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## **Medical Family**

Rated 100W SNP-Z10x-M Series



#### **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.

## **General Specifications:**

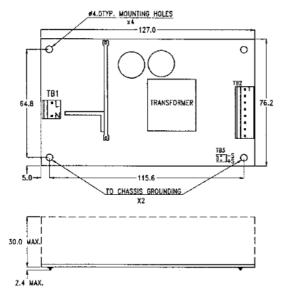
Input voltage Input frequency	
Inrush current	
(cold start at 25°C)	or < 60A at 230VAC
Efficiency	. 80%~90% depends on model
Hold up time	20ms typical
	at rated load and 115VAC
Over current protection	
Short circuit protection	
Over voltage protection	

Earth leakage	250uA max. at 240VAC
Operating temperatur	re0°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)
	IFC 60601-1 · 2005 (3rd)

## **Mechanical Specifications:**

SNP-Z106-M

-Steven-



#### Notes:

- 1. Dimensions shown in mm as left. Tolerance: ±0.4mm.
- 2.1 SNP-Z106-M, Z107-M, Z108-M, Z109-M, Z10T-M, Z10H-M 127.0 x 76.2 x 30 (mm) 5" x 3" x 1.18"
- 2.2 SNP-Z101-M, Z104-M, Z10K-M 127.0 x 76.2 x 32 (mm) 5" x 3" x 1.26"
- 3. 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)

4. Connectors:

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

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



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## **Output Specifications:**

MODEL	OUTPUT	LOAD				VOLTAGE	RIPPLE	LINE	LOAD
NO.	RAIL	MIN.	RATED	MAX.	PEAK	ACCURACY	NOISE	REG.	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	$120 \mathrm{mVpp}$	±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	$150 \mathrm{mVpp}$	±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 ±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.

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<sup>4-2 \*\*</sup> This data sheet is only for models selection. For business, engineering specification by model must be used. AUG. 2013

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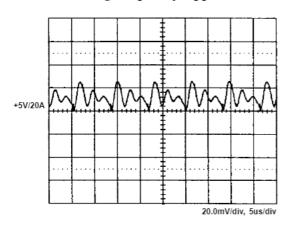


# **Medical Family**

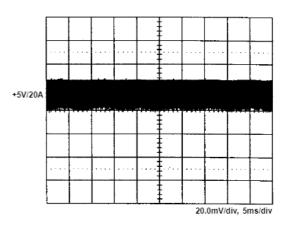
Rated 100W SNP-Z10x-M Series

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

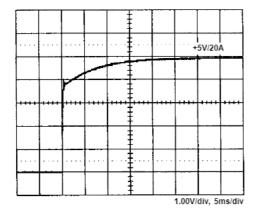
1. Switching frequency ripple



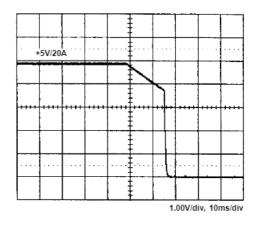
2. Line frequency ripple



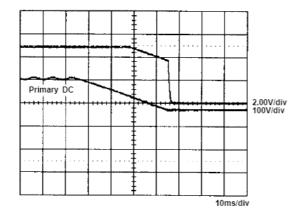
3. Output turn on wave form



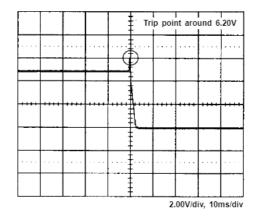
4. Output turn off wave form



5. Hold-up time



6. Over voltage protection



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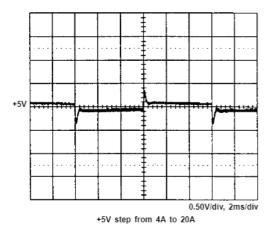
3/4



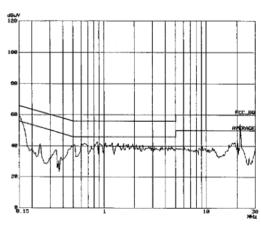
# **Medical Family**

Rated 100W SNP-Z10x-M Series

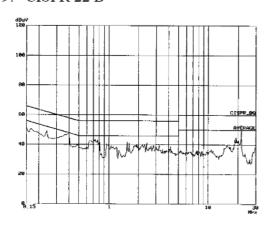
## 7. +5V step response



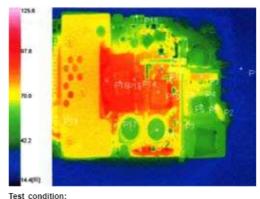
8. FCC B



## 9. CISPR 22 B

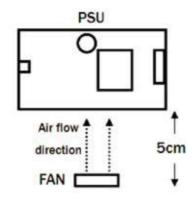


10. Thermal profile

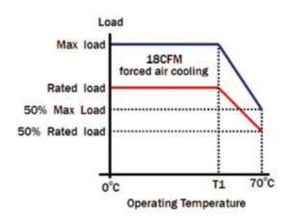


Test condition: M/N: SNP-Z106-M, Input: 244V Output: 5V/20A, Ambient: 23.5°C

#### 11. Max. load fan location



#### 12. Power derating curve



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4-4

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