

SPECIFICATION

For

SWITCHING POWER SUPPLY

M/N : SNP-E308-M

STANDARD PRODUCT

Reviewed by	Clara 9/28/11	Clara 12/14/11	Hw 072415	Jim 04-14-23	Jim 1-23-24	
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SKYNET ELECTRONIC			LAST REV. NO.			

1.0 INTRODUCTIONS

SNP-E308-M is a 300W SMPS with metal enclosure and built-in forced air cooling.

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

$4A_{\text{rms}}$ max/115Vac, $2A_{\text{rms}}$ max/230Vac

2.4 Inrush current

30A max/115Vac, 60A 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
+15V	0A	20.0A

3.1.1 Factory adjustment

+14.9V to +15.1V (60% rated load, 115Vac)

3.1.2 Min load for FAN

20W min load for main output is required for FAN to start working.

3.2 Ripple and noise

< 150mV (20MHz bandwidth limited, 1X probe with 0.47uF parallel capacitor)

3.3 Line regulation

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

3.4 Load regulation

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

4.0 GENERAL FEATURES

4.1 Efficiency

Rated load efficiency : 87% typical

Average efficiency of 25%, 50%, 75% and 100% rated load : >87%

4.2 Hold up time

14ms typical

4.3 Protection

4.3.1 Over-voltage protection

Trip point : +17V to +22V (60% rated load)

Protection mode : Latch-off

4.3.2 Short circuit and over-load protection

Protection mode : Auto-recovery

4.4 Remote sense

Compensates 0.5V lead drop max.

5.0 ENVIRONMENT SPECIFICATIONS

5.1 Operating temperature

-20°C to 65°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

> 120Khrs (based on MIL-HDBK-217F, rated load, 65 °C)

6.0 INTERNATIONAL STANDARDS

6.1 Safety Approvals

Label Voltage : 100Vac to 240Vac

UL 60601-1

CSA 22.2 NO.60601-1

EN 60601-1

6.2 Emissions and Harmonic currents

FCC docket 20780 level B

CISPR 22 level B

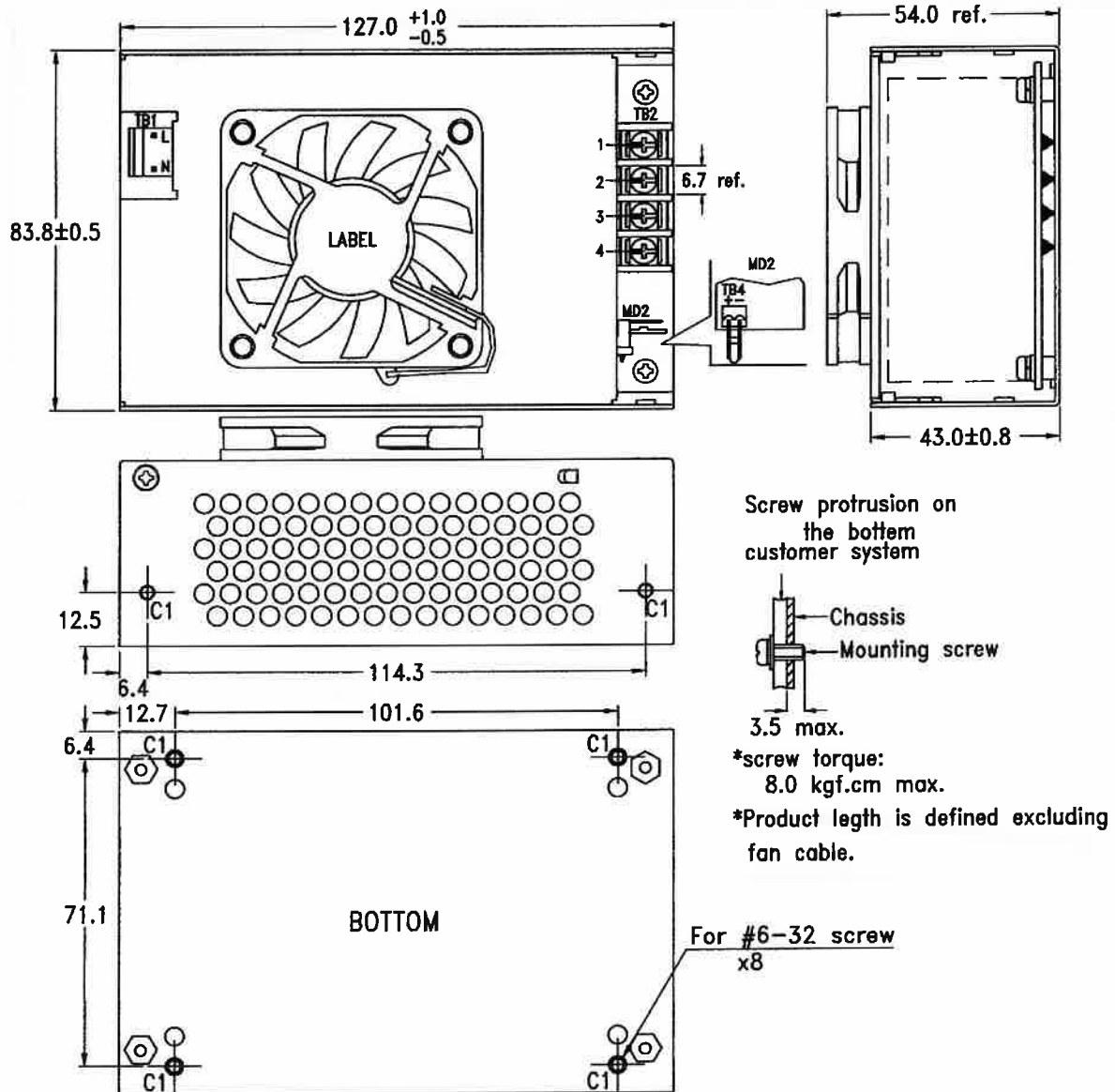
EN 61000-3-2 Class D

EN 61000-3-3

6.3 Immunity

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 above. Tolerance is specified+/-0.4mm.

7.2 Connectors

- TB1- - AC Input : Molex 5277-02A or equivalent , mating with Molex 5239-03 or equivalent
- TB2- - DC Output : Terminal blocks, pitch - 8.25mm
- TB4- - For Remote Sense : Molex 5046-02A or equivalent , mating with Molex 5051-02 or equivalent

7.3 DC pin assignment

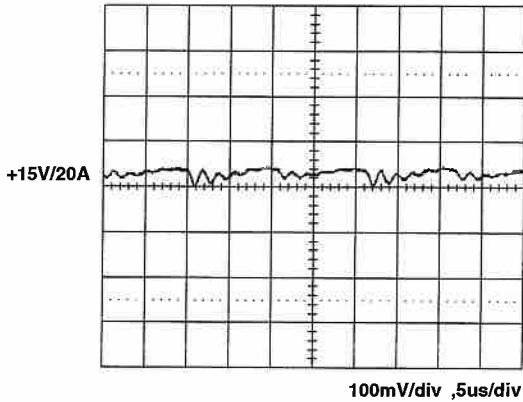
Position 1 +V 2 +V 3 GND 4 GND

7.4 Packing

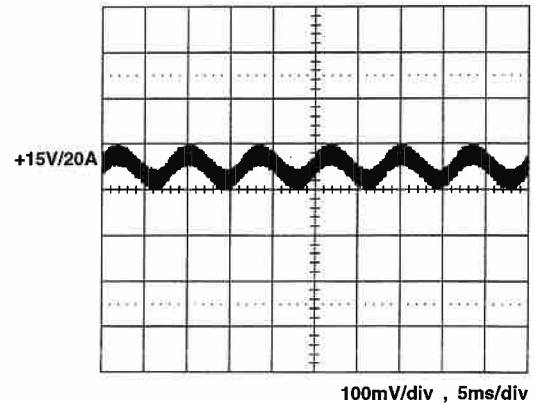
- Net weight : 593 g approx. /unit
- Carton size(mm) : 384 (L) x 339 (W) x 327 (H)
- Quantity : 24 units / carton
- Gross weight : 16.3kg approx. / carton

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

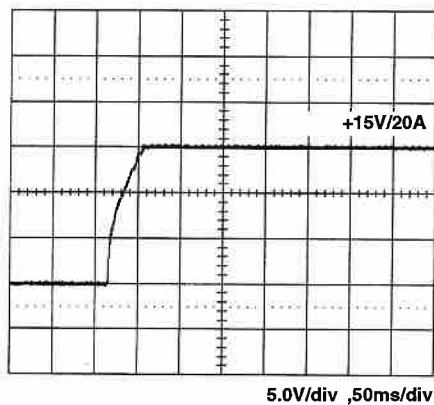
8.1 Switching frequency ripple



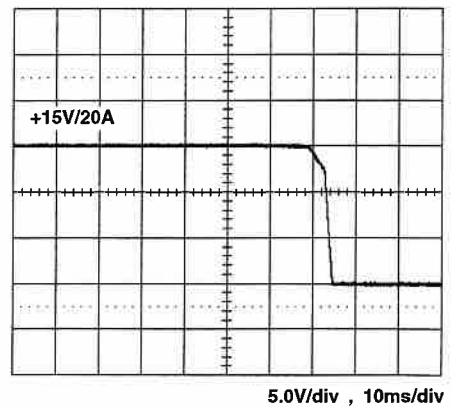
8.2 Line frequency ripple



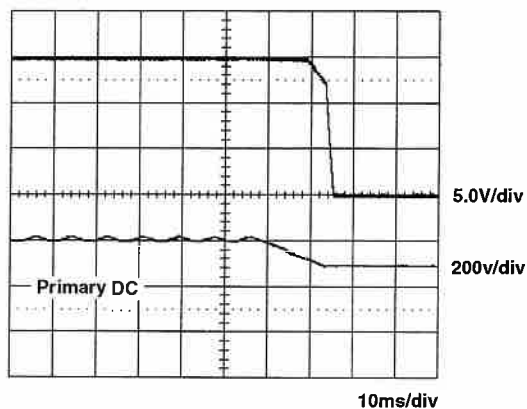
8.3 Output turn on wave form



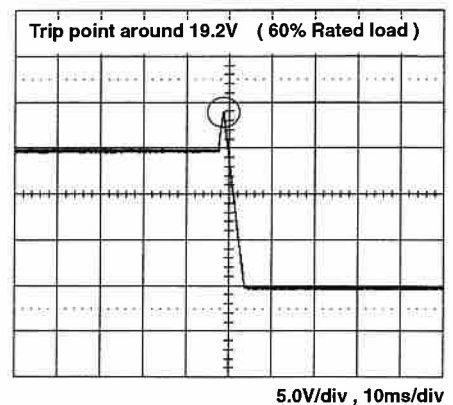
8.4 Output turn off wave form



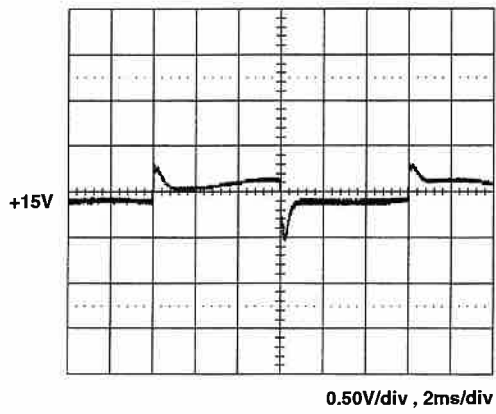
8.5 Hold-up time



8.6 Over voltage protection

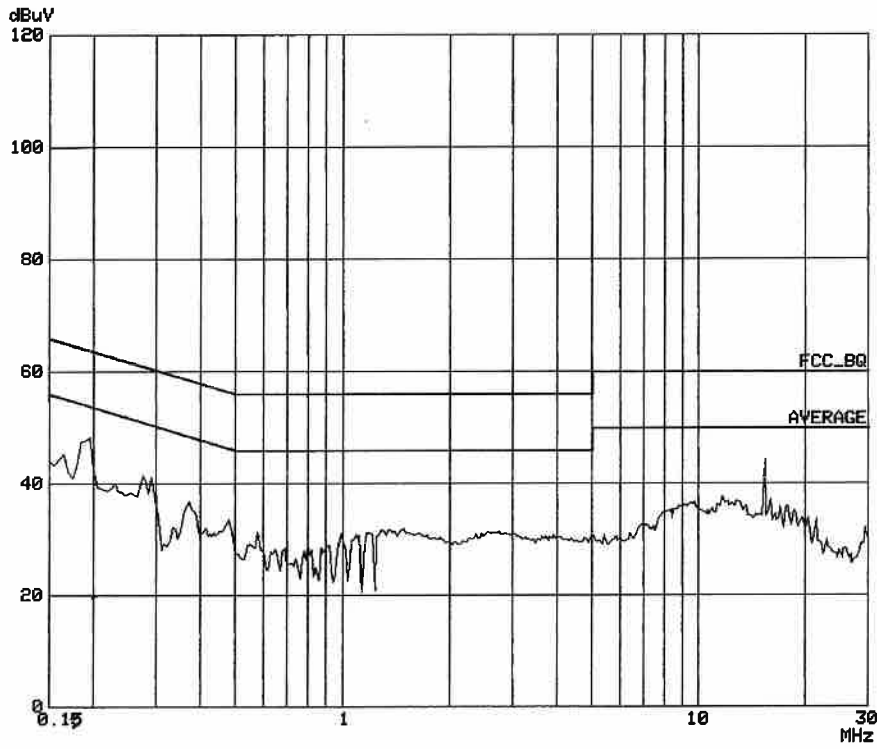


8.7 +15V step response



+15V step from 4A to 20A

8.8 FCC B performance



8.9 CISPR 22 B

