Switching Adapter

$78 \times 167 \times 47$ (mm)

## General Specifications:

Input frequency ............................................. 47 Hz to 63 Hz
Inrush current ............................................ $<35 \mathrm{~A}$ at 115 VAC
(cold start at $25^{\circ} \mathrm{C}$ ) or $<70 \mathrm{~A}$ at 230 VAC
Efficiency ....................... 85\%~90\% depends on the models
Holdup time $\qquad$ .$>22 \mathrm{~ms}$ at rated load and 115 VAC
Average efficiency $\qquad$ $>87 \%$ at $25 \%, 50 \%, 75 \%, 100 \%$ of rated load and $115 \mathrm{VAC} / 230 \mathrm{VAC}$ input
No-load input power $\qquad$ $<0.5 \mathrm{~W}$ at 230 VAC input
Energy saving energy star version 2.0 level V
Over voltage protection latch off

## Features:

- External Desktop Adaptor
- With ITE \& Medical safety
- Built-in active PFC
- No load input power $<0.5 \mathrm{~W}$
- Energy Star V2.0 level V


## Applications:

- For patient contact medical device such as Breath Machine.
- For power saving required system such as LCD Monitor.

Short circuit protection.....................................auto recovery
Over load protection ........................................auto recovery
DC OK indicator ................................................. green LED
Operating temperature ........................................ $0^{\circ} \mathrm{C}$ to $40^{\circ} \mathrm{C}$
Cooling .................................................. free air convection
Storage temperature ..................................... $-20^{\circ} \mathrm{C}$ to $+85^{\circ} \mathrm{C}$
EMI ................................................................FCC class "B"
CISPR22 level "B"
Harmonics .......................................... EN61000-3-2 class D
EMS .................................. EN61000-4-2, -3, -4, -5,-6,-8-11
Safety ................................................. UL60950-1 : (cULus)
EN 60950-1 : 2006 +A11 (TUV)
ANSI/AAMI ES60601-1 : 2005 (cULus) EN 60601-1 : 2006 (TUV)

## Notes:

1. Size:
$78 \times 167 \times 47$ (mm)
2. Connectors:

AC input: IEC 320 Inlet C14 (Class I)
DC output : 4 pin Hosiden equivalent plug


Note: Other type available by customer requested
3. Output cable length: $90 \sim 150 \mathrm{~cm}$
4. DC OK LED: Green light on top of box
5. Box color: Black
6. Packing:

Net weight: 636 g approx. / unit
Gross weight: 13 kg approx. / carton, 16 units / carton
Carton size (mm): 533 (L) x 326 (W) $\times 327$ (H)

## Output Specifications:

| MODEL NO. | OUTPUT <br> RAIL | LOAD |  |  |  | VOLTAGE <br> ACCURACY | RIPPLE <br> NOISE | $\begin{aligned} & \text { LINE } \\ & \text { REG. } \end{aligned}$ | $\begin{aligned} & \text { LOAD } \\ & \text { REG. } \end{aligned}$ | EFFICIENCYTYPICAL |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | MIN | RATED | MAX. | PEAK |  |  |  |  |  |
| SNP-A107 | $+12 \mathrm{~V}$ | 0A | 7.5A |  | 9A | +11.40V $\sim+12.60 \mathrm{~V}$ | 100mVpp | $\pm 0.5 \%$ | $\pm 3 \%$ | 87\% |
| SNP-A108 | $+15 \mathrm{~V}$ | 0A | 6A |  | 7.2A | $+14.25 \mathrm{~V} \sim+15.75 \mathrm{~V}$ | 100 mVpp | $\pm 0.5 \%$ | $\pm 3 \%$ | 87\% |
| SNP-A105 | +18V | 0A | 5A |  | 0A | +17.1V $\sim+18.9 \mathrm{~V}$ | 100 mVpp | $\pm 0.5 \%$ | 3\% | 87\% |
| SNP-A109 | $+24 \mathrm{~V}$ | 0A | 3.8A |  | 5A | $+22.80 \mathrm{~V} \sim+25.20 \mathrm{~V}$ | 100 mVpp | $\pm 0.5 \%$ | $\pm 3 \%$ | 87\% |
| SNP-A10T | +48V | 0A | 2A |  | 2.4A | $+45.60 \mathrm{~V} \sim+50.40 \mathrm{~V}$ | 200 mVpp | $\pm 0.5 \%$ | $\pm 3 \%$ | 87\% |

## Note:

1. At peak load, the output can last for 10 seconds without shut down.
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.
5. Ripple \& noise is measured by using 20 MHz bandwidth limited oscilloscope and terminated each output with a $0.47 \mathrm{uF}+47 \mathrm{uF}$ 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-A10x is for both of ITE application and medical application.

Performance for SNP-A107 (input voltage is 115VAC, unless others specified):

1. Switching frequency ripple

$50 \mathrm{mV} / \mathrm{div}, 10 \mathrm{us} / \mathrm{div}$
2. Output turn on wave form

3. Hold up time

4. Line frequency ripple

$50 \mathrm{mV} / \mathrm{div}, 5 \mathrm{~ms} / \mathrm{div}$
5. Output turn off wave form

6. Over voltage protection

7. +12 V step response

8. FCC B

9. Peak load

10. EN 55011 B

