



## General Specifications:

Input voltage .....	90VAC to 270VAC
Input frequency .....	47Hz to 63Hz
Inrush current .....	less than 60A at 220VAC cold start, 25°C
Efficiency .....	73% typical depending on model
Hold up time .....	> 16mS at rated load and 115VAC
Over load protection .....	auto recovery

## Description:

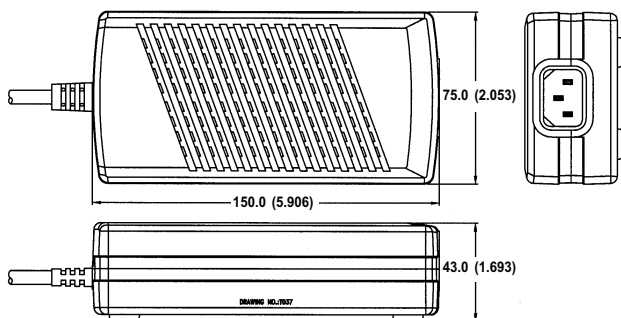
SNP-T03 / SNP-T04 series is an universal with various options of outputs in plastic box which is with color options of either black or beige. It is designed in full compliance with UL, CSA, and VDE regulations.

## Model available:

- SNP-T031 for 5V/2A, 12V/1.5A, -12V/0.3A
- SNP-T033 for 5V/2A, 12V/1.5A
- SNP-T035 for 18V/2A
- SNP-T036 for 5V/5A
- SNP-T037 for 12V/2.5A
- SNP-T038 for 15V/2A
- SNP-T039 for 24V/1.5A
- SNP-T03M for 9V/1.7A, -9V/1.7A
- SNP-T03N for 5V/3A, -5V/3A
- SNP-T041 for 5V/7A, 12V/0.5A, -12V/0.1A

Short circuit protection .....	auto recovery
Operating temperature .....	0°C to 50°C, rated load
Cooling .....	free air convection
Storage temperature .....	-20°C to +85°C
EMI .....	FCC docket 20780 class "B" Vfg 243/1991
Safety .....	meet UL 1950 CSA 22.2 No. 234 EN 60950

## Mechanical Specifications:



### Note:

1. Dimensions shown in mm (inch) as left.  
150 X 75 X 43 (mm)
  2. Packing:  
Net weight: 420 g approx. / unit  
Gross weight: 10.5 kg approx. / carton, 20 units / carton  
Carton size (mm): 503 (L) x 362 (W) x 300 (H)
  3. Connectors:  
AC input : IEC 320/CEE 22 standard  
DC output : according to final spec.\*
  4. Power on indicator  
Green light
  5. Color  
Black for both plastic box and DC output cable, black for AC inlet
- \* Options available for DC output connector if the detailed specifications can be provided.

### Output Specifications:

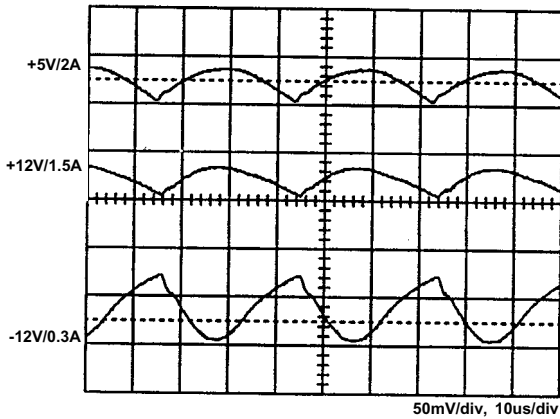
MODEL NO.	OUTPUT RAIL	LOAD			VOLTAGE ACCURACY	RIPPLE NOISE	LINE REG.	LOAD REG.
		MIN.	RATED	PEAK				
30W								
SNP-T031	+5V +12V -12V	0A 0A 0A	2A 1.5A 0.3A	3A 2.4A 0.5A	+4.95V~+5.05V +11.4V~+12.6V -11.8V~-13.2V	50mV 120mV 120mV	±1% ±1% ±1%	±3% ±5% ±5%
SNP-T033	+5V +12V	0A 0A	2A 1.5A		+4.95V~+5.05V +11.4V~+12.6V	50mV 120mV	±1% ±1%	±3% ±5%
SNP-T035	+18V	0A	2A		+16.2V~+19.8V	100mV	±1%	±3%
SNP-T036	+5V	0A	5A		+4.90V~+5.10V	50mV	±1%	±7%
SNP-T037	+12V	0A	2.5A		+11.4V~+12.6V	100mV	±1%	±3%
SNP-T038	+15V	0A	2A		+14.25V~+15.75V	100mV	±1%	±3%
SNP-T039	+24V	0A	1.5A		+22.8V~+25.2V	100mV	±1%	±3%
SNP-T03M	+9V -9V	0A 0A	1.7A 1.7A		+8.91V~+9.09V -8.55V~-9.45V	90mV 90mV	±1% ±1%	±5% ±8%
SNP-T03N	+5V -5V	0.5A 0.5A	3A 3A		+4.90V~+5.20V -4.95V~-5.15V	50mV 50mV	±2% ±2%	±3% ±5%
40W								
SNP-T041	+5V +12V -12V	1A 0.1A 0A	7A 0.5A 0.1A	0.3A	+4.95V~+5.15V +11.4V~+12.6V -11V~-13.2V	70mV 50mV 50mV	±2% ±2% ±2%	±3% ±5% ±10%

### Note:

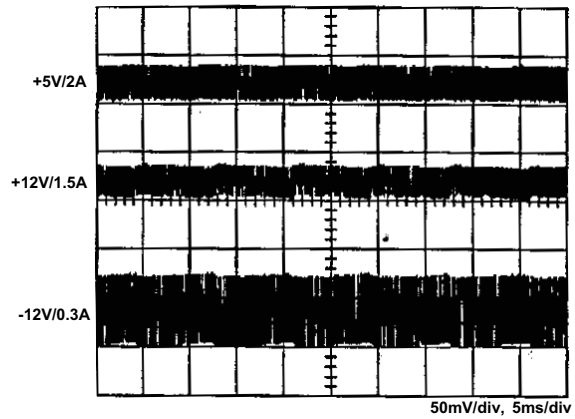
1. Each output can provide up to peak load separately when the power supply starts up. Continuous staying in more than rated load is not allowed.
2. At factory, in 60% rated load condition, each output is checked to be within voltage accuracy.
3. Line Regulation is defined by changing  $\pm 10\%$  of 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 0.47uF 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-T031:

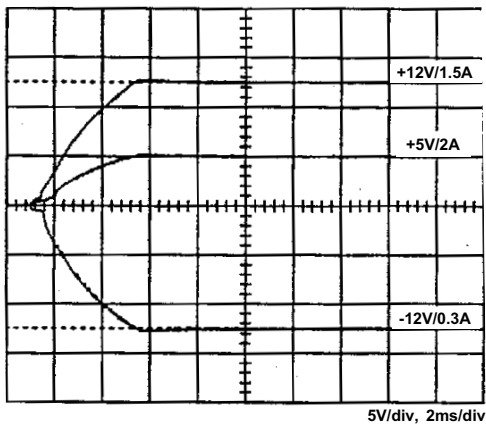
### 1. Switching frequency ripple



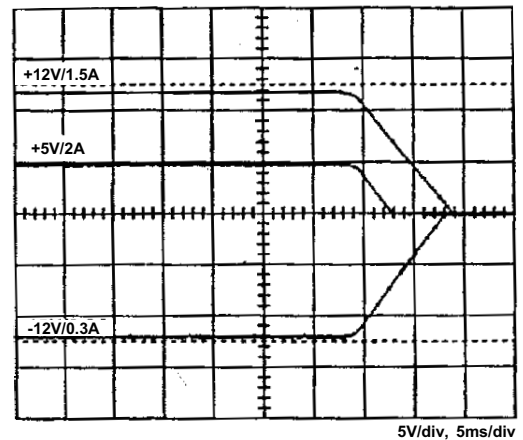
### 2. Line Frequency ripple



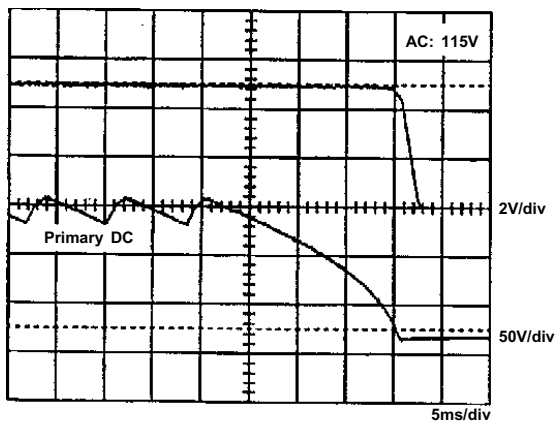
### 3. Output turn on wave form



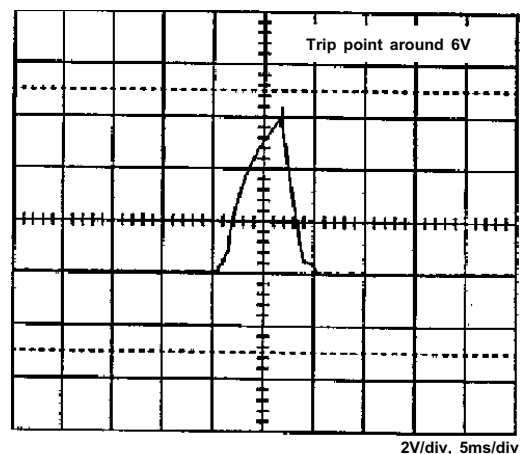
### 4. Output turn off wave form



### 5. Hold-up time

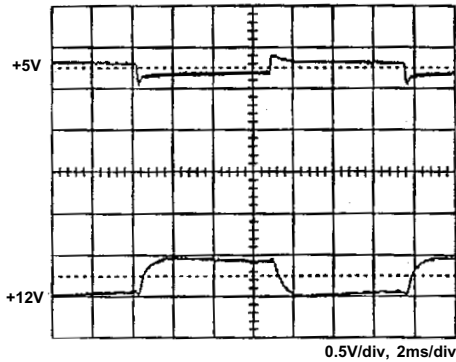


### 6. Over voltage protection



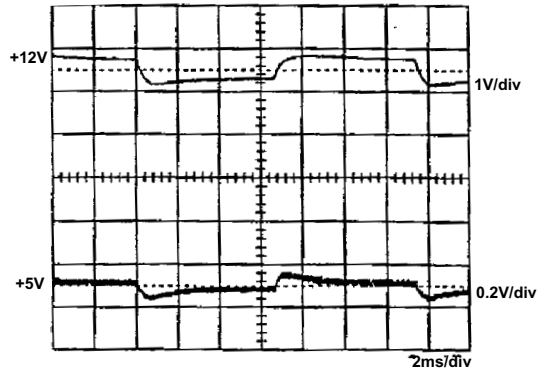
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### 7. +5V step response



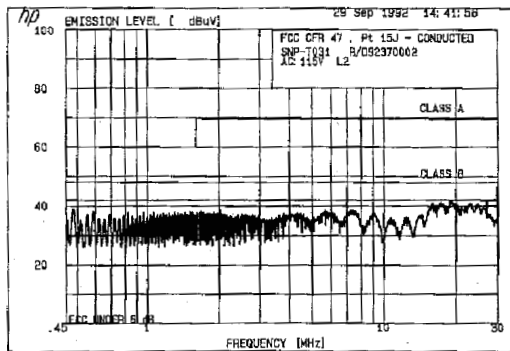
+5V steps from 0.4A to 2A  
other output at 60% load

### 8. +12V step response



+12V steps from 0.3A to 1.5A  
other output at 60% load

### 9. FCC B performance



### 10. VFG 243 performance

