



**Description:**

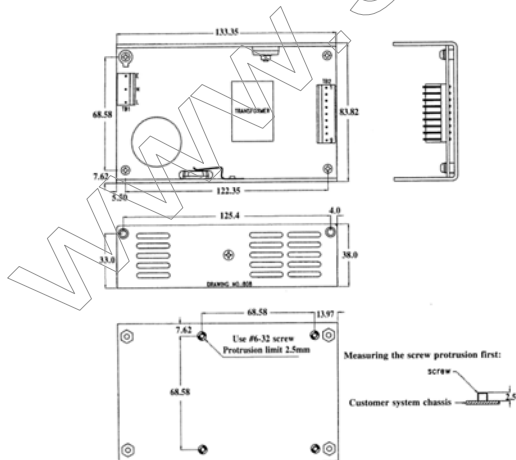
The SNP-8086-M is a dual output switching power supply. It is designed to meet medical international safety standard, for use patient care equipment, but not patient connection.

**General Specifications:**

- Input voltage .....85VAC to 264VAC
- Input frequency .....47Hz to 63Hz
- Inrush current (cold start) ..... 30A at 115VAC  
60A at 230VAC
- Outputs ..... see output table
- Efficiency ..... >70%
- Hold up time ..... 16mS typ. at 115VAC
- Over voltage protection ..... Crowbar
- Short circuit protection ..... Hiccup mode

- Operating temperature ..... 0 to 50°C, rated load  
forced air 25CFM
- Storage temperature ..... -20°C to +70°C
- Ripple and noise ..... < 1%
- EMI ..... Meet FCC docket 20780 curve "B"  
EN55011 "B"
- EMS ..... Meet IEC-801-2 level 3 8KV air discharge  
IEC-801-3 level 3 3V/M, IEC-801-4 level 3 2KV  
IEC-801-5 level 3 2KV
- Safety ..... Meet UL 2601-1  
CSA 22.2 No. 601, TUV EN 60601-1

**Mechanical Specifications:**



**NOTE:**

1. Dimensions shown in mm (inch) as above.  
Tolerance specified is  $\pm 0.4$  mm between mounting holes, and  $\pm 0.8$  mm for other dimension.
2. P.C.B. Size:  
83.82mm X 133.35mm X 38mm
3. Connectors:  
TB1 -- AC input : Molex 5273-05A withdraw 2 pins or equivalent.  
TB2 -- DC output : Molex 5273-09A or equivalent.
4. DC output Pin Assignment
 

Pin 1. +5V	5. GND	9. +12V
2. +5V	6. GND	
3. +5V	7. GND	
4. GND	8. +12V	



## Output Specifications

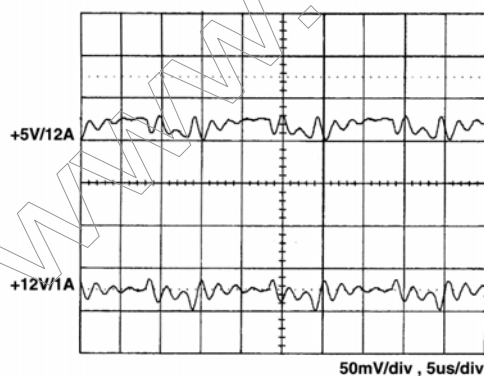
MODEL NO.	OUTPUT RAIL	LOAD			VOLTAGE ACCURACY	RIPPLE NOISE	LINE REG.	LOAD REG.
		MIN.	RATED	MAX.				
SNP-8086-M	+5V	2A	12A	16A	+5.05V~+5.15V	1%	±1%	±1%
	+12V	0A	1A	1.5A	+11.25V~+12.75V	1%	±1%	+6% / -3%

### Note:

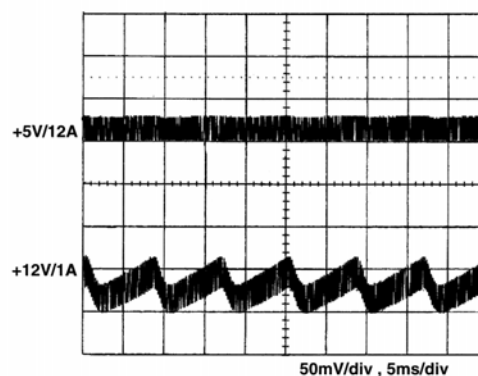
1. Each output can provide up to max. load separately when the power supply starts up. Continuous staying in more than rated load is not allowed.
2. At factory, in 60% rated load condition, each output is checked to be within voltage accuracy.
3. Line Regulation is defined by changing  $\pm 10\%$  of input voltage from nominal line at rated load.
4. Load regulation is defined by changing  $\pm 40\%$  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 0.47 $\mu$ F 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, without output cable.

### Performance for SNP-8086-M (input voltage is 115VAC, unless others specified.)

#### 1. Switching frequency ripple

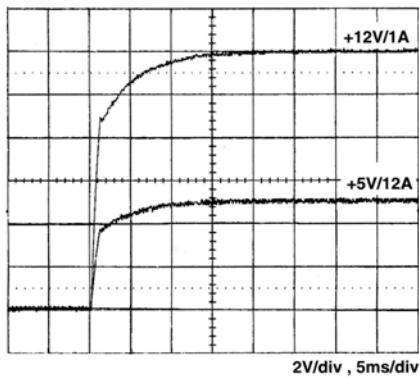


#### 2. Line frequency ripple

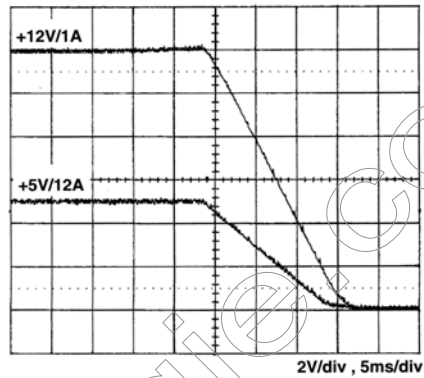




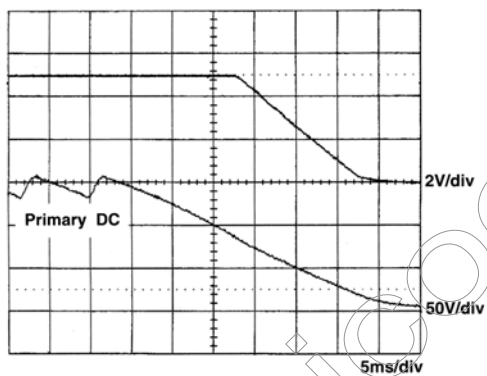
3. Output turn on wave form



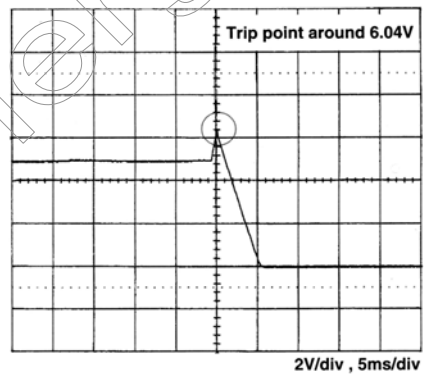
4. Output turn off wave form



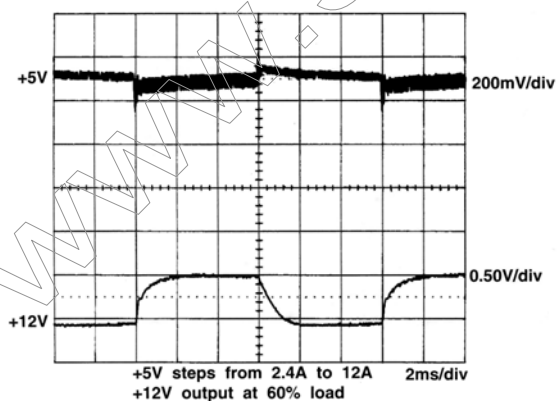
5. Hold-up time



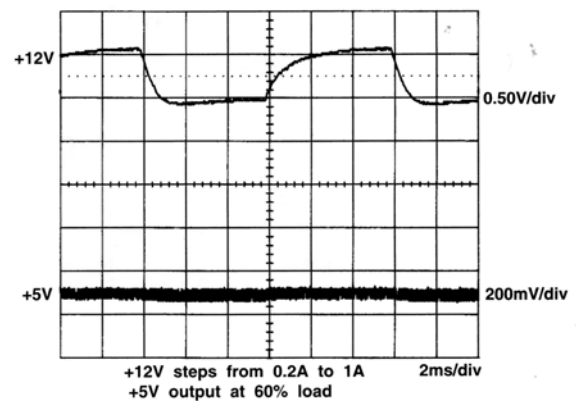
6. Over voltage protection



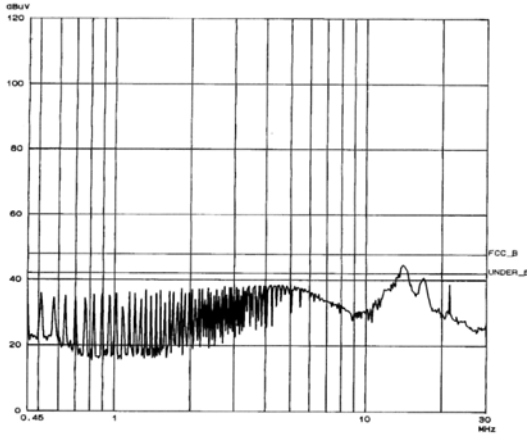
7. +15V step response



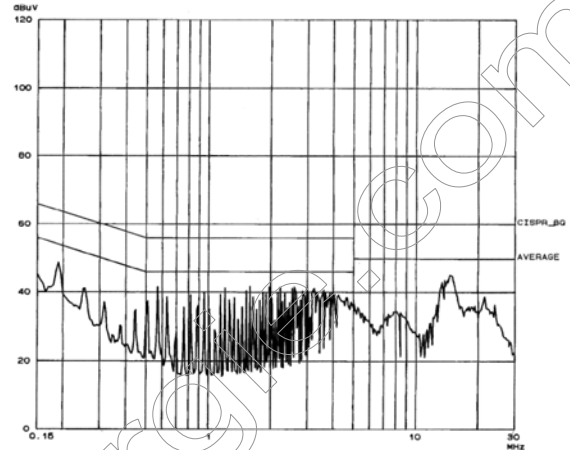
8. +12V step response



9. EMI performance



FCC "B"



EN55011 "B"

10. Thermal profile

Test conditions :

Input : 230VAC

Loading : +5V/12A, +12V/1A

Ambient : 21.8°C

