SPECIFICATION

For

SWITCHING POWER SUPPLY

- **SNP-F50H**
- SNP-F50H-F

STANDARD PRODUCT

Reviewed by Product Engineer	Jim 04-5-25					
Typed by Document Assistant	黃秀芳 04.5.25					
SKYNET ELECTRONIC		LAST REV. NO.				

1.0 INTRODUCTIONS

SNP-F50H is an U-shape 500W power supply. By forced air cooling, the max. output can reach to 750W, It can also deliver 1000W for 2sec without shutdown. It is designed for ITE and medical BF application. The 12V output is for forced air cooling. The RS output is for remote sense.

2.0 INPUT SPECIFICATIONS

2.1 Input voltage

The range of input voltage is from 90VAC to 264VAC. Nominal line is 115VAC/230VAC.

2.2 Input frequency

The range of input frequency is from 47Hz to 63Hz.

2.3 Input current

The maximum input current is 6A at 115VAC or 3A at 230VAC.

2.4 Inrush current

The inrush current will not exceed 30A at 115VAC input or 60A at 230VAC input, cold start at 25°C. (EMI capacitors excluded)

3.0 OUTPUT SPECIFICATIONS

3.1 Load range

output	min. load	rated load	max. load	peak load	Surge load
+63V	0A	8A	12A	16 A	24A

3.1.1 Factory adjustment

At factory, the output in 60% rated load and nominal line condition, the +63V output is set to between 62.8V and 63.2V.

3.1.2 Total output power

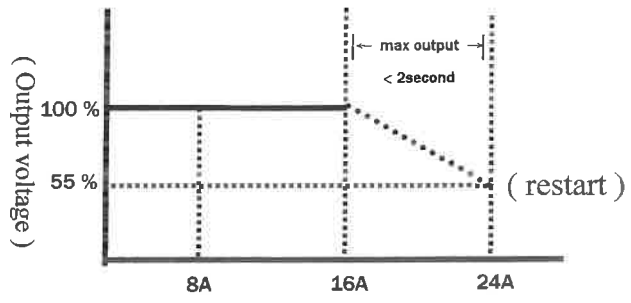
Can run up to rated load with convection cooling ; to max load with 18CFM forced air cooling.

3.1.3 Peak load capability

The output current can provide 2X rated current for at least 2 sec, and without output voltage drop.

3.1.4 Surge Load capability

The output current can provide 3X rated current for at least 2 sec, and the output voltage won't drop down to 55%.



(output current)

3.2 Ripple and noise

The peak to peak ripple and noise for each output is less than 1%Vo at rated load and nominal line. Measuring is done by 15MHz band width limited oscilloscope and terminated output with a 0.47uF capacitor.

3.3 Line regulation

The line regulation for +63V output is less than +/- 0.5% while measuring at rated load and + -10% of nominal line input voltage changing

3.4 Load regulation

The load regulation for +63V output is less than +/- 1% measuring are done by changing the measured output load + -40% from 60% rated load and nominal line

3.5 Capacitive load capability

The output can handle capacitive load at start-up up to 20000uF.

3.6 Remote sense

The +63V output has remote sense input which can compensates for 0.5V line drop min.

3.7 Fan off control

The cooling fan output (TB6) will turn-off to reduce the noise when the output power is lower than 35%±20% of max load.

4.0 GENERAL FEATURES

4.1 Efficiency

The efficiency is typical 91% while measuring at nominal line and rated load.

4.2 Hold up time

The hold up time is 16mS typical 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

4.3.1 Over current protection

Trip point :110% to 130% Maximum load, at nominal line.

Protection mode : Auto recovery

4.3.2 Short protection

Protection mode : Auto recovery

4.3.3 Over voltage protection

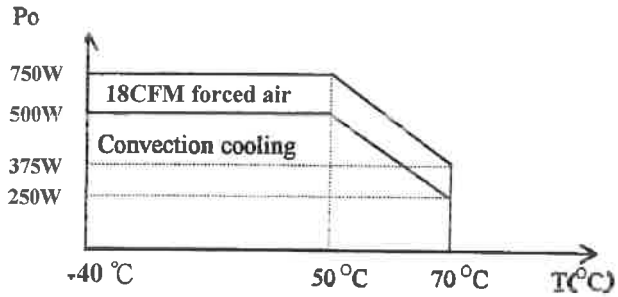
+63V trip point :+69V to 75V.

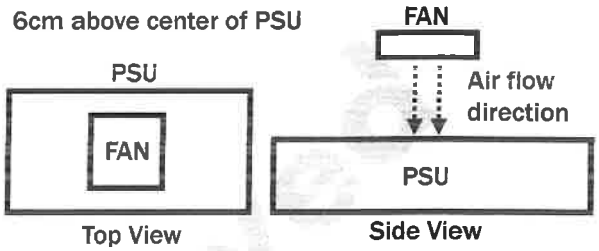
Protection mode : Latch-off.

5.0 ENVIRONMENT SPECIFICATIONS

5.1 Operating temperature

-40°C to 70°C, -40°C to 50°C no derating, above 50°C, derate at 2.5% per degree from 50°C to 70°C.





5.2 Storage temperature

-40°C to 85°C

5.3 Operating humidity

5% to 95% RH, non-condensing

5.4 Altitude

0 to 5000m

5.5 MTBF

>200Khrs(based on SR-332,rated load, 50°C)

6.0 INTERNATIONAL STANDARDS

6.1 Safety standards (Label voltage: 100Vac to 240Vac)

UL/EN/IEC62368-1
ANSI/AMMI/CSA/EN 60601-1

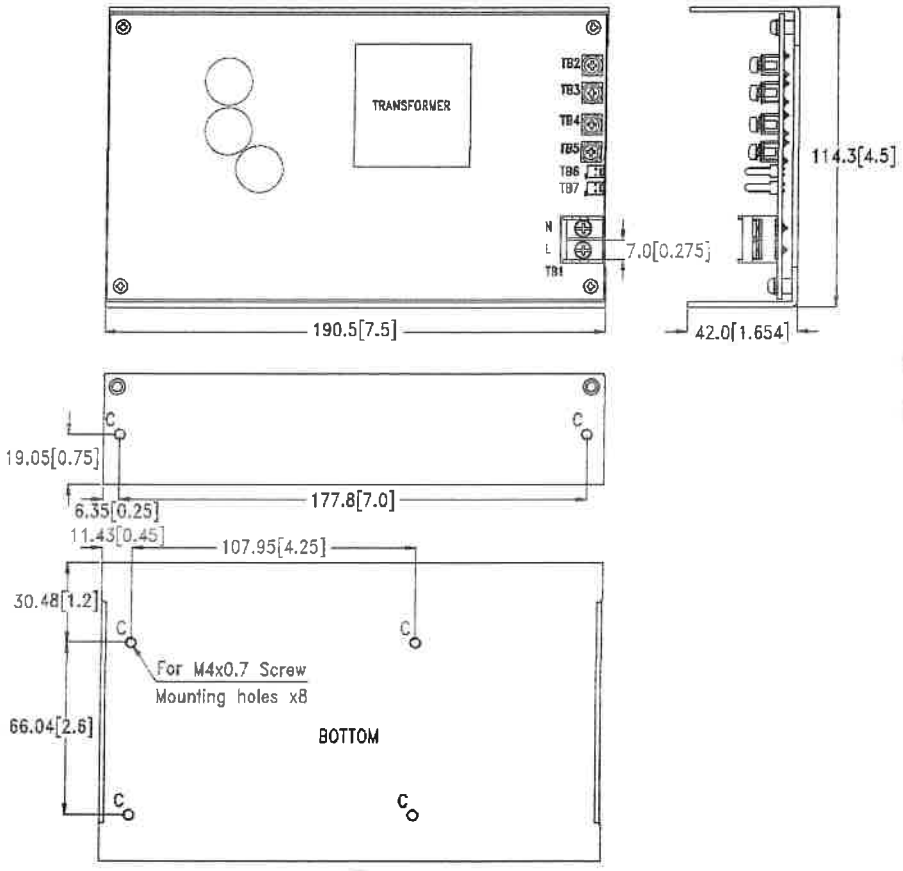
6.2 EMI standards

FCC level "B"
EN55032, level "B"
EN55011, level is "B"
EN 61000-3-2 class "D"
EN 61000-3-3

6.3 EMS standards

EN61000-4-2	8kV/contact discharge, 15kV/air discharge	Criterion A
EN61000-4-4	2kV	Criterion A
EN61000-4-5	1kV/Line-Line, 2kV/Line-Earth	Criterion A
EN61000-4-11	30% dips 500ms,	Criterion A
	60% dips 200ms,	Criterion B
	100% dips 10ms,	Criterion A
	100% dips 20ms,	Criterion B
	100% dips5000ms,	Criterion B

7.0 MECHANICAL SPECIFICATION



7.1 Dimensions

Dimensions below are shown in mm[inch].

Tolerance specified is +-0.4mm[0.016] between mounting holes, +-0.8[0.031]mm other dimensions.

7.2 Connectors

TB1-- AC input	: 2P/ Terminal Block with cover (M3 screw torque:8kg-cm)
TB2~TB5-- DC Output	: Terminal Blocks (#6-32 screw torque:10kg-cm)
TB6-- For+12V fan use only	: Molex 5045-02A or equivalent.
TB7-- Remote Sense	: Molex 5045-02A or equivalent.

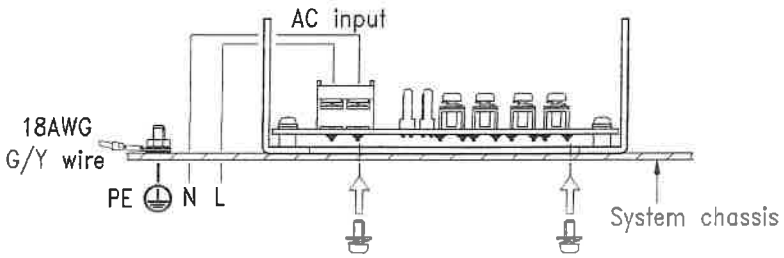
7.3 DC output pin assignment

TB2 & TB3 : GND	TB6 : Pin1	GND	TB7 : Pin1	–RS
TB4 & TB5 : +63V	Pin2	FAN	Pin2	+RS

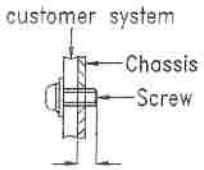
7.4 Packing

Net weight	: 1330g approx. / unit
Carton size(mm)	: 510 (L) x 335 (W) x 215 (H)
Quantity	: 8 units / carton
Gross weight	: 13.3kg apporx. / carton

8.0 INSTALLATION INSTRUCTION



Mounting screw protrusion limitation

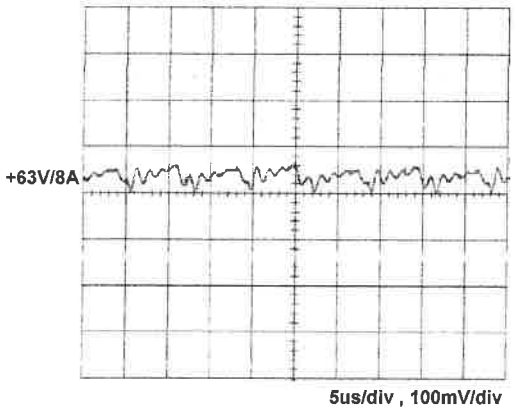


4.0[0.157] max.

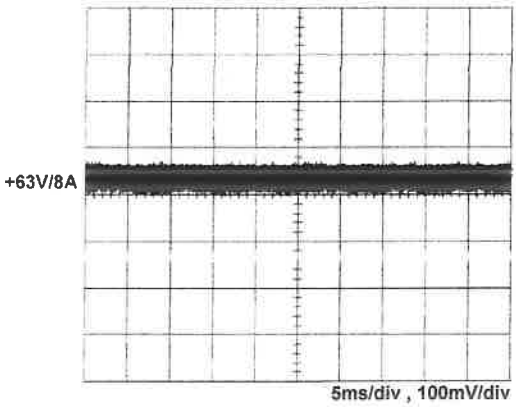
Suggest screw torque: 10kg-cm

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

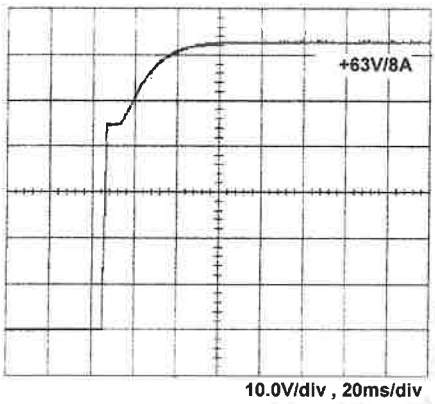
9.1 Switching frequency ripple



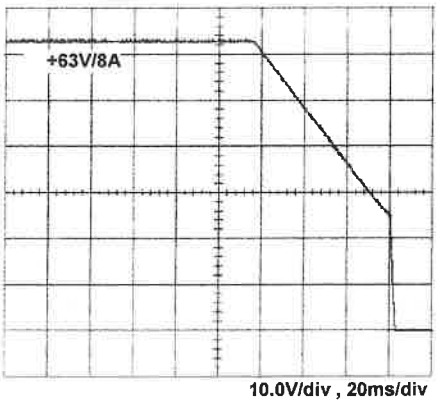
9.2 Line frequency ripple



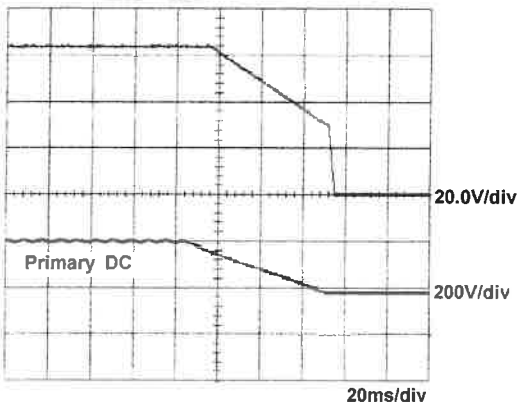
9.3 Output turn on wave form



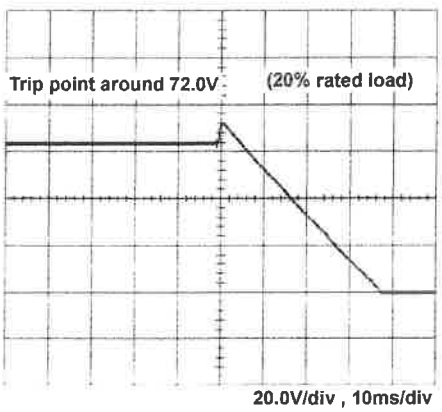
9. 4 Output turn off wave form



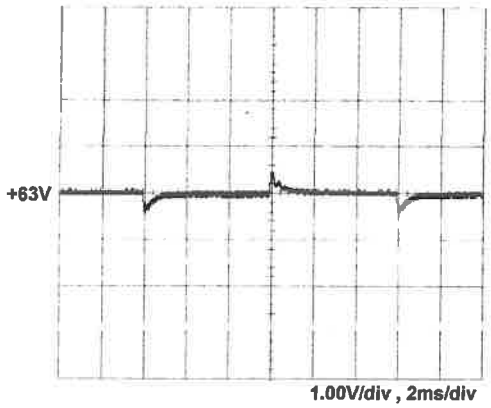
9.5 Hold-up time



9.6 Over voltage protection

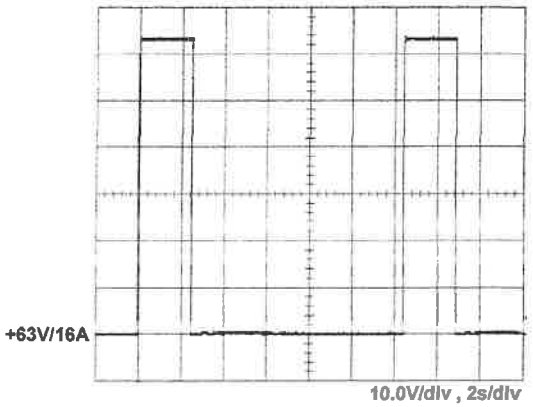


9.7 +63V Step response

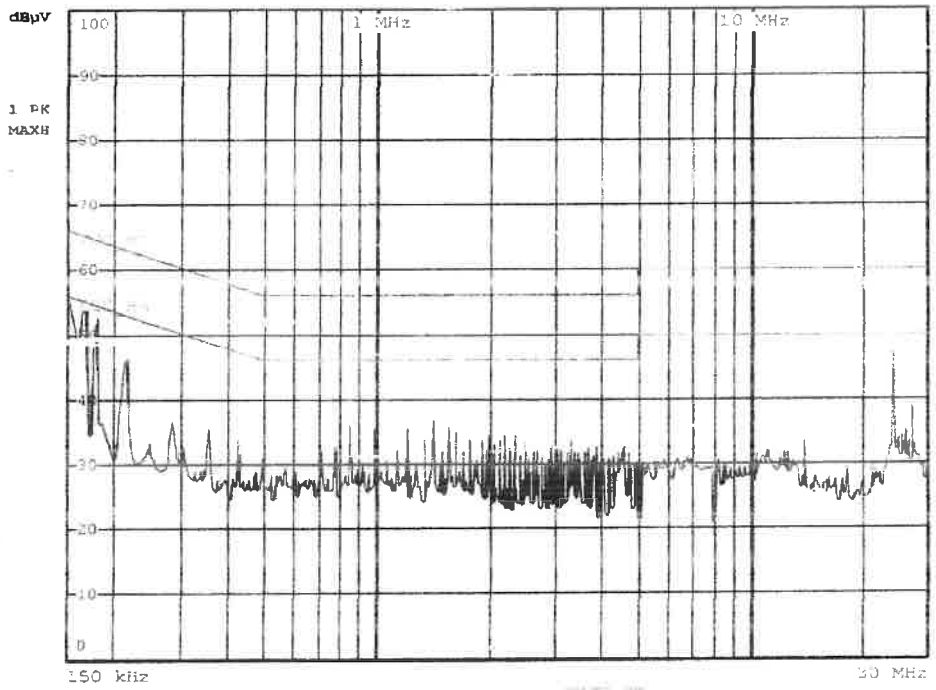


+63V step from 1.6A to 8A

9. 8 Peak load



9.9 FCC B performance



9.10 CISPR "B"