



**3" x 5" x 1.18"/1.26"**

### General Specifications:

Input voltage ..... 90 VAC to 264 VAC  
 Input frequency ..... 47 Hz to 63 Hz  
 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 ..... auto recovery  
 Short circuit protection ..... auto recovery  
 Over voltage protection ..... latch off  
 Remote Sense ..... compensates for 0.5V max. load drop

### 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

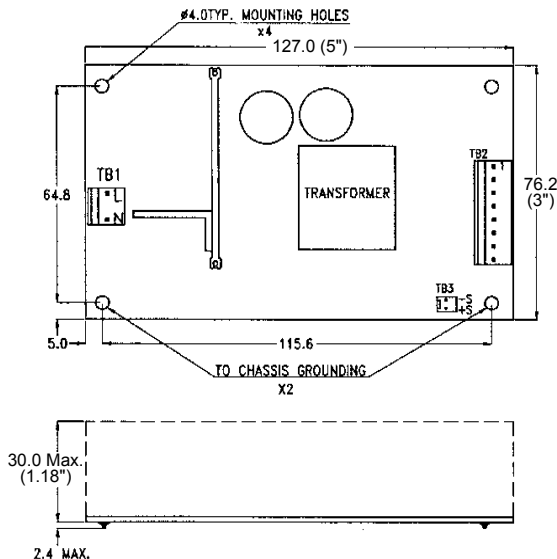
### Applications:

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

Earth leakage ..... 250uA max. at 240VAC  
 Operating temperature ..... 0°C to 50°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  
 IEC 60601-1 : 1988 +A1+A2 (2nd)  
 IEC 60601-1 : 2005 (3rd)

### Mechanical Specifications:

SNP-Z106-M



### Notes:

1. Size:  
 1.1 SNP-Z106-M, Z107-M, Z108-M, Z109-M, Z10T-M, Z10H-M  
 3" x 5" x 1.18"  
 1.2 SNP-Z101-M, Z104-M, Z10K-M  
 3" x 5" x 1.26"
2. Mounting Hole:  
 64.8 x 115.6 (mm)
3. Connectors:  
 AC input : Molex 5277-02A or equivalent  
 DC output : Molex 5273 or equivalent  
 Remote Sense : Molex 5045-02A or equivalent (for SNP-Z10x-M, x=6, 7, 8, 9, H, T)  
 Fan Output : Molex 5045-02A or equivalent (for SNP-Z10x-M, x=1, 4, K)
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			

5. 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:

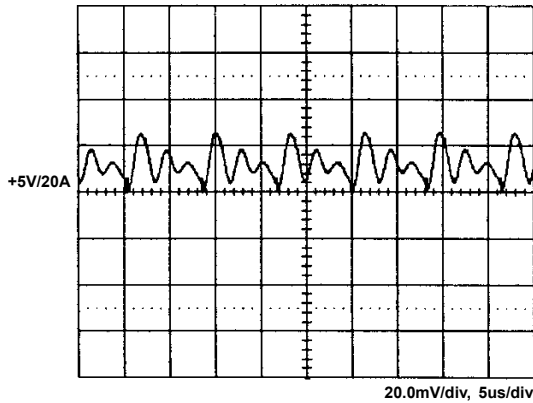
MODEL NO.	OUTPUT RAIL	LOAD				VOLTAGE ACCURACY	RIPPLE NOISE	LINE REG.	LOAD REG.
		MIN.	RATED	MAX.	PEAK				
SNP-Z106-M	+5V	0A	20A	26A		+4.95V~+5.05V	50mVpp	±0.5%	±1%
SNP-Z107-M	+12V	0A	9A	11A		+11.88V~+12.12V	100mVpp	±0.5%	±1%
SNP-Z108-M	+15V	0A	7A	8.7A		+14.85V~+15.15V	100mVpp	±0.5%	±1%
SNP-Z109-M	+24V	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%
SNP-Z101-M	+5V	0.5A	10A	15A		+4.95V~+5.05V	50mVpp	±0.5%	±1%
	+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%
SNP-Z104-M	+5V	0.5A	10A	15A		+4.95V~+5.05V	50mVpp	±0.5%	±1%
	+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%
SNP-Z10K-M	+5V	0.5A	2.5A	4A		+4.95V~+5.05V	50mVpp	±0.5%	±1%
	+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:

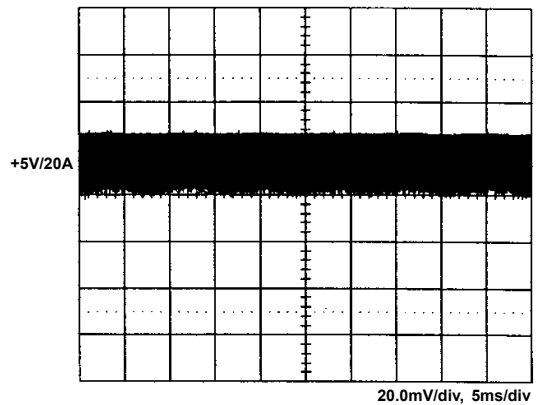
1. The total output current is rated load with free air convection and max. load with 18CFM of forced air flow over the unit.
2. At factory, in 60% rated load condition, each output is checked to be within voltage accuracy.
3. Line regulation is defined by changing ±10% of input voltage from nominal 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.

## Performance for SNP-Z106-M:

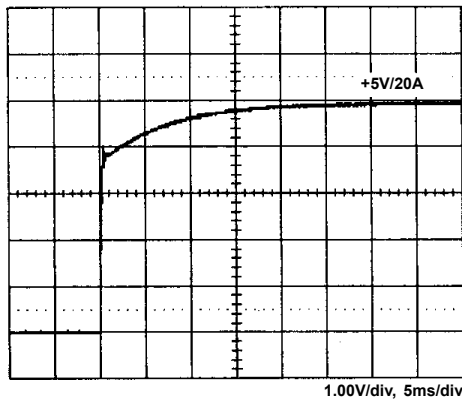
### 1. Switching frequency ripple



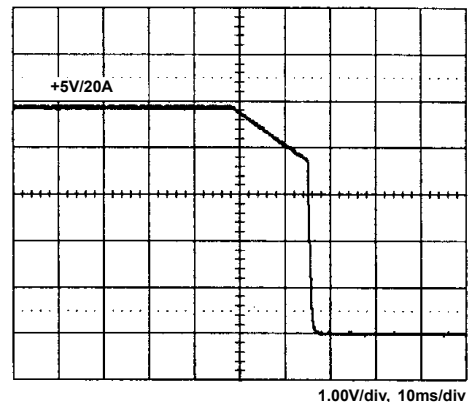
### 2. Line frequency ripple



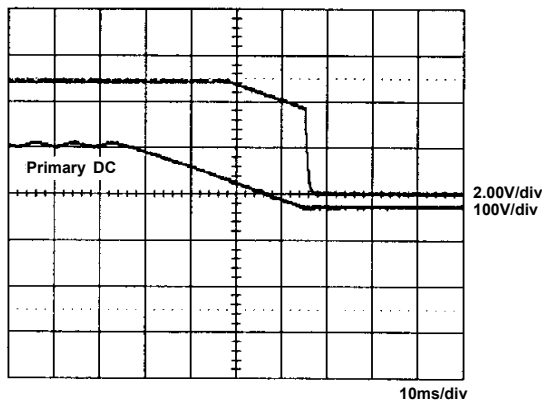
### 3. Output turn on wave form



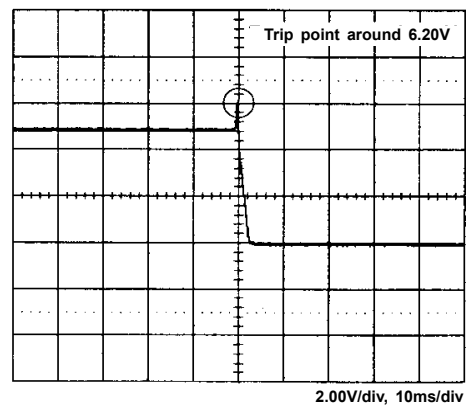
### 4. Output turn off wave form



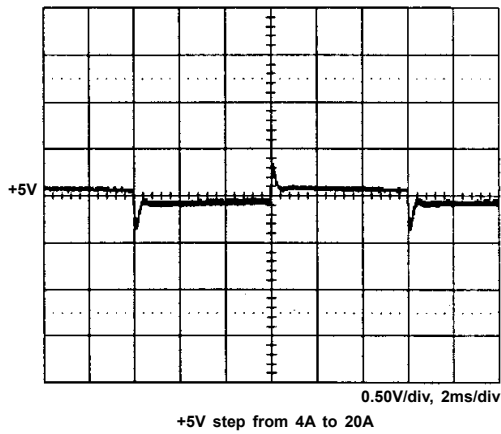
### 5. Hold-up time



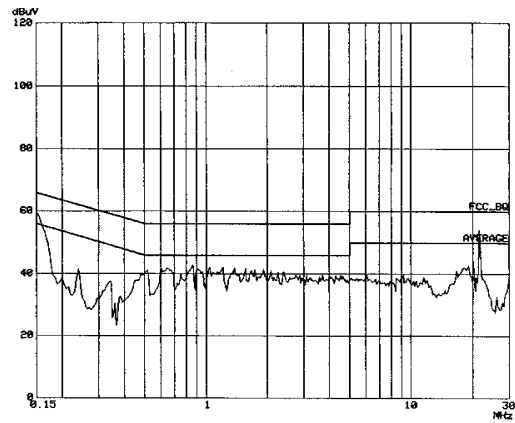
### 6. Over voltage protection



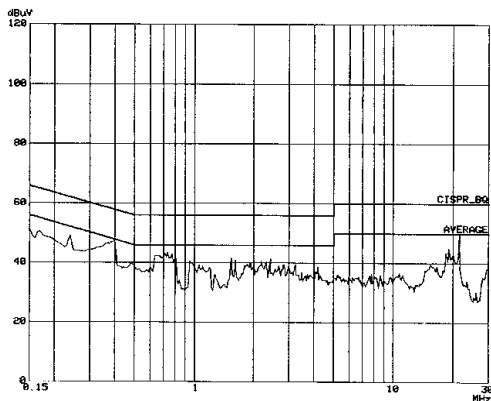
7. +5V step response



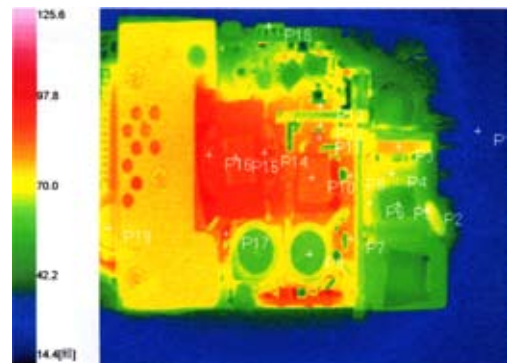
8. FCC B



9. CISPR 22 B

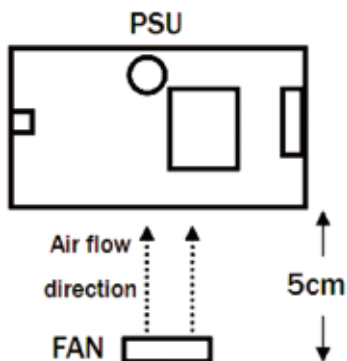


10. Thermal profile



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

11. Max. load fan location



12. Power derating curve

