specifications:**

MODEL	OUTPUT	LOAD				VOLTAGE	RIPPLE	LINE	LOAD
NO.	RAIL	MIN.	RATED	MAX.	PEAK	ACCURACY	ACCURACY NOISE		REG.
SNP-Z106-M	+5V	0A	20A	26A		+4.95V~+5.05V	50mVpp	±0.5%	±1%
SNP-Z107-M	+12V	0A	9A	11A		+11.88V~+12.12V	100mVpp	±0.5%	±1%
SNP-Z108-M	+15V	0A	7A	8.7A		+14.85V~+15.15V	100mVpp	±0.5%	±1%
SNP-Z109-M	+24V	0A	4.5A	5.4A		+23.76V~+24.24V	100mVpp	±0.5%	±1%
SNP-Z10T-M	+48V	0A	2.1A	2.7A		+47.52V~+48.48V	150mVpp	±0.5%	±1%
	+5V	0.5A	10A	15A		+4.95V~+5.05V	50mVpp	±0.5%	±1%
SNP-Z101-M	+12V	0.05A	3A	4.1A		+11.40V~+12.60V	120mVpp	±0.5%	±5%
	-12V	0A	0.8A	1.1A		-11.40V~-12.60V	120mVpp	±0.5%	±5%
	+5V	0.5A	10A	15A		+4.95V~+5.05V	50mVpp	±0.5%	±1%
SNP-Z104-M	+15V	0.05A	2.5A	4.1A		+14.25V~+15.75V	150mVpp	±0.5%	±5%
	-15V	0A	0.8A	1.1A		-14.25V~-15.75V	150mVpp	±0.5%	±5%
SNP-Z10H-M	+28V	0A	3.8A	4.65A		+27.72 ~+28.28V	100mVpp	±0.5%	±1%
	+5V	0.5A	2.5A	4A		+4.95V~+5.05V	50mVpp	±0.5%	±1%
SNP-Z10K-M	+24V	0.05A	2.8A	4A		+22.8V~+25.2V	240mVpp	±0.5%	±5%
	+12V	0A	0.7A	1A		+11.4V~+12.6V	120mVpp	±0.5%	±5%

#### **Note:**

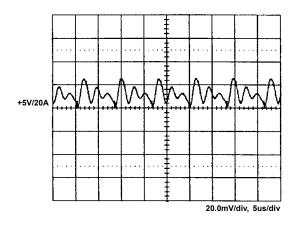
- 1. The total output current is rated load with free air convection and max. load with 18CFM of forced air flow over the unit.
- 2. At factory, in 60% rated load condition, each output is checked to be within voltage accuracy.
- 3. Line regulation is defined by changing  $\pm 10\%$  of input voltage from nominal line at rated load.
- 4. Load regulation is defined by changing ±40% of measured output load from 60% rated load at another output set to 60% rated load.
- 5. Ripple & noise is measured by using 15MHz bandwidth limited oscilloscope and terminated each output with a 0.47uF capacitor and a 47u electrolytic capacitor at rated load and nominal line.
- 6. Hold up time is measured from the end of the last charging pulse to the time which the main output drops down to low limit of main output at rated load and nominal line.
- 7. Efficiency is measured at rated load and nominal line.
- 8. Model Selection: SNP-Z10x-M is for medical application.

-Jim-

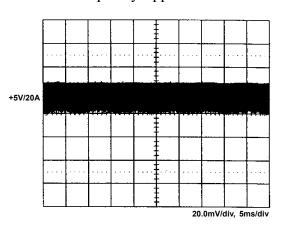


# **Performance for SNP-Z106-M:**

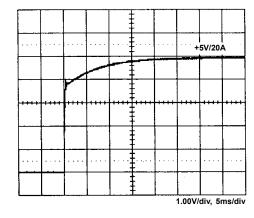
### 1. Switching frequency ripple



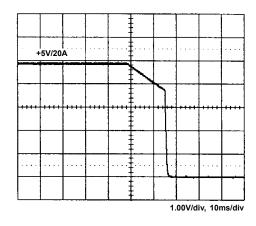
# 2. Line frequency ripple



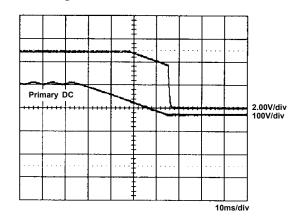
### 3. Output turn on wave form



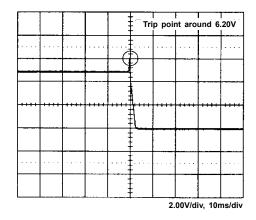
4. Output turn off wave form



### 5. Hold-up time



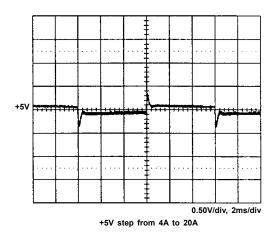
### 6. Over voltage protection



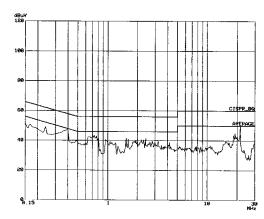
-Jim-



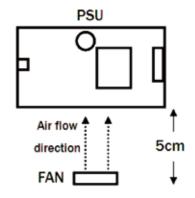
#### 7. +5V step response



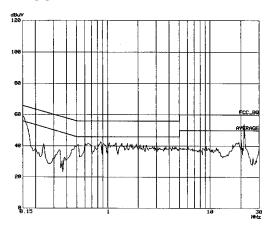
#### 9. CISPR 22 B



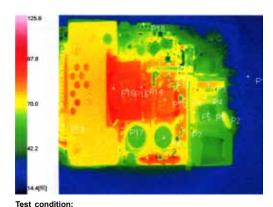
### 11. Max. load fan location



#### 8. FCC B

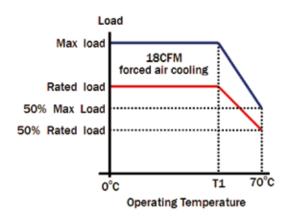


#### 10. Thermal profile



Test condition: M/N : SNP-Z106-M, Input : 244V Output : 5V/20A, Ambient : 23.5°C

#### 12. Power derating curve



-Jim-