SPECIFICATION

For

SWITCHING POWER SUPPLY

M/N : SNP-V16T

STANDARD PRODUCT

Reviewed by Product Engineer						
Typed by Document Assistant						
SKYNET ELECTRONIC			**LAST REV. NO.**			

1.0 INTRODUCTIONS

The SNP-V16T is a 2" × 4" open-frame power supply that delivers a 48V output with up to 160W under convection cooling. It can also provide 250W with forced-air cooling and supports a 300W peak for up to 2 seconds. All output power ratings are achieved without line input derating. It's a member of SNP-V16 series.

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

$3A_{rms}$ max/115Vac, $1.5A_{rms}$ max/230Vac

2.4 Inrush current

50A max/115Vac, 100A max/230Vac (EMI capacitors excluded, cold start at 25°C)

2.5 Test Condition

All specs except international standards or specs with special notes are defined and tested at nominal line input, rated load and 25°C.

3.0 OUTPUT SPECIFICATIONS

3.1 Load range

Vo	min. load	rated load	max. load	Peak load
48V	0A	3.33A	5.2A	6.25A

3.1.1 Factory adjustment

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

3.1.2 Total output Power

160W with convection cooling. 250W with FAN Cooling.

3.1.3 Peak output Power

At peak Load 300W and nomad line, the output can last for 2 sec without shutdown.

3.2 Ripple and noise

< 1% (20MHz bandwidth limited, 1X probe with 4.7uF parallel capacitor)

3.3 Line regulation

< ±0.5% (90Vac to 264Vac, compare with 115Vac)

3.4 Load regulation

< ±1% (20% to 100% rated load, compare with 60% rated load)

3.5 Capacitive load start-up capability

< 5000uF

4.0 GENERAL FEATURES

4.1 Efficiency

Rated load efficiency : 92% typical/115Vac, 93% typical/230Vac

4.2 Hold up time

16 ms typical.

4.3 Protection

4.3.1 Over-voltage protection

Trip point : +53V to +65V (60% rated load)

Protection mode : Latch-off

4.3.2 Short circuit and over-load protection

Protection mode : Auto-recovery

5.0 ENVIRONMENT SPECIFICATIONS

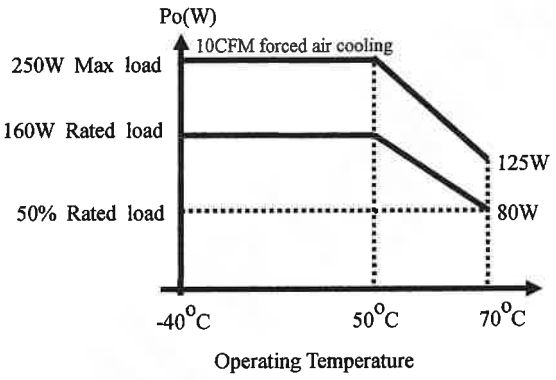
5.1 Operating De-rating Curve

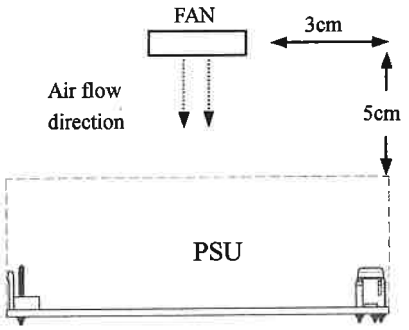
(A) Output power v.s. Temperature

(1) -40 °C ~ 50 °C , no derating.

(2) +50 °C ~ 70 °C , derate 2.5% per °C.

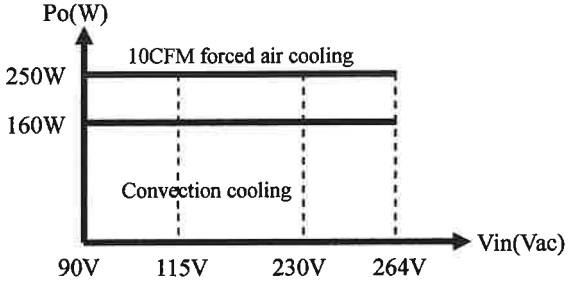
(3) Rated load with convection cooling; max load with 10CFM forced air cooling





(B) Output power v.s. Input Voltage

(1) 90Vac ~ 264Vac , no derating.



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

> 160Khrs (based on SR-332, rated load, 50 °C)

6.0 INTERNATIONAL STANDARDS

6.1 Safety standards

Designed to meet the following regulations :

Label voltage : 100Vac to 240Vac

UL/EN/IEC 62368-1

ANSI/AMMI/CSA/EN 60601-1

6.2 EMI standards

FCC docket 20780 curve "B"

CISPR 22 "B"

EN 61000-3-2 class "D"

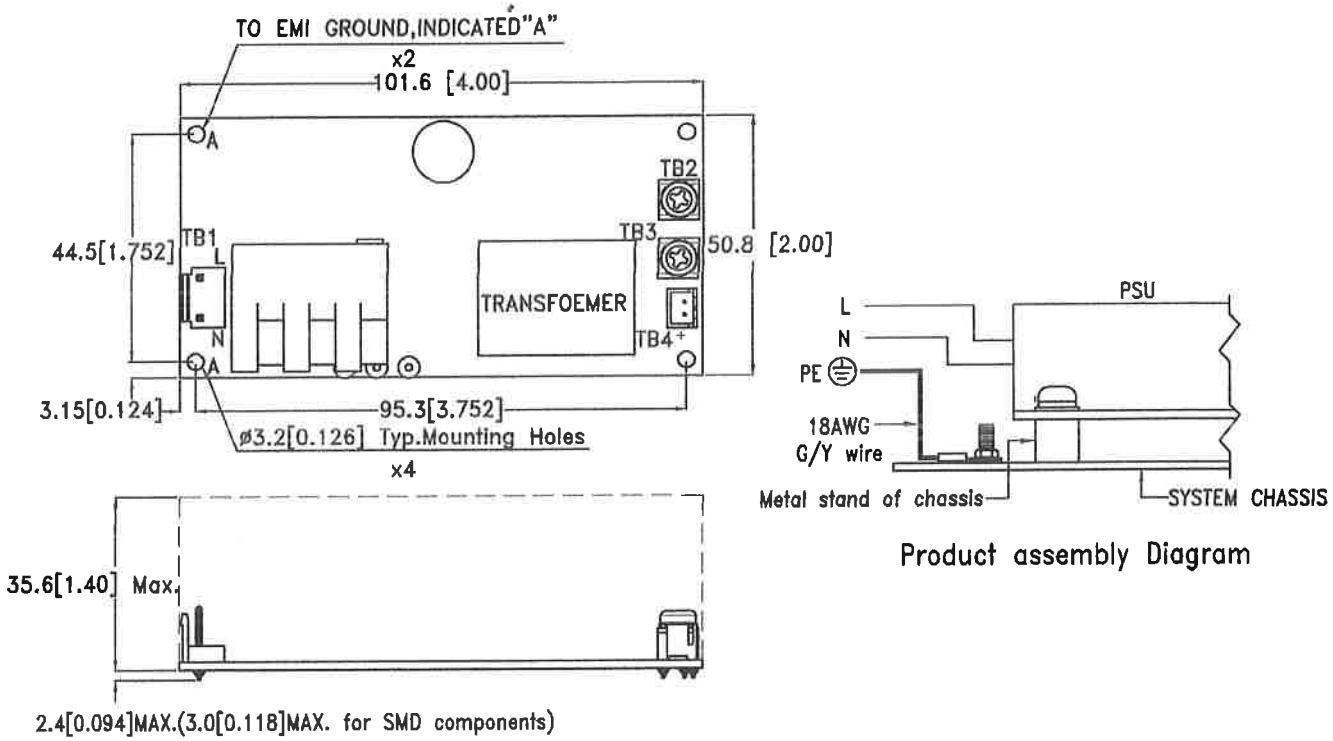
6.3 EMS standards

EN61000-4-2	8kV/contact discharge, 15kV/air discharge	Criterion A
EN61000-4-4	2kV (100KHz)	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 5000ms,	Criterion B
	100% dips 20ms,	Criterion B

7.0 MECHANICAL SPECIFICATION

7.1 Dimensions

Dimensions shown in mm[inch] as above. Tolerance specified is ±0.4mm[0.016inch].



Product assembly Diagram

7.2 Connectors

TB1--AC input	: JST B2P3-VH or equivalent
TB2 & TB3--DC output	: Terminal (# 6-32 screw)(screw torque : 10kg-cm)
TB4--For FAN use only	: JST B2B-XH-A or equivalent.

7.3 DC Output pin assignment

TB2 > +V

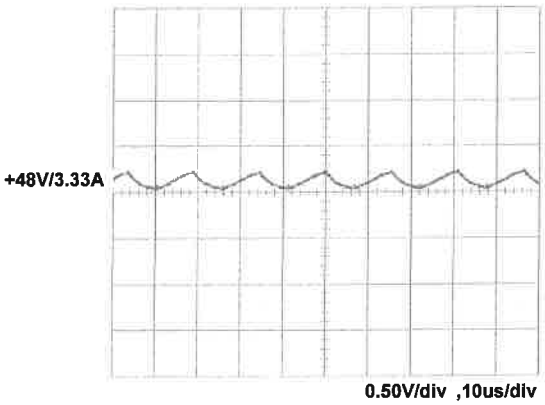
TB3 > GND

7.4 Packing

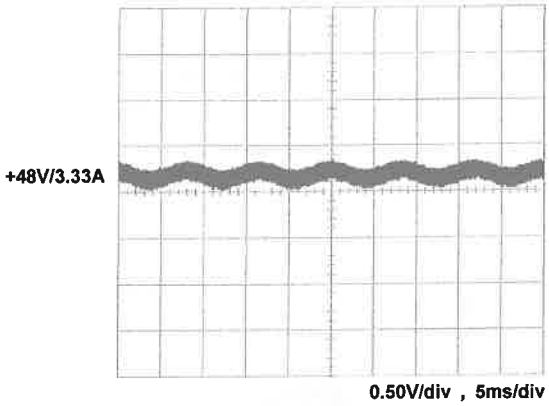
Net weight	: 225g approx. / unit
Carton size (mm)	: 369 (L) × 346 (W) × 277 (H)
Quantity	: 48 units / carton
Gross weight	: 13.3kg approx. / carton

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

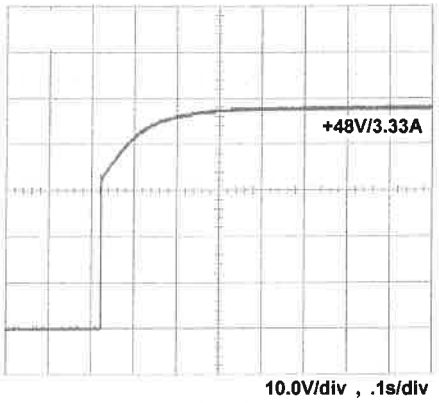
8.1 Switching frequency ripple



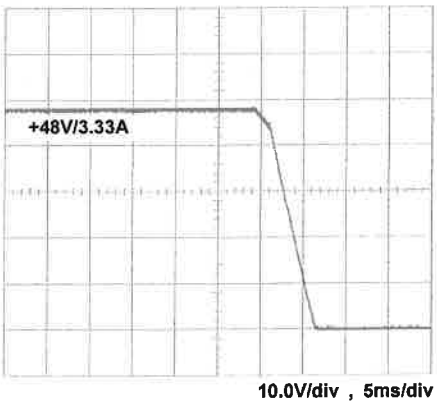
8.2 Line frequency ripple



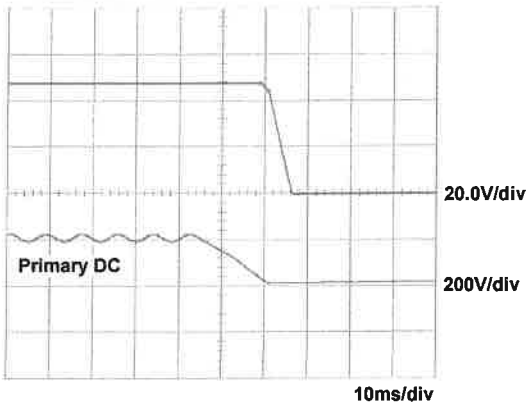
8.3 Output turn on wave form



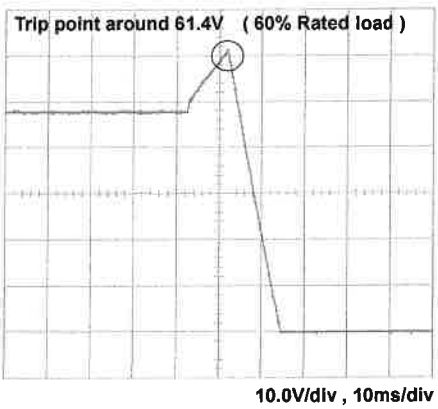
8.4 Output turn off wave form



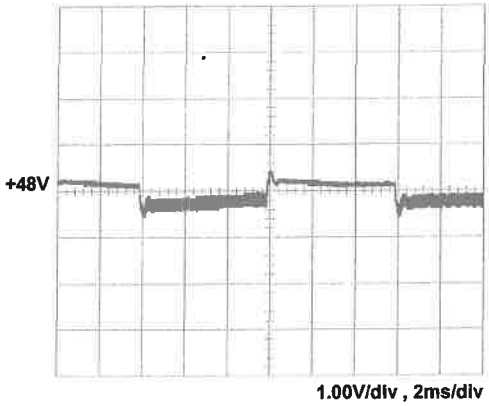
8.5 Hold-up time



8.6 Over voltage protection

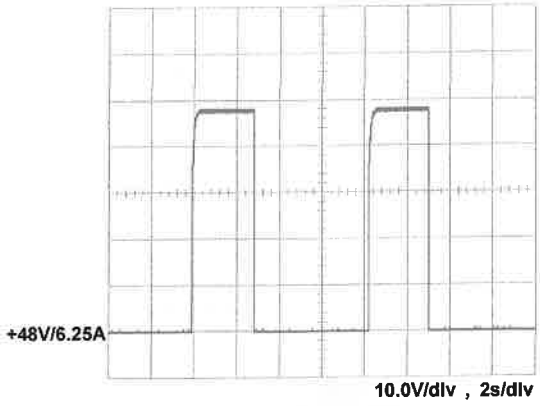


8.7 +48V step response

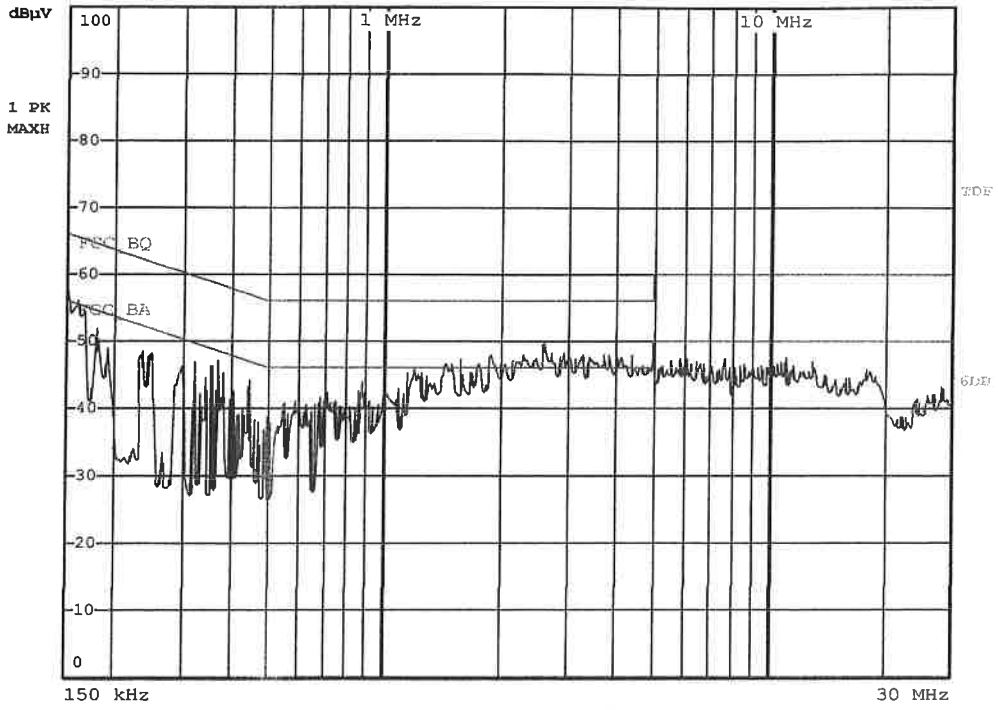


+48V step from 0.666A to 3.33A

8.8 +48V peak load



8.9 FCC B performance



8.10 CISPR 22 B