

SPECIFICATION

For

SWITCHING POWER SUPPLY

M/N : SNP-G127-H

STANDARD PRODUCT

Reviewed by Product Engineer	Tom 12-9-88	Tom 7-14-88				
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SKYNET ELECTRONIC			LAST REV. NO.			

1.0 INTRODUCTION

SNP-G127-H is modified from SNP-G127 for use in Home Healthcare Devices. For this application, Class II AC input is necessary. To meet BF requirement, the touch current is trimmed to less than 100uA.

2.0 INPUT SPECIFICATIONS

2.1 Input Voltage

Input voltage range : 90Vac to 264Vac

Nominal line voltage : 115Vac/230Vac

2.2 Input frequency

47Hz to 63Hz

2.3 Input current

$2A_{\text{rms}}$ max/115Vac, $1A_{\text{rms}}$ max/230Vac

2.4 Inrush current

30A max/115Vac, 60A max/230Vac (cold start at 25°C)

3.0 OUTPUT SPECIFICATIONS

3.1 Load range

Vo	min. load	rated load	max. load	peak load
+12V	0A	10A	12.5A	16.7A

3.1.1 Factory adjustment

+11.9V to +12.1V (60% rated load, 115Vac)

3.1.2 Peak load max duration

16.7A can last for 2sec. repeatedly, but average power must be kept within 120W, Nominal line voltage input.

3.2 Ripple and noise

< 1% (20MHz bandwidth limited, 1X probe with 0.47uF parallel capacitor) at rated load, AC 115Vac input.

3.3 Line regulation

< $\pm 0.5\%$ (90Vac to 264Vac, compare with 115Vac)

3.4 Load regulation

< $\pm 1\%$ (20% to 100% rated load, compare with 60% rated load), Nominal line voltage input.

3.5 Capacitive load start-up capability

< 20000uF (90Vac, rated load)

4.0 GENERAL FEATURES

4.1 efficiency

>89 typ. at rated load, AC 115Vac input

4.2 Hold up time

>20ms at 115Vac input and rated load.

4.3 Protection

4.3.1 Over-voltage protection

Trip point : +13.1V to +15.1V tested at 60% rated load and 115Vac input.

Protection mode : Latch-off

4.3.2 Short circuit and over-load protection

Protection mode : Auto-recovery

5.0 ENVIRONMENT SPECIFICATIONS

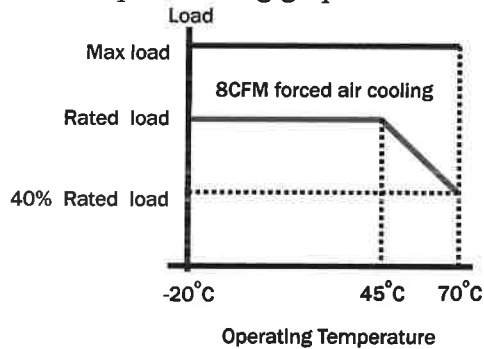
5.1 Operating temperature

-20°C to 70°C

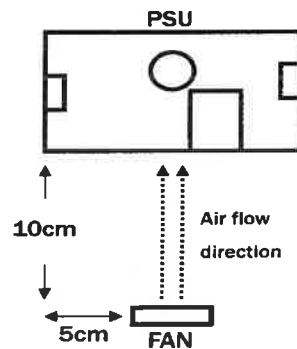
Output reduces linearly to 40% load from 45°C to 70 °C.

Rated load with convection cooling; max load with 8 CFM forced air cooling.

Output derating graph



Max Load Fan location



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

6.0 INTERNATIONAL STANDARDS

6.1 Safety standards

Label voltage : 100Vac to 240Vac

ANSI/AAMI/CSA/EN 60601-1, 3.1rd edition +A11+A12

6.2 EMI standards

FCC docket 20780 curve "B"

EN55022, level "B"

EN55011, level "B"

EN 61000-3-2 class "D"

EN 61000-3-3

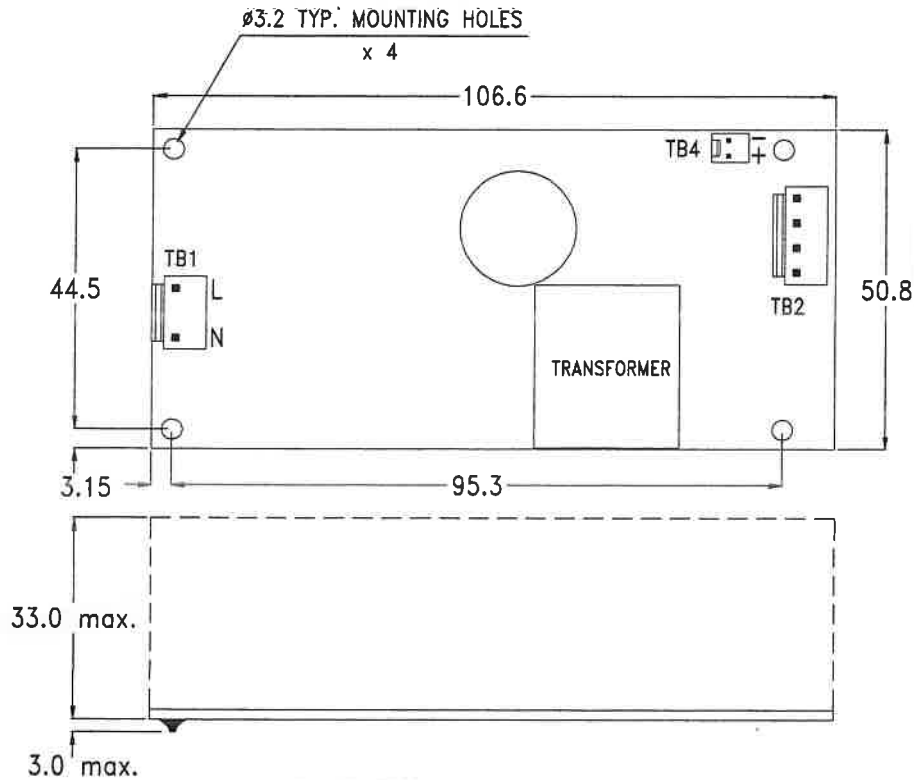
6.3 EMS standards

EN61000-4-2	8kV/contact discharge, 15kV/air discharge	Criterion A
EN61000-4-3	10V/M with 80% AM	Criterion A
EN61000-4-4	2kV	Criterion A
EN61000-4-5	2kV/Line-Line	Criterion A
EN61000-4-6	10V with 80% AM	Criterion A
EN61000-4-8	10A/m	Criterion A
EN61000-4-11	100% dips 10ms,	Criterion A
	100% dips 20ms,	Criterion B
	30% dips 500ms,	Criterion B
	60% dips 200ms,	Criterion B
	95% dips 5000ms,	Criterion B

7.0 MECHANICAL SPECIFICATION

7.1 Dimensions

Dimensions shown in mm as below. Tolerance specified is +/-0.4mm.

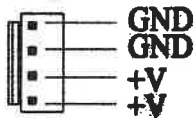


Note : To meet class II system safety, mounting holes must be mounted by plastic stand.

7.2 Connectors

- TB1--AC Input : JST B2P3-VH or equivalent
(Mates with : JST VHR-3N or equivalent)
- TB2--DC Output : JST B4P-VH or equivalent
(Mates with : JST VHR-4N or equivalent)
- TB4--For +12V fan use only : Molex 5045-02A or equivalent
(Mates with : Molex 5051-02 or equivalent)

7.3 DC Output pin assignment

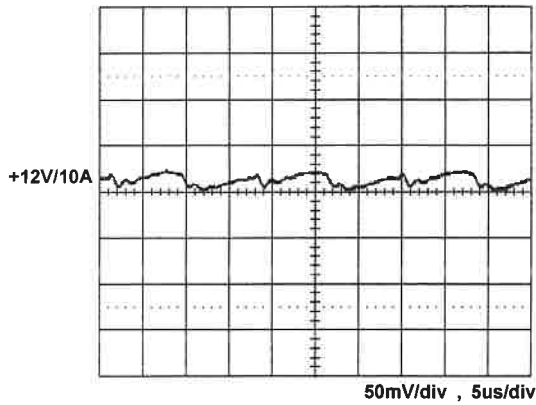


7.4 Packing

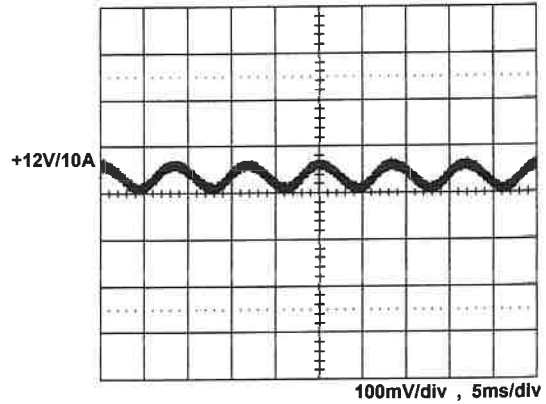
- Net weight : 160g approx. / unit
- Carton size(mm) : 446 (L) x 412 (W) x 287(H)
- Quantity : 80 units / carton
- Gross weight : 16.0 kg approx. / carton

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

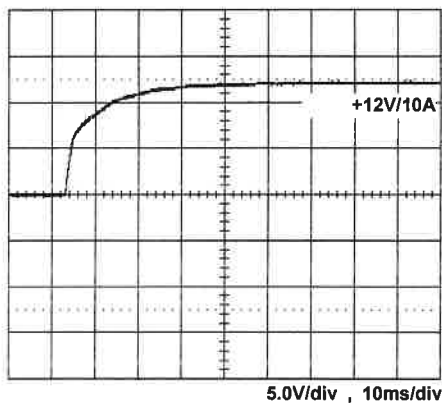
8.1 Switching frequency ripple



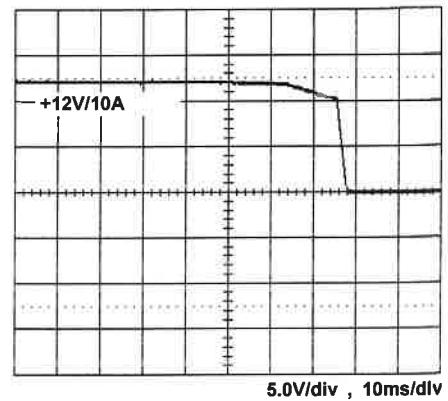
8.2 Line frequency ripple



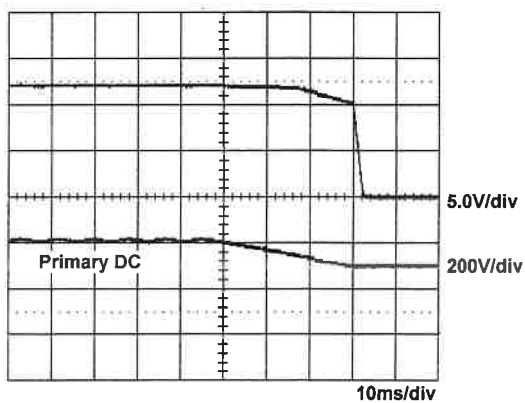
8.3 Output turn on wave form



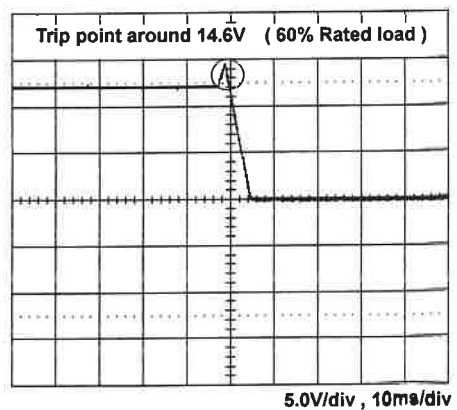
8.4 Output turn off wave form



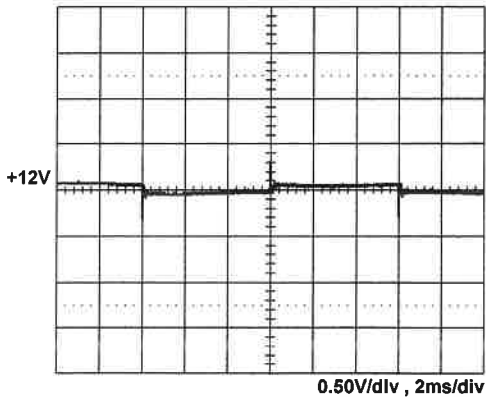
8.5 Hold-up time



8.6 Over voltage protection

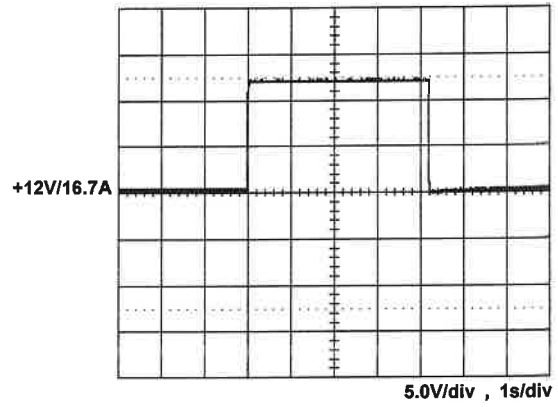


8.7 +12V step response

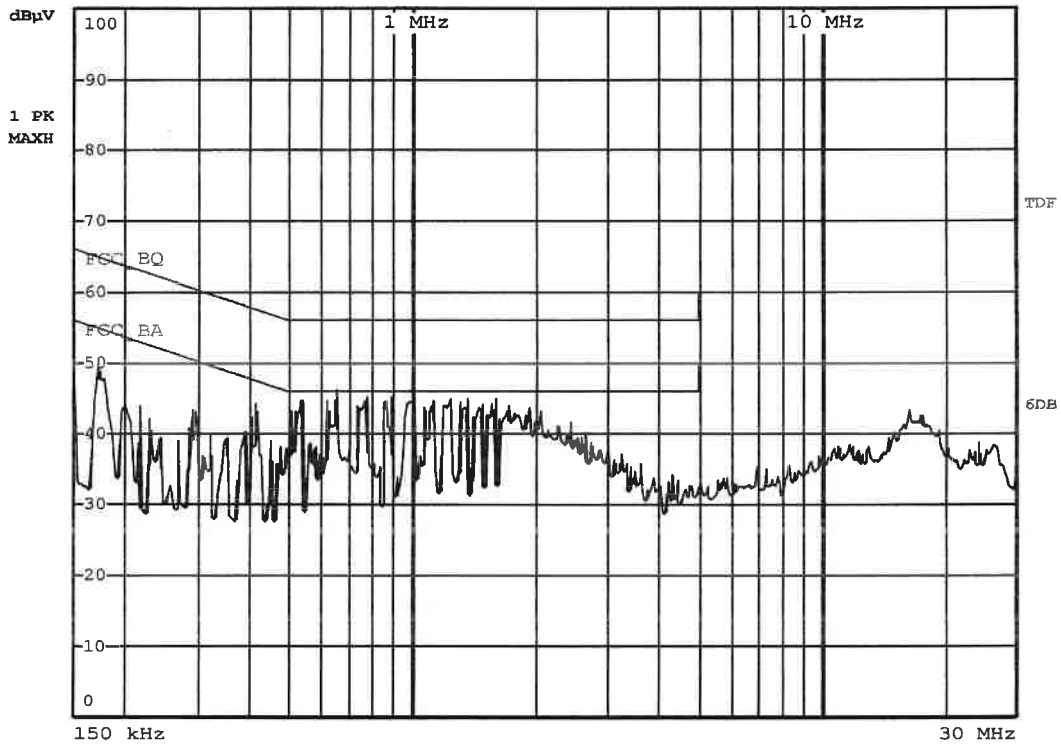


+12V step from 2A to 10A

8.8 +12V peak load



8.9 FCC "B" QP performance



8.10 CISPR "B" QP performance

