

SPECIFICATION

For

SWITCHING POWER SUPPLY

M/N : SNP-G049-M

STANDARD PRODUCT

Reviewed by Product Manager	<i>Clara</i> 05/11	<i>Jim</i> 8-9-18	<i>Tom</i> 12-25-18			
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SKYNET ELECTRONIC			LAST REV. NO.			

1.0 INTRODUCTIONS

SNP-G049-M is an open frame, general purpose and rated 40W SMPS. It also features in Class I/II installation, Medica safety and green power.

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 (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	peak load
+24V	0A	1.66A	2.4A

3.1.1 Factory adjustment

+23.7V to +24.3V (60% rated load, 115Vac)

3.1.2 Peak load max duration

3sec. (duty cycle < 10%, average power < 40W)

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)

3.5 Capacitive load start-up capability

< 10000uF

4.0 GENERAL FEATURES

4.1 Efficiency

Rated load efficiency : 85% typical

4.2 Hold up time

18ms typical

4.3 No load input power

<0.3W

4.4 Protection

4.4.1 Over-voltage protection

Trip point : +25V to +32V (60% rated load)

Protection mode : Latch-off

4.4.2 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 50% 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 3000m

5.5 MTBF

> 0.47Mhrs (based on MIL-HDBK-217F, rated load, 50 °C)

6.0 INTERNATIONAL STANDARDS

6.1 Safety standards

Label voltage : 100Vac to 240Vac

UL /CUL :

ANSI/AAMI ES60601-1(2005/(R)2012+A1:2012, C1:2009/(R)2012+A2:2010/(R)2012)
- Amendment 1

CAN/CSA-C22.2 No. 60601-1:14

TUV : EN 60601-1:2006+A11+A1+A12

CB : IEC60601-1:2005+A1

6.2 EMI standards

FCC docket 20780 curve "B"

CISPR 22 "B"

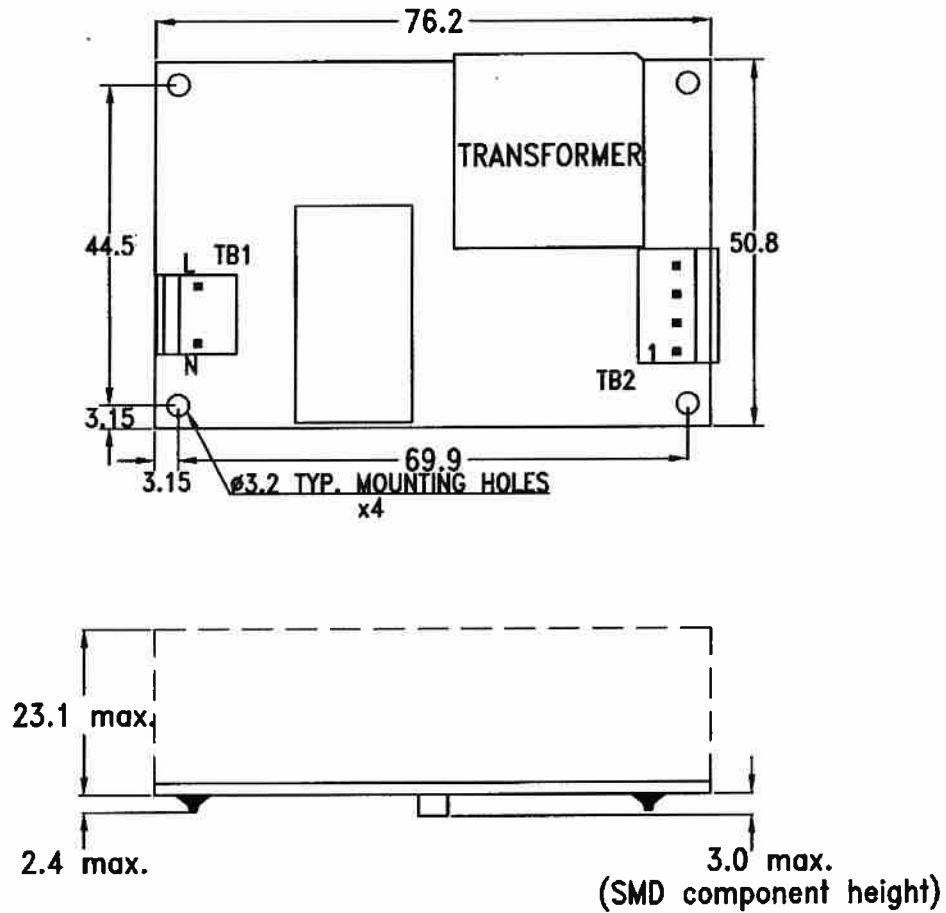
EN 61000-3-2 class "A"

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 above are shown in mm. Tolerance specified is +/-0.4mm.

7.2 Connectors

TB1--AC Input : Molex 5277-02A or equivalent.

TB2--DC Output : Molex 5273-04A or equivalent.

7.3 DC Output pin assignment

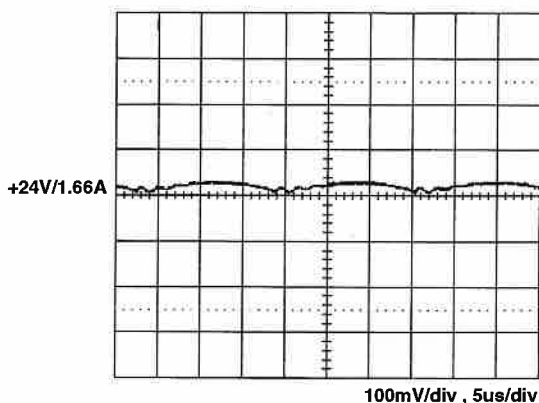
- Pin 1 + 24V
- 2 + 24V
- 3 GND
- 4 GND

7.4 Packing

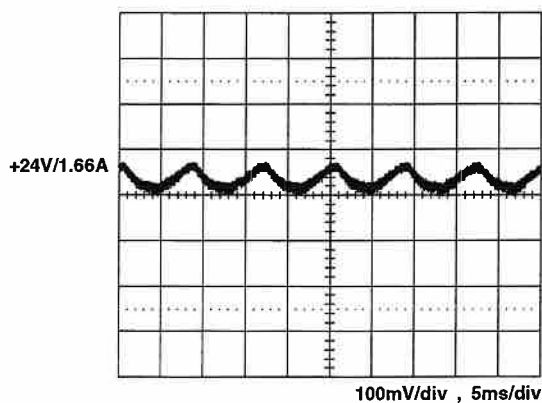
- Net weight : 81.6g approx. /unit
- Carton size(mm) : 402 (L) x 382 (W) x 225 (H)
- Quantity : 100 units / carton
- Gross weight : 10.7 kg approx. / carton

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

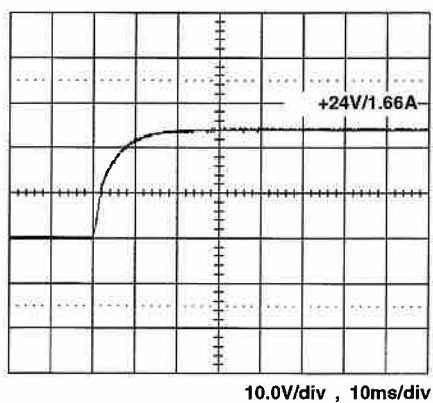
8.1 Switching frequency ripple



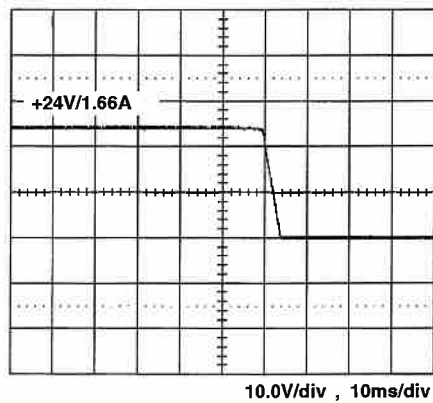
8.2 Line frequency ripple



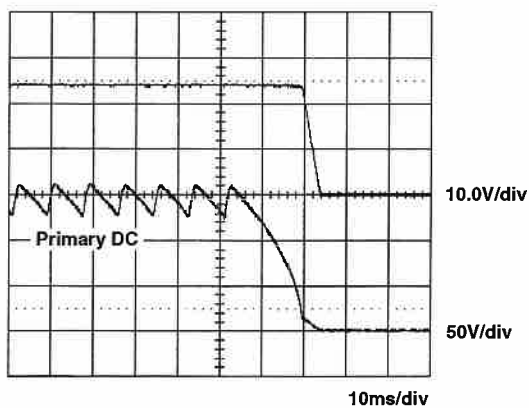
8.3 Output turn on wave form



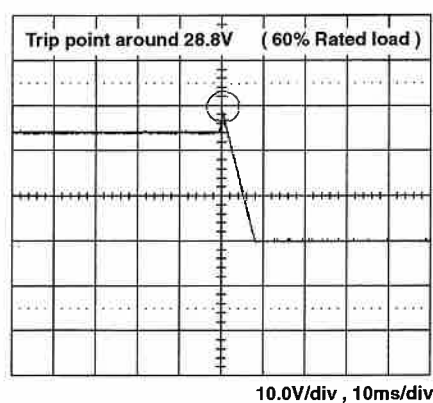
8.4 Output turn off wave form



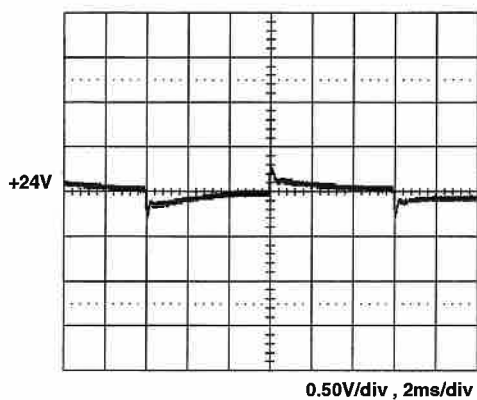
8.5 Hold-up time



8.6 Over voltage protection

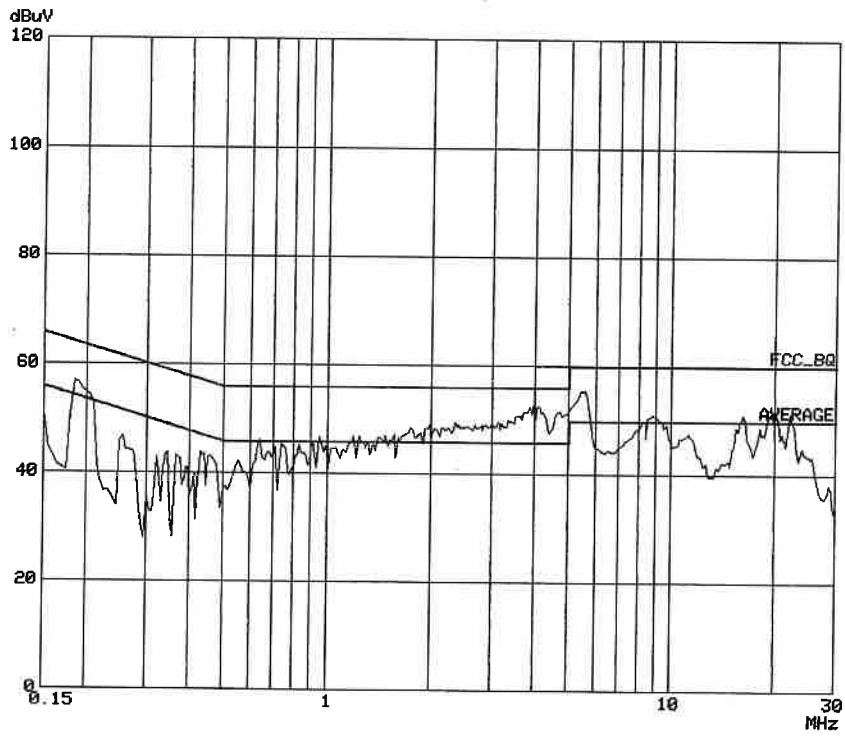


8.7 +24V step response

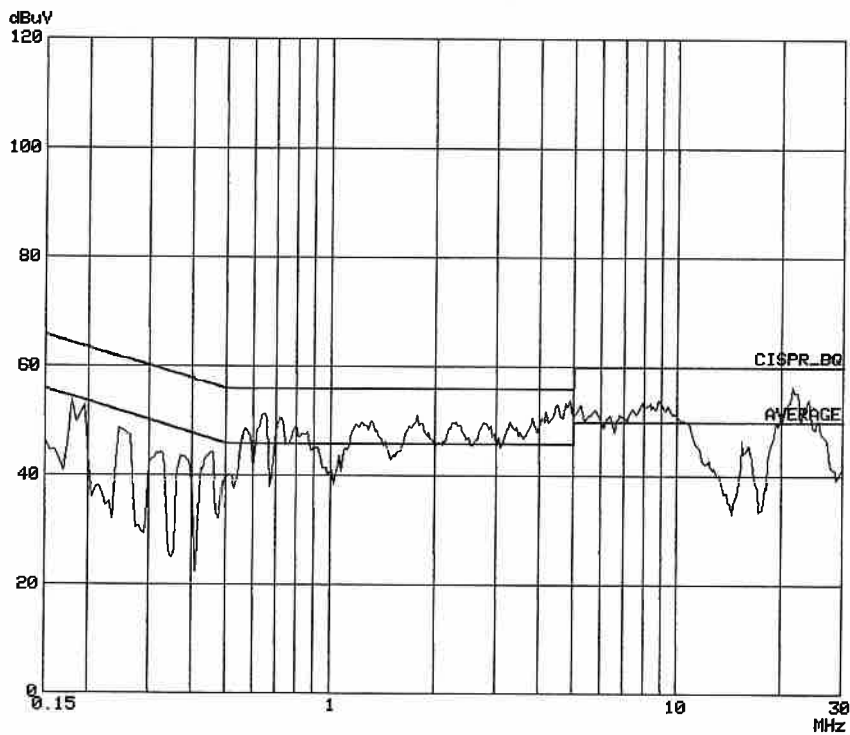


+24V step from 0.33A to 1.66A

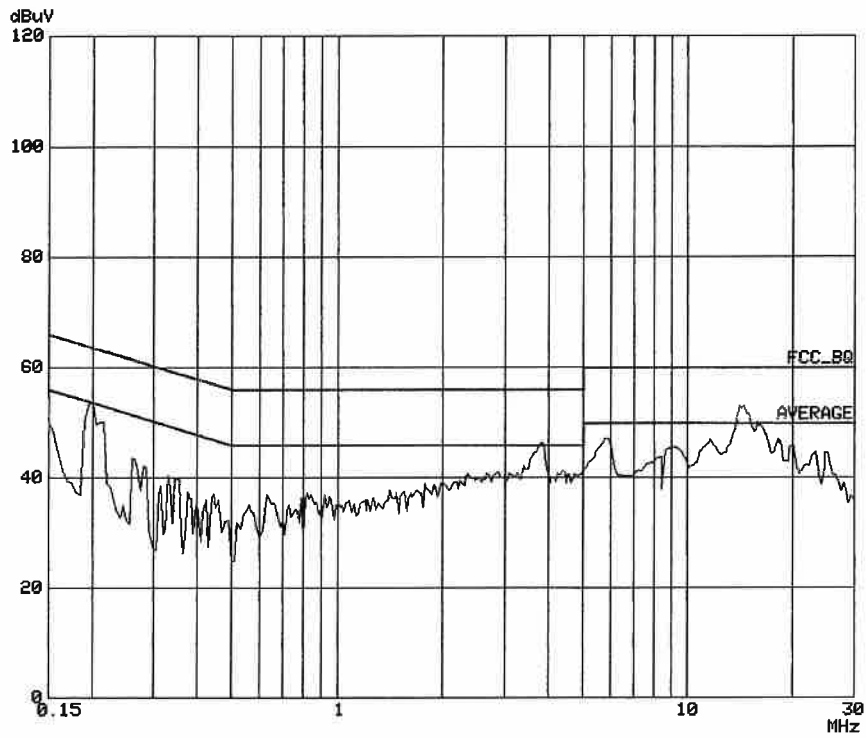
8.9 FCC B performance (Class I)



9.0 CISPR 22 B(Class I)



9.1 FCC B performance (Class II)



9.2 CISPR 22 B (Class II)

