SPECIFICATION

and

PERFORMANCE

for

SWITCHING POWER SUPPLY

M/N : SNP-A125-M

Reviewed by Project Manager	梁進添 2-11-04	梁進添 8-5-04	梁進添 12-01-04	梁進添 4-11-05	梁進添 6-15-06	12-21-18
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SKYNET ELECTRONIC				LAST REV. NO.		

1.0 INTRODUCTIONS

SNP-A125-M is a single output, Universal AC input, External Desktop switching power supply with conformity to EN61000-3-2 harmonic and UL2601, IEC601 Medical regulations, It is specially designed by using ZVS technology.
In this power supply, one patented circuit, US pat 6, 507, 500B2 is designed in.

2.0 INPUT SPECIFICATIONS

2.1 Input Voltage
The range of input voltage is from 90VAC to 264VAC, normal line is 115VAC/230VAC.

2.2 Input frequency
The range input frequency is from 47Hz to 63Hz.

2.3 Input current
The maximum input current is 3A at 115VAC or 1.5A at 230VAC.

2.4 Inrush current
The inrush current will not exceed 30A at 115VAC input or 60A at 230VAC AC input, cold start, 25°C.

2.5 Power Factor Correction
0.95 is minimum at full load and 115VAC input voltage.

2.6 Input leakage current
The leakage current is less than 300uA at 240VAC.

3.0 OUTPUT SPECIFICATIONS

3.1 Load range

output	min. load	rated load	peak load	voltage accuracy
+18V	0A	6.5A	9A	17.10V to 18.90V

At factory, the output is adjusted to +18V + -1% at 60% of rated load and normal line.
* **peak load** of 9A can last 5 sec. only at start up, 115/230VAC.

3.2 Ripple and noise
The peak to peak ripple and noise for all the outputs is less than 100mV at rated load and normal line input, Measuring is done by 15MHz band width limited oscilloscope and terminated each output with a 0.47uF capacitor.

3.3 Line regulation
The line regulation is better than + -1% while measuring at rated load and + -10% of normal line input voltage changing.

3.4 Load regulation
The load regulation is better than + -3%. Measuring is done by changing the measured output load + -40% from 60% rated load and normal line.

4.0 GENERAL FEATURES

4.1 Efficiency

The efficiency is than 85% typ. while measuring at normal line and rated load.

4.2 Hold up time

The hold up time is longer than 16mS at 115VAC input and rated load, which is measured from the end of the last charging pulse to when the main output drops down to 95% output voltage.

4.3 Protection

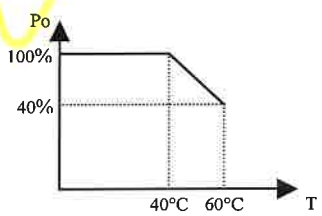
For some reason the power supply fails to control itself, the build-in over voltage protection circuit will shut down the outputs to prevent damaging external circuits. The trip point of crowbar circuit is around 20V to 23V.

The power supply will go into hiccup mode against short circuit or overload conditions, and will do auto-recovery while faulty conditions are removed.

5.0 ENVIRONMENT SPECIFICATIONS

5.1 Operating temperature

0°C to 40°C



5.2 Storage temperature

-20°C to 85°C

5.3 Altitude

Will operate properly at any altitude between 0 to 10000ft.

6.0 INTERNATIONAL STANDARDS

6.1 Safety standards

Designed to meet the following standards :

UL 60601-1

CSA 22.2 NO. 601.1

EN 60601-1

6.2 EMI standards

Designed to meet the following limits :

FCC docket 20780 curve "B"

EN55011 class "B"

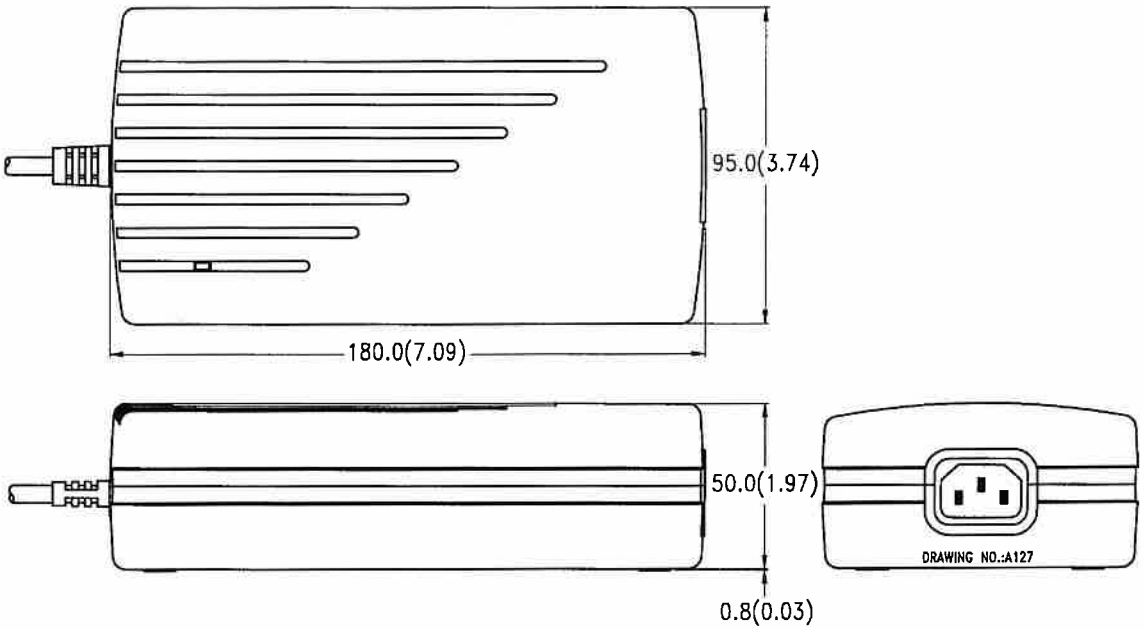
EN61000-3-2 class D

6.3 EMS standards

Designed to meet :

EN61000-4-2	8KV contact, 15KV air discharge	Criterion A
EN61000-4-3	10V/M with 80% AM	Criterion A
EN61000-4-4	2KV (100KHz)	Criterion A
EN61000-4-5	2KV	Criterion A
EN61000-4-6	10V with 80% AM	Criterion A
EN61000-4-8	30A/M	Criterion A
EN61000-4-11	30% dips 500ms	Criterion A
	60% dips 200ms	Criterion B
	100% dips 10ms	Criterion A
	100% dips 5000ms	Criterion B
	100% dips 20ms	Criterion B

7.0 MECHANICAL SPECIFICATION



7.1 Dimensions

Dimensions shown in mm(inch) as above.Tolerance specifed is +-1mm.

7.2 Connectors

AC inlet : Meet IEC320/CEE 22 standard.

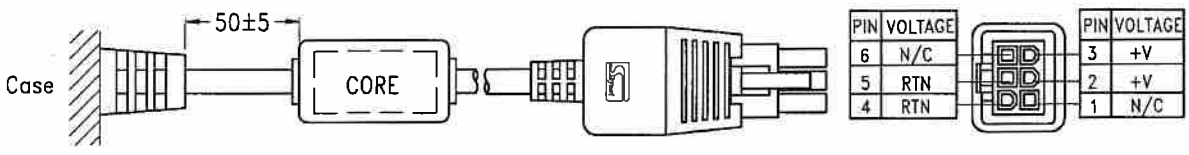
DC output : MOLEX 5557-06 or equivalent , with cable length of approximats 183 cm(6ft).

7.3 Power on indicator: Green light

Green light on the top of box.

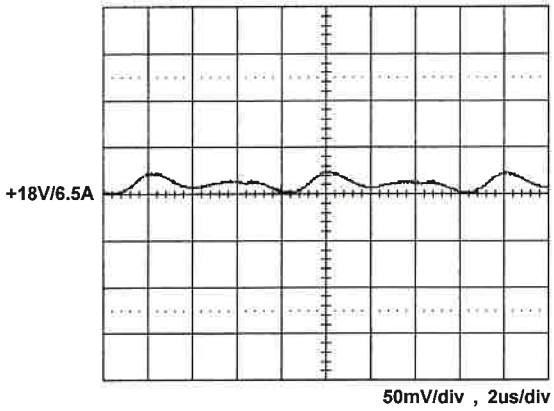
7.4 Case color : Black

7.5 DC output cable and pin assignment

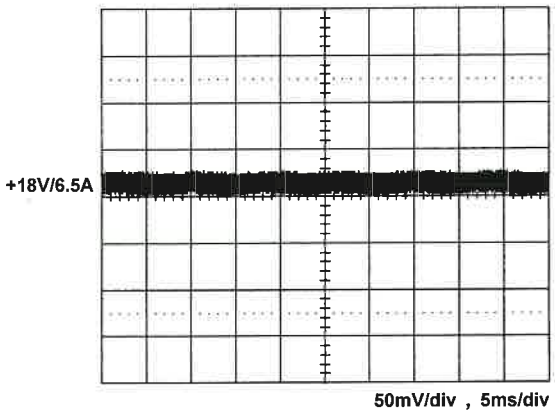


8.0 PERFORMANCE (input voltage is 115VAC, unless others specified)

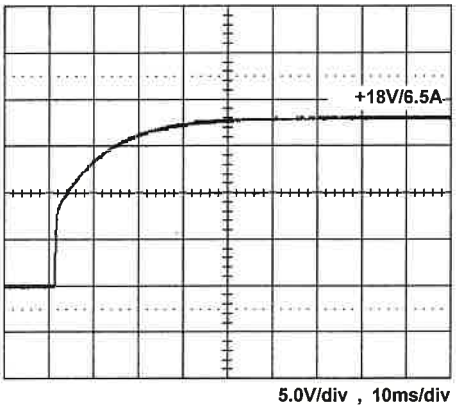
8.1 Switching frequency ripple



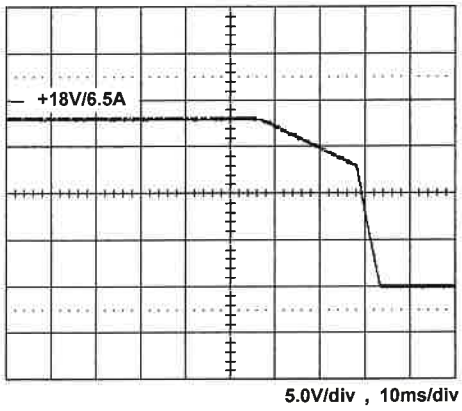
8.2 Line frequency ripple



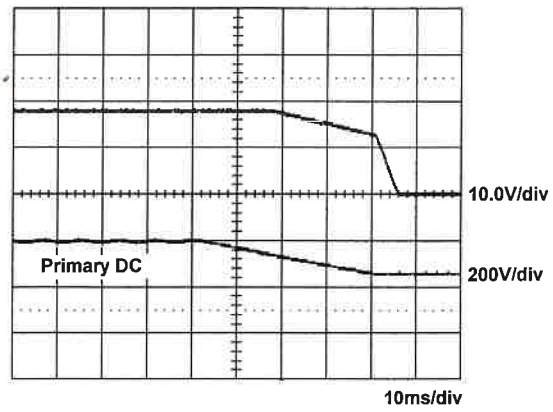
8.3 Output turn on wave form



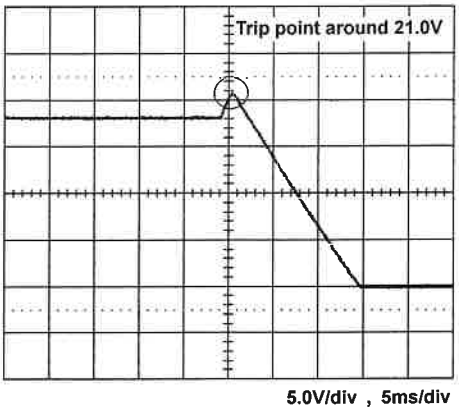
8.4 Output turn off wave form



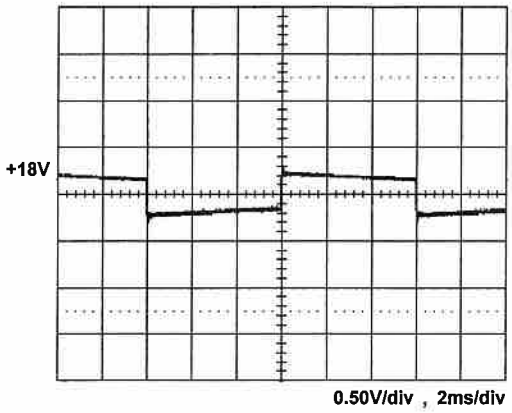
8.5 Hold-up time



8.6 Over voltage protection

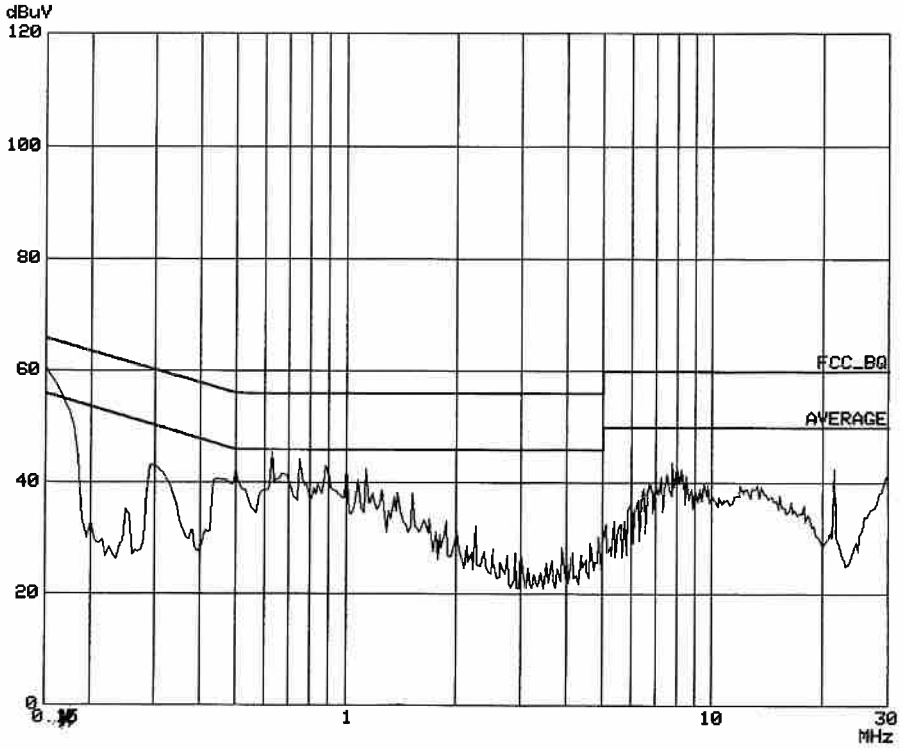


8.7 +18V step response



+18V step from 1.3A to 6.5A

8.8 FCC B performance



8.9 CISPR 22 B