

**SPECIFICATION**

**For**

SWITCHING POWER SUPPLY

**M/N : SNP-H049-M**

STANDARD PRODUCT

Reviewed by Product Engineer	Clary 120414					
Typed by Document Assistant	葉山英 120314					
<b>SKYNET ELECTRONIC</b>		<b>LAST REV. NO.</b>				

## 1.0 INTRODUCTIONS

SNP-H049-M is an open frame, general purpose and rated 40W SMPS. It also features in Class I/ II installation, and Medical safety.

## 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

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

### 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, 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

< 10000uF

## 4.0 GENERAL FEATURES

### 4.1 Efficiency

Rated load efficiency : 85% typical

### 4.2 Hold up time

18 ms typical

### 4.3 Protection

#### 4.3.1 Over-voltage protection

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

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 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

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

## 6.0 INTERNATIONAL STANDARDS

### 6.1 Safety standards

Label voltage : 100Vac to 240Vac

UL 60601-1

CSA 22.2 NO.60601-1

EN 60601-1

### 6.2 EMI standards

FCC docket 20780 curve "B"

CISPR 22 "B"

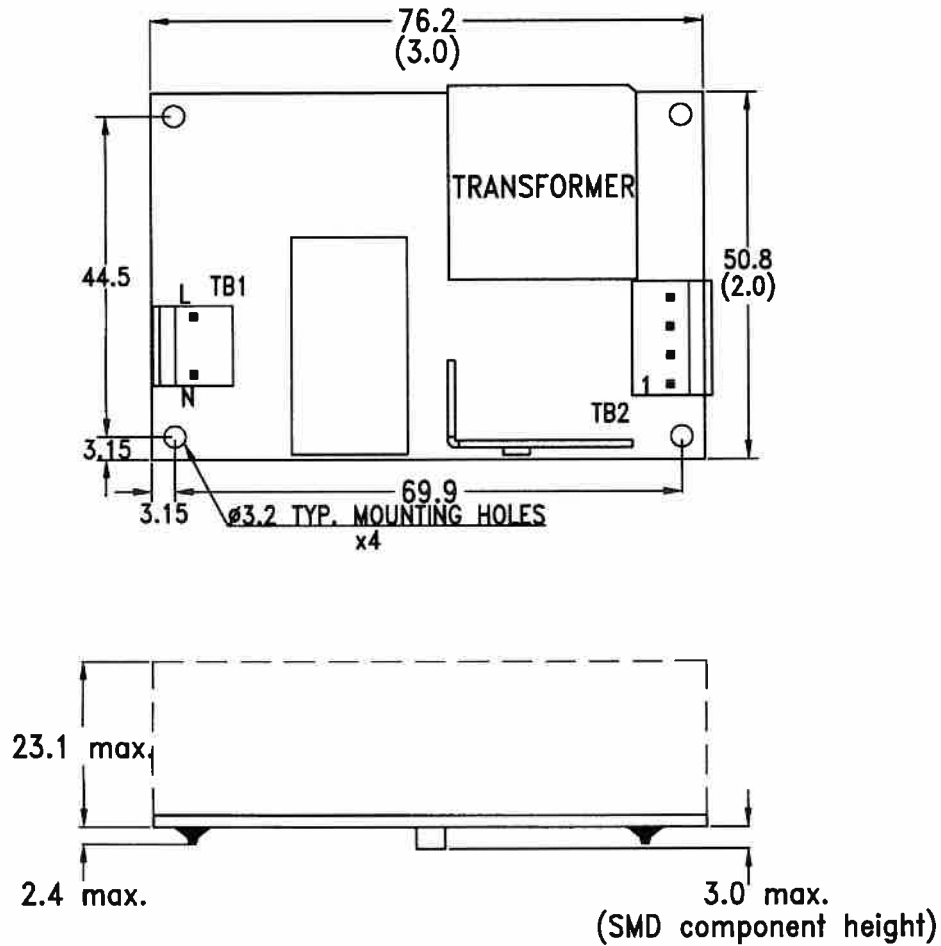
EN 61000-3-2 class "A"

EN 61000-3-3

### 6.3 EMS standards

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

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

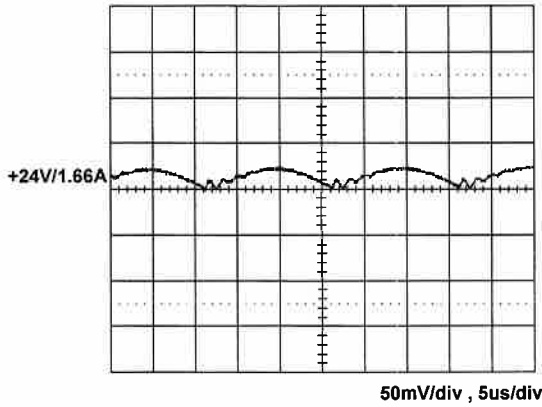
- Pin 1 + 24V
- Pin 2 + 24V
- Pin 3 GND
- Pin 4 GND

7.4 Packing

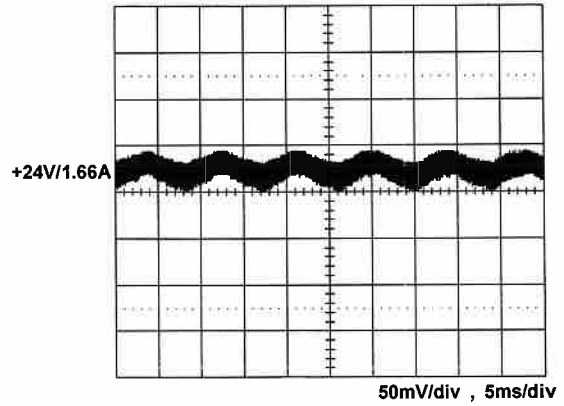
- Net weight : 81.6g approx. /unit
- Carton size (mm) : 402 (L) x 382 (W) x 225 (H)
- Quantity : 100 units / carton
- Gross weight : 10.7 kg approx. / carton

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

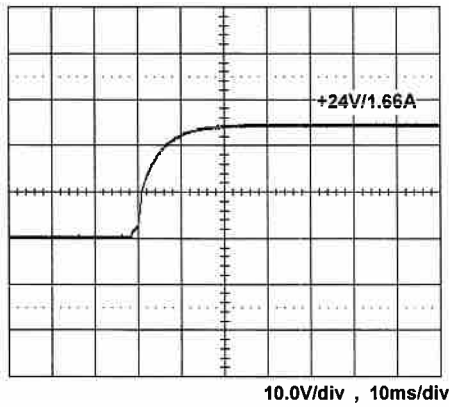
8.1 Switching frequency ripple



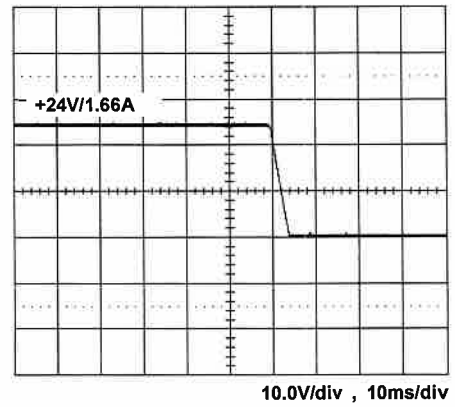
8.2 Line frequency ripple



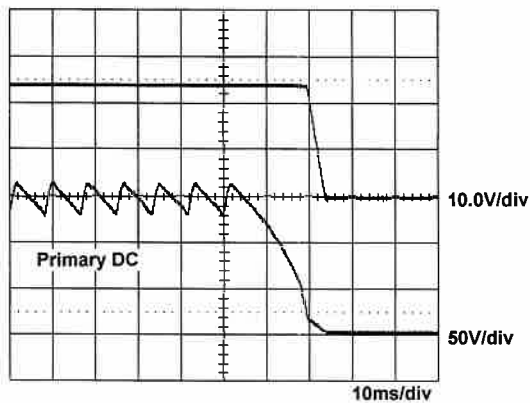
8.3 Output turn on wave form



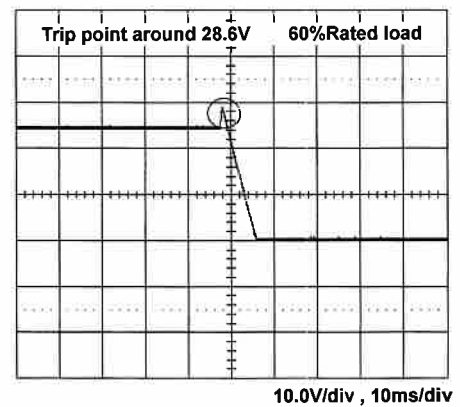
8.4 Output turn off wave form



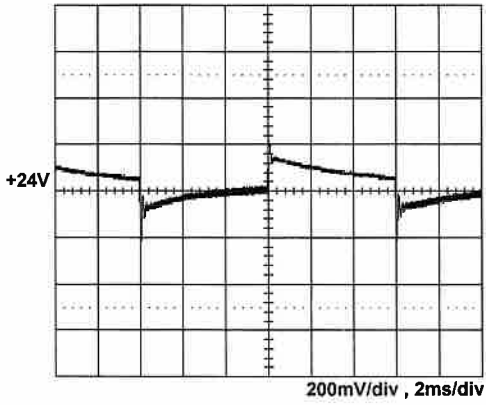
8.5 Hold-up time



8.6 Over voltage protection

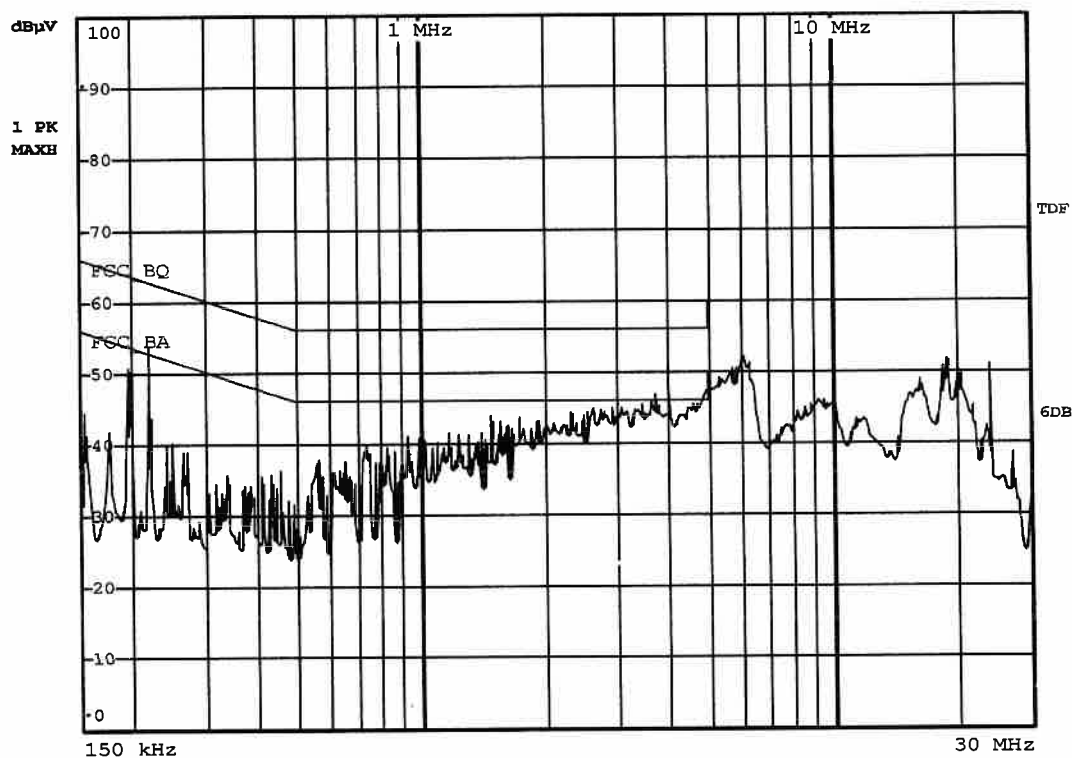


8.7 +24V step response

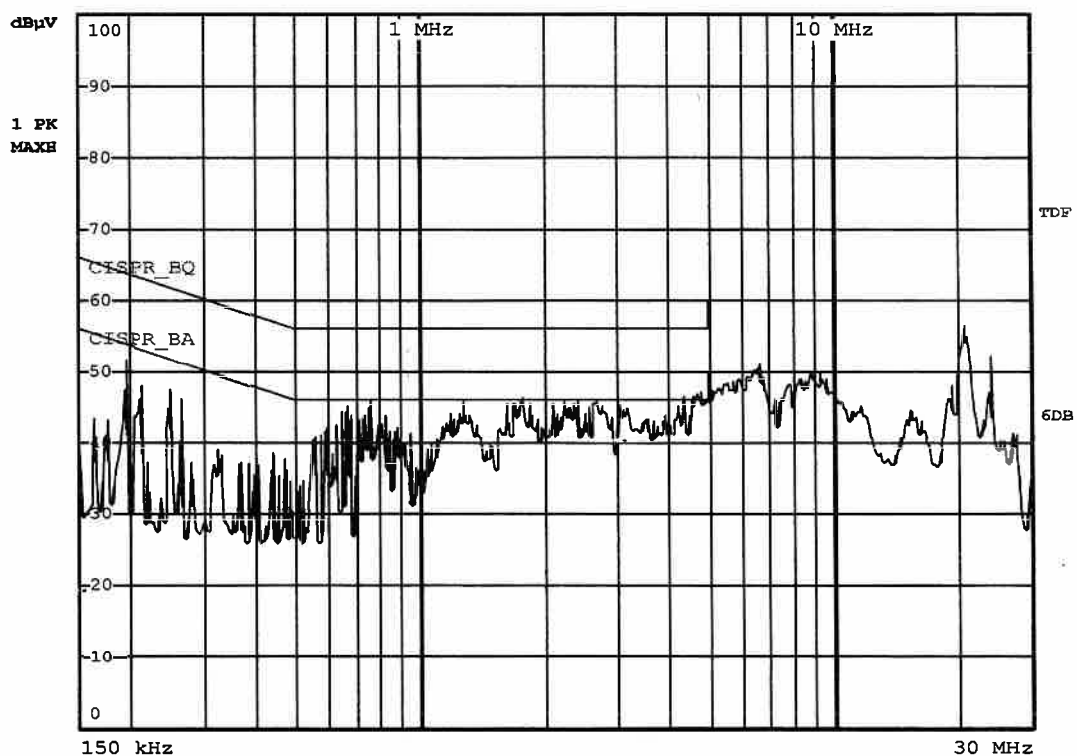


+24V step from 0.33A to 1.66A

### 8.8 FCC B QP performance Class I

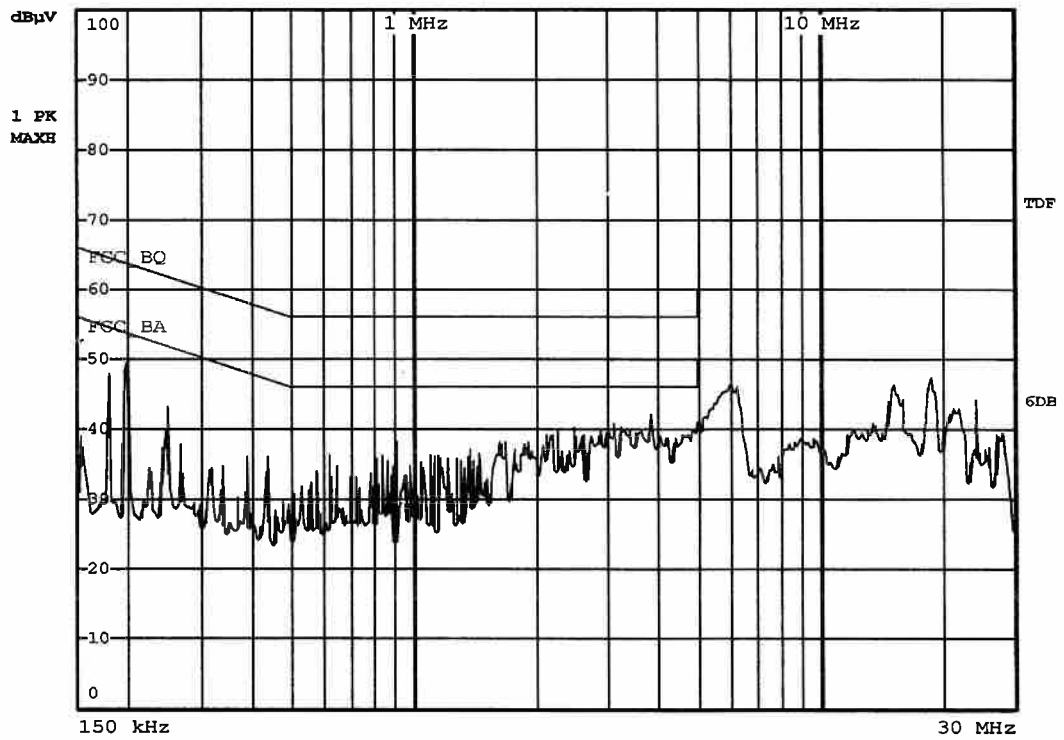


### 8.9 CISPR 22 B QP performance Class I





8.10 FCC B QP performance Class II



8.11 CISPR 22 B QP performance Class II

