

SNP-G12T-H SPECIFICATION

SPECIFICATION


For

SWITCHING POWER SUPPLY

M/N : SNP-G12T-H

STANDARD PRODUCT

All Rights Reserved

Reviewed by Product Engineer	Jim 2-22-19					
Typed by Document Assistant						
SKYNET ELECTRONIC			LAST REV. NO.			

1.0 INTRODUCTIONS

SNP-G12T-H is modified from SNP-G12T for use in Home Healthcare Devices. For this application, Class II AC input and Class B EMI 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

$2A_{rms}$ max/115Vac, $1A_{rms}$ 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
+48V	0A	2.5A	3.1A	4.2 A

3.1.1 Factory adjustment

+47.8V to +48.2V (60% rated load, 115Vac)

3.1.2 Peak load max duration

4.2A can last for 2sec. repeatedly, but average power must be kept within 120W,
Nominal line voltage input.

3.2 Ripple and noise

< 480mV (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, comparing with 115Vac)

3.4 Load regulation

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

3.5 Capacitive load start-up capability

< 1000uF (90Vac rated load)

4.0 GENERAL FEATURES

4.1 efficiency

>90% 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 : +55V to +59V tested at 60% rated load and 115Vac input.

Protection mode : Latch-off

4.3.2 Output short or overload protection

Protection mode : Auto-recovery

5.0 ENVIRONMENT SPECIFICATIONS

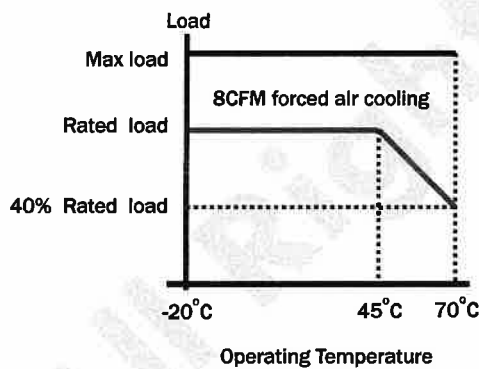
5.1 Operating temperature

-20°C to 70°C

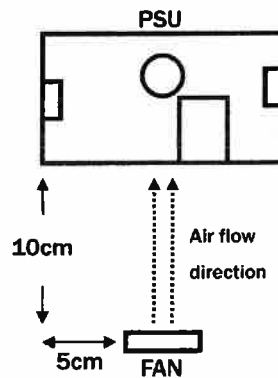
Output load derates linearly to 40% from 45°C to 70°C)

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

Output derating curve



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

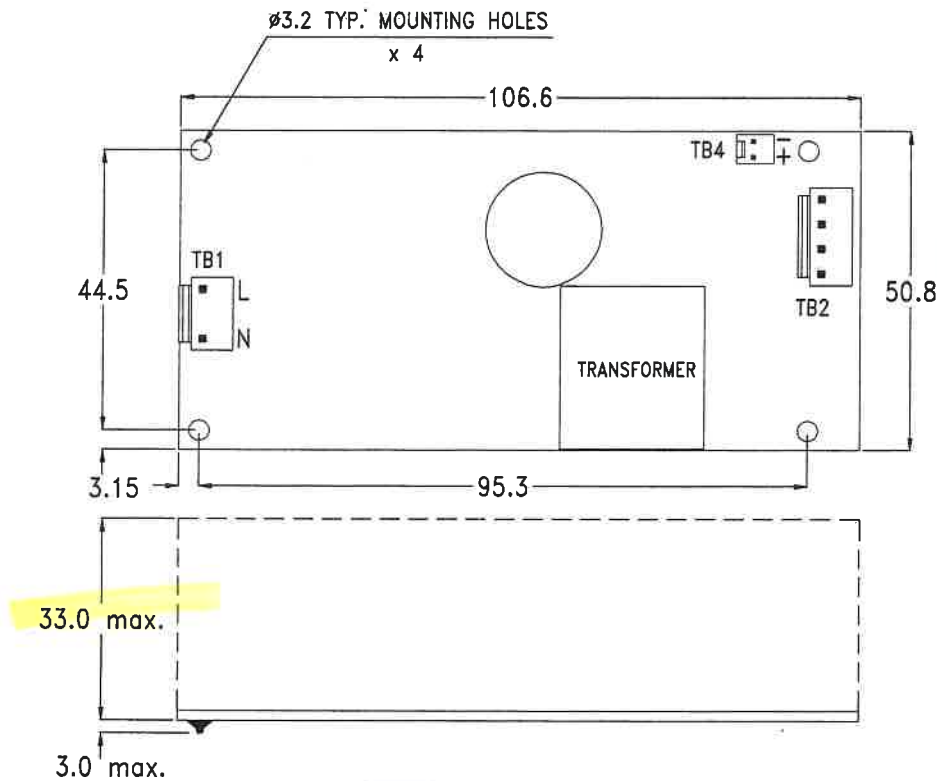
6.3 EMS standards

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 (100KHz)	Criterion A
EN61000-4-5	1kV/Line-Line, 2kV/Line-Earth	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 as below. Tolerance specified is +/-0.4mm.

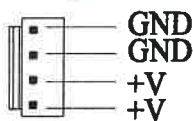


Note : To meet class II system safety, mounting holes must be mounted by plastic stand.

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

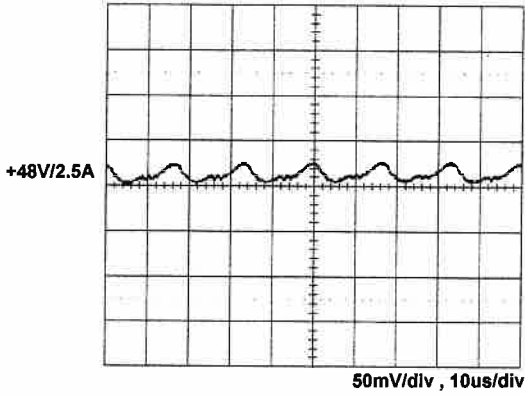


7.4 Packing

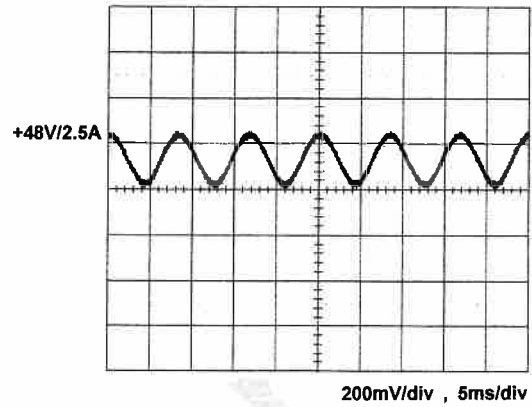
- Net weight : 160g approx. / unit
- Carton size(mm) : 446 (L) x 412 (W) x 287(H)
- Quantity : 80 units / carton
- Gross weight : 16.0 kg approx. / carton

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

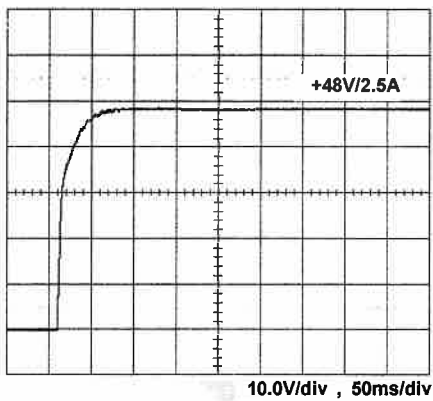
8.1 Switching frequency ripple



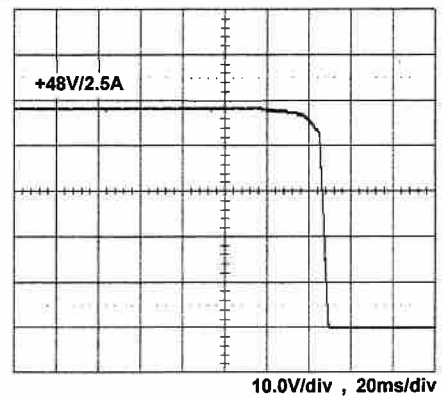
8.2 Line frequency ripple



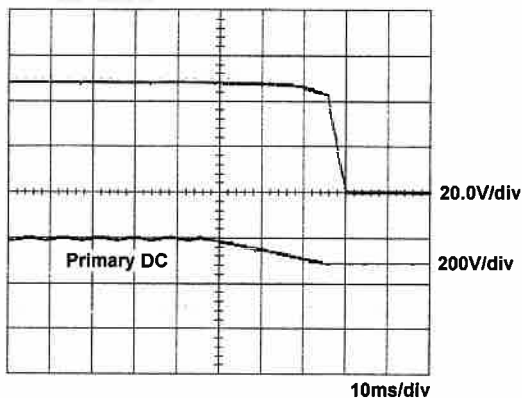
8.3 Output turn on wave form



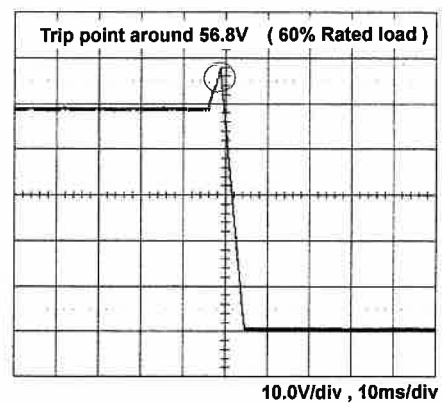
8.4 Output turn off wave form



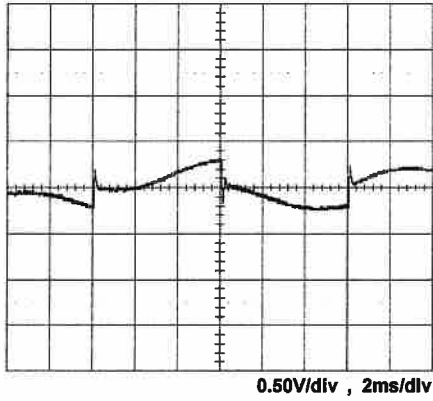
8.5 Hold-up time



8.6 Over voltage protection

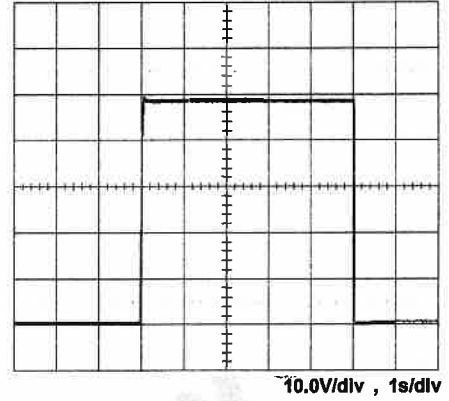


8.7 +48V Step response



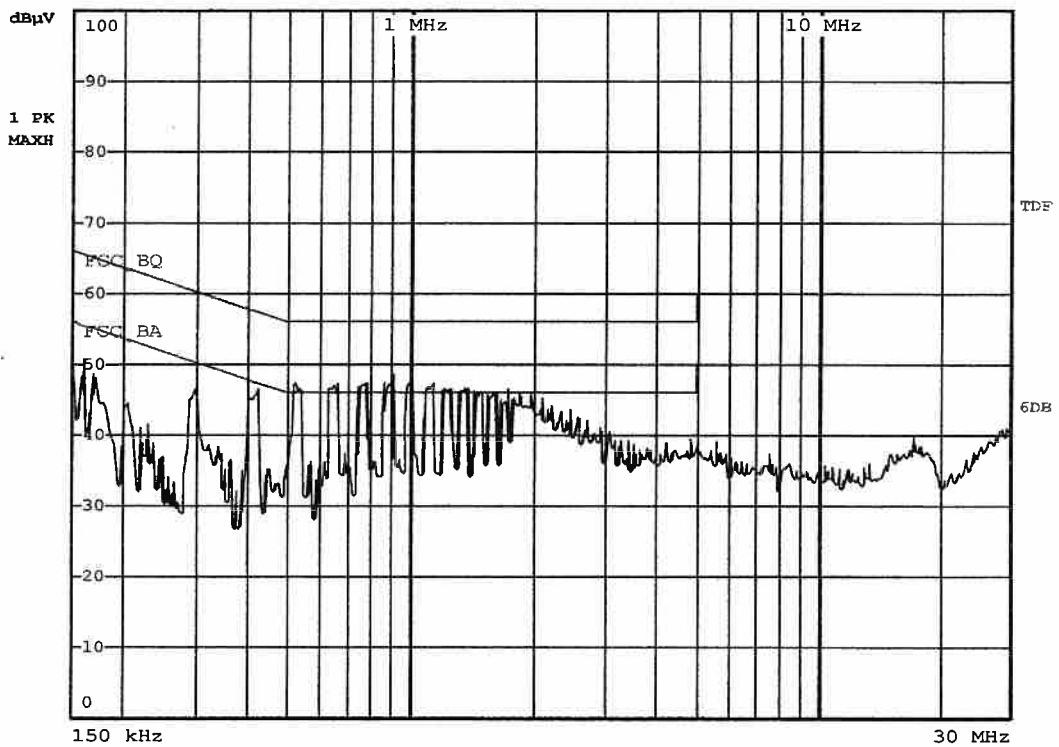
+48V step from 0.5A to 2.5A

8.8 Peak Load



All Rights Reserved

8.9 FCC "B" QP performance



8.10 CISPR "B" QP performance

