

Description:

This series is a 110 watts, universal input and small sized switching mode power supply. It has been designed to meet the safety ground leakage current requirements laid down by EN 60601-1 and UL 2601-1. It is ideal for small digitally based systems used in medical and dental patient environments.

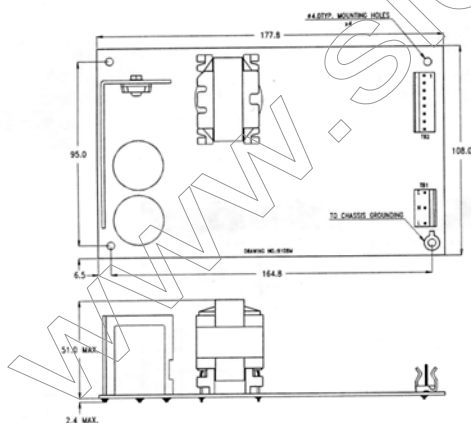
General Specifications:

Input voltage 85VAC to 264VAC
or 120VDC to 370VDC
Input frequency 47Hz to 440Hz
Inrush current less than 30A at 115VAC
(Cold start) less than 60A at 230VAC
Outputs see output table
Efficiency 70% typical
at rated load and 115VAC
Hold up time >16mS
at rated load and 115VAC
Over load protection Auto-recovery

Short circuit protection Auto-recovery
Over voltage protection Latch-off
Operating temperature 0 to 50°C, rated load
Cooling Free air convection
Storage temperature -40°C to +85°C
Switching frequency 60KHz typical
EMI Meet FCC docket 20780 curve "B"
EN55011 "B", EN61000-3-2
EMS IEC-801-2,-3,-4
Safety UL 2601-1
CSA 22.2 NO. 601
EN60601-1

Mechanical Specifications:

SNP-9108-M



NOTE:

- Dimensions shown in mm (inch) as left. Tolerance specified is ± 0.4 mm.
- P.C.B. Size:
108 x 177.8 x 44 (mm)
4.25 x 7 x 1.73 (inch)
- Mounting Hole:
95 x 164.8 (mm)
3.74 x 6.48 (inch)
- Connectors:
TB1 : Molex 5277-5A withdraw 2 pins or equivalent for AC input
TB2 : Molex 5273-08A or equivalent for DC output
- DC output Pin Assignment

PIN	1	2	3	4	5	6	7	8
MODEL								
SNP-9107-M	+12V	+12V	+12V	+12V	GND	GND	GND	GND
SNP-9108-M	+15V	+15V	+15V	+15V	GND	GND	GND	GND
SNP-9109-M	+24V	+24V	+24V	+24V	GND	GND	GND	GND

**Output Specifications:**

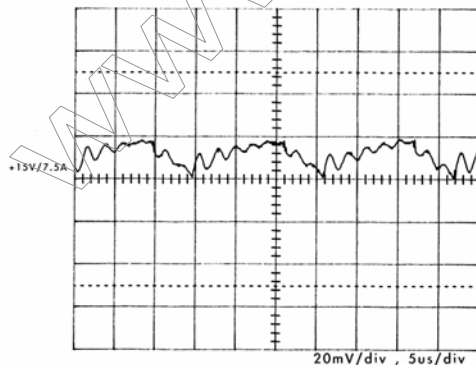
MODEL NO.	OUTPUT RAIL	LOAD			VOLTAGE ACCURACY	RIPPLE NOISE	LINE REG.	LOAD REG.
		MIN.	RATED	PEAK				
SNP-9107-M	+12V	0A	9.2A	15A	+11.9V~+12.1V(adj.)	100mVpp	±1%	±1%
SNP-9108-M	+15V	0A	7.5A	12A	+14.85V~+15.15V(adj.)	100mVpp	±1%	±1%
SNP-9109-M	+24V	0A	5A	6.5A	+23.8V~+24.2V(adj.)	240mVpp	±1%	±1%

Note:

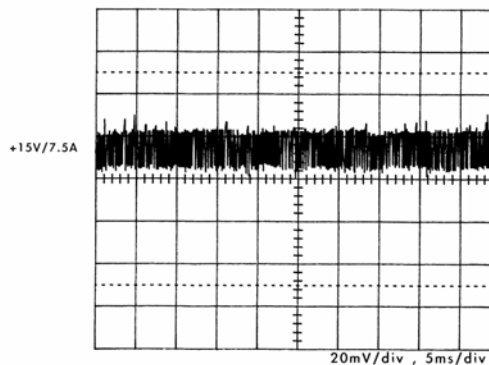
- Each output can provide up to peak load temporarily. Continuous staying in more than rated load will reduce the reliability.
- Voltage accuracy is measured with all outputs set at 60% rated load and main output is adjusted to +/- 1%.
- Line Regulation measuring is done at rated loading and + -10% of input voltage changing.
- Load Regulation measuring is done by changing the measured output loading + -40% from 60% rated load, and keep all other outputs at 60% rated load.
- Ripple & Noise measuring is done by 15MHz band width limited oscilloscope and terminated each output with a 0.47uF capacitor at rated loading.
- Efficiency is measured at rated load.
- Hold Up Time is measured from the end of the last full charging pulse to when the main output drop down to 95% output voltage.

Performance for SNP-9108-M:

1. Switching frequency ripple

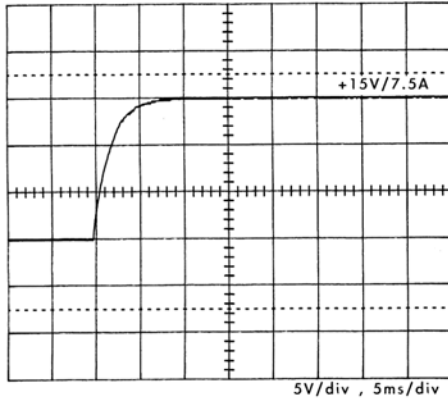


2. Line frequency ripple

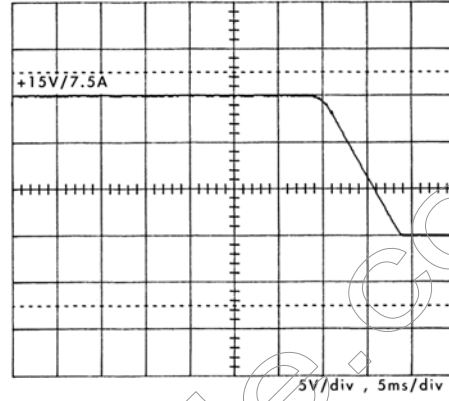




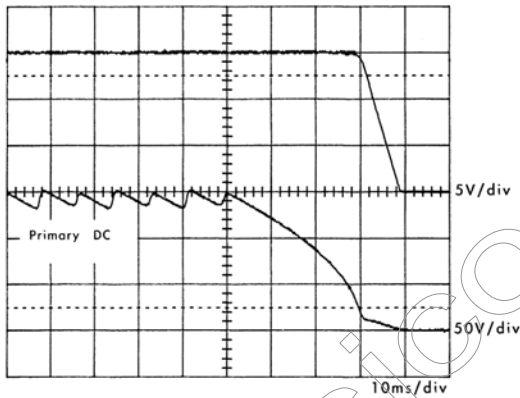
3. Output turn on wave form



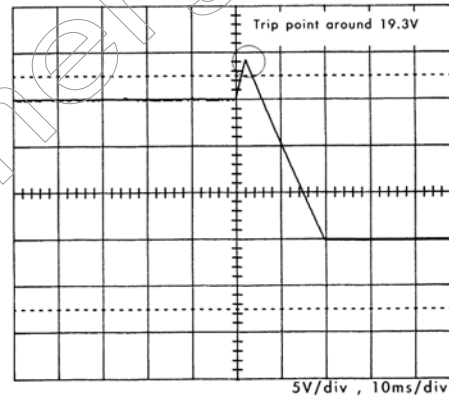
4. Output turn off wave form



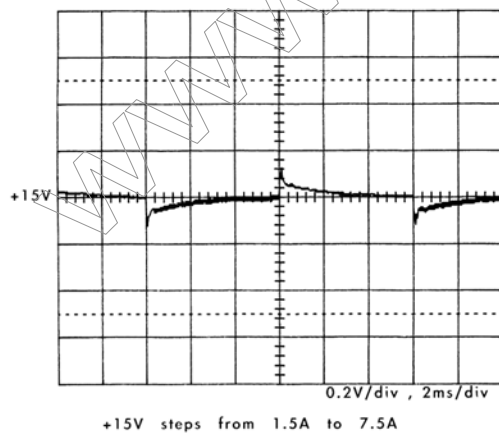
5. Hold-up time



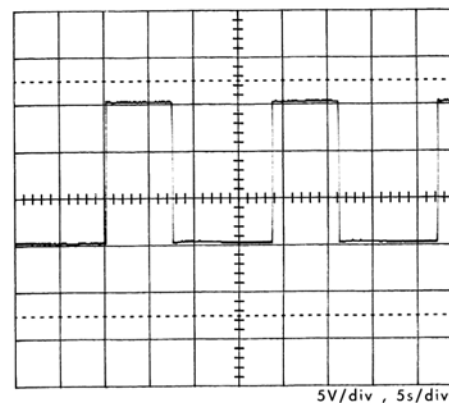
6. Over voltage protection



7. +5V step response

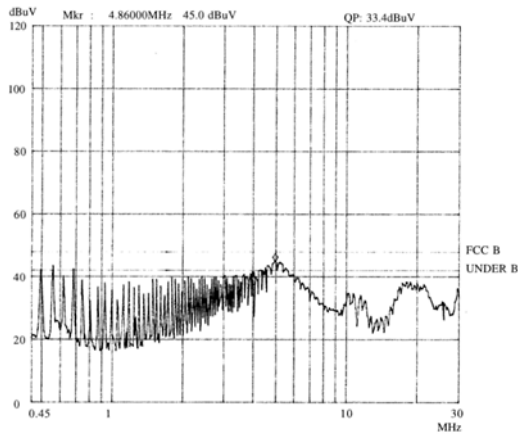


8. Peak load

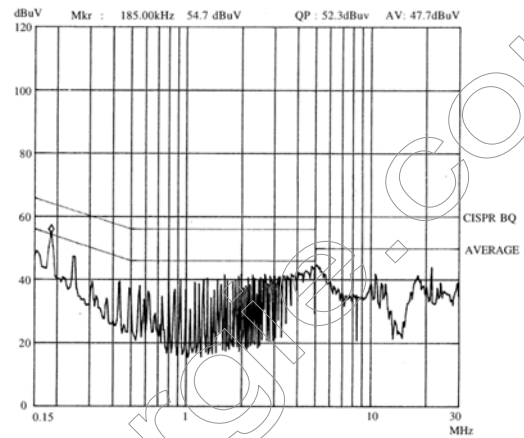




9. FCC B



10. EN55011 B



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