

# SPECIFICATION

for

SWITCHING POWER SUPPLY

M/N : SNP-Z10T

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SKYNET ELECTRONIC				LAST REV. NO.		

**1.0 INTRODUCTIONS**

The SNP-Z10T is a single output, 110Watts version switching power supply.

**2.0 INPUT SPECIFICATIONS**

**2.1 Input Voltage**

The range of input voltage is from 90VAC to 264VAC and the nominal line voltage is 115V 60Hz/230V 50Hz.

**2.2 Input frequency**

The range of input frequency is from 47Hz to 63Hz.

**2.3 Input current**

The maximum input current is 2A at 115VAC or 1A at 230VAC.

**2.4 Inrush current**

The inrush current will not exceed 30A at 115VAC input or 60A at 230VAC input, cold start, 25°C.

**3.0 OUTPUT SPECIFICATIONS**

**3.1 Load range**

output	min. load	rated load	max. load	peak load	voltage accuracy
+48V	0A	2.3A	2.7A	3A	47.6V to 48.4V

At factory, in 60% rated load conditions and nominal input, the +48V is checked to be within the specified voltage accuracy range.

The peak can last for around 10 sec. continuously draw peak current will reduce life time and MTBF, and will probably shut down the power supply.

It can take max. load with 18CFM of forced air flow.

**3.2 Ripple and noise**

The peak to peak ripple and noise for each output is less than 120mV at rated load and nominal input. Measuring is done by 15MHz band width limited oscilloscope and terminated each output with a 0.47uF capacitor.

**3.3 Line regulation**

The line regulation for each output is less than + -0.5% while measuring at rated load and + -10% of nominal input voltage changing.

**3.4 Load regulation**

The load regulation for +48V is less than + -1% measuring is done by changing the measured output load + -40% from 60% rated load and nominal line.

**3.5 Remote sense**

The +48V output has remote sense capability.

The compensation of voltage drop for +48V output is 0.5V max.

### 3.6 Loading capacitance

The max. loading capacitance is 1500uF at nominal line @25°C, or 1.4A loading capacitance is 2200uF at 100VAC input @25°C, or no loading capacitance is 4400uF at 100VAC input @25°C.

## 4.0 GENERAL FEATURES

### 4.1 Efficiency

The efficiency is higher than 88% typ. while measuring at nominal line and rated load.

### 4.2 Hold up time

The hold up time is longer than 20mS typ. at 115VAC input and rated load, which is measured from the end of the last charging pulse to when the main output drops down to 95% output voltage.

### 4.3 Protection

For some reason the power supply fails to control itself, the build-in over voltage protection circuit will shut down the outputs to prevent damaging external circuits.

The trip point is around 55V to 62V. The power supply will go into auto-recovery mode against short circuit or over load conditions and will auto-recover while faulty condition is removed.

## 5.0 ENVIRONMENT SPECIFICATIONS

### 5.1 Operating temperature

0°C to 50°C

### 5.2 Cooling

free air convection for 110W.  
with 18CFM forced air flow for 130W.

### 5.3 Operating humidity

5 ~95% RH, non-condensing .

### 5.4 Storage temperature

-40°C to 85°C

### 5.5 Altitude

Will operate properly at any altitude between 0 to 5000m.

## 6.0 INTERNATIONAL STANDARDS

### 6.1 Safety standards

Designed to meet the following regulations:

UL 60950-1(UL)

CAN/CSA-C 22.2 NO.60950-1-07 (CUL)

EN 62368-1(TUV)

GB 4943.1-2022(CCC)

UL/CSA/EN/IEC 62368-1

CSA C22.2 NO. 62368-1-14

**6.2 EMI standards**

Designed to meet the following limits :

EN55022 "B"

FCC docket 20780 curve "B"

EN61000-3-2

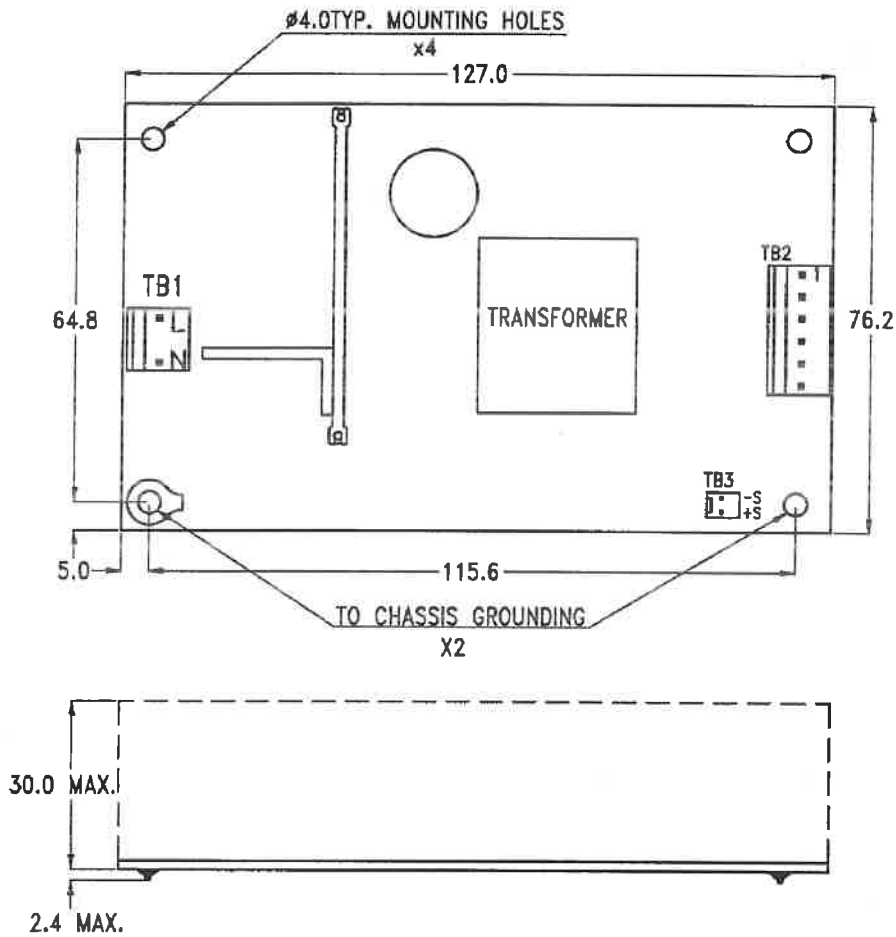
EN61000-3-3

**6.3 EMS standards**

Designed to meet the following standards :

EN61000-4-2	8KV contact discharge, 15KV air discharge	Criterion A
EN61000-4-3	10V/m	Criterion A
EN61000-4-4	2KV (100KHz)	Criterion A
EN61000-4-5	2KV	Criterion A
EN61000-4-6	10V with 80% AM	Criterion A
EN61000-4-8	30A/M	Criterion A
EN61000-4-11	30 % dips 500 ms,	Criterion A
	60 % dips 200 ms,	Criterion B
	100 % dips 5000 ms,	Criterion B
	100 % dips 200 ms,	Criterion B
	100 % dips 10 ms,	Criterion A

7.0 MECHANICAL SPECIFICATION



7.1 Dimensions

Dimensions shown in mm as above. Tolerance specified is + -0.4mm.

7.2 Connectors

- TB1--AC input : Molex 5277-02A or equivalent
- TB2--DC output : Molex 5273-06A or equivalent
- TB3--Remote Sense : Molex 5045-02A or equivalent

7.3 DC output pin assignment

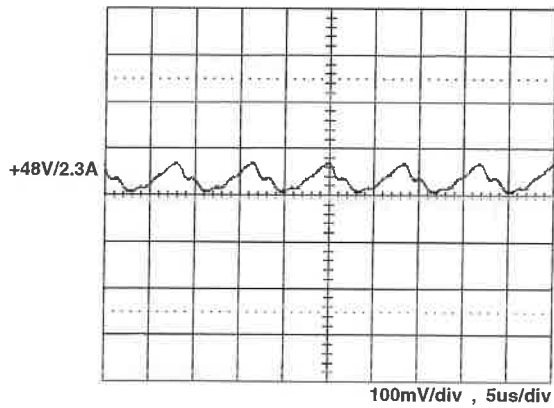
- Pin 1 +48V
- 2 +48V
- 3 +48V
- 4 GND
- 5 GND
- 6 GND

7.4 Packing

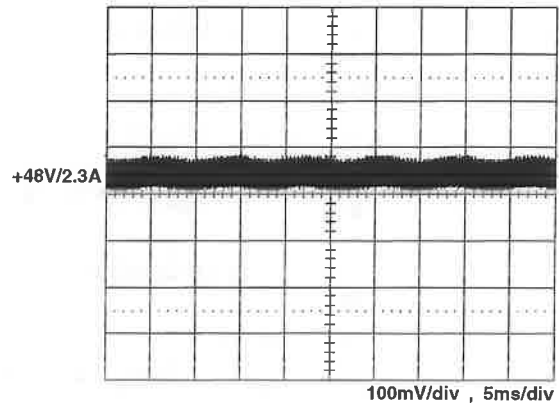
- Net weight : 249g approx. / unit
- Carton size (mm) : 397 (L) x 339 (W) x 327 (H)
- Quantity : 48 units / carton
- Gross weight : 14.5 kg approx. / carton

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

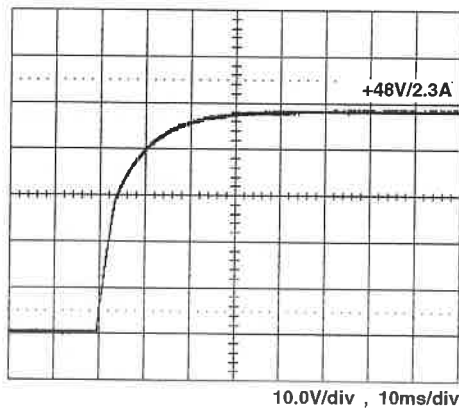
8.1 Switching frequency ripple



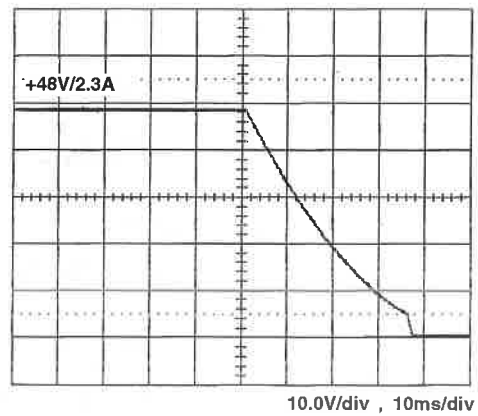
8.2 Line frequency ripple



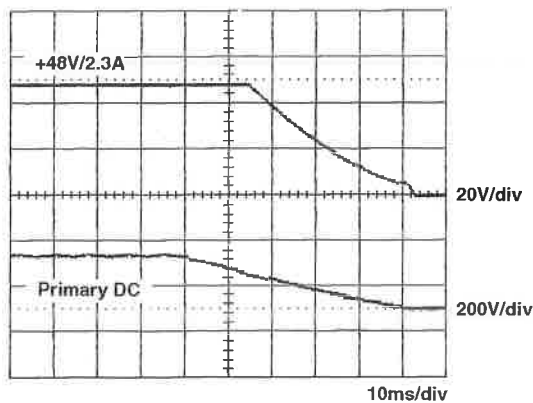
8.3 Output turn on wave form



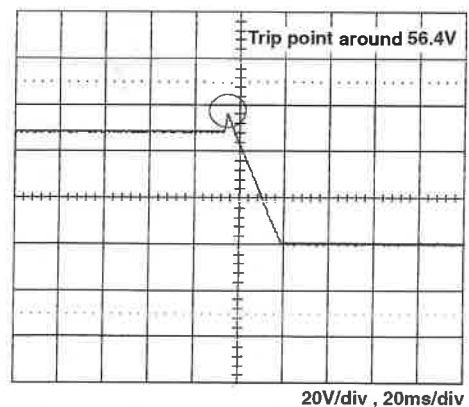
8.4 Output turn off wave form



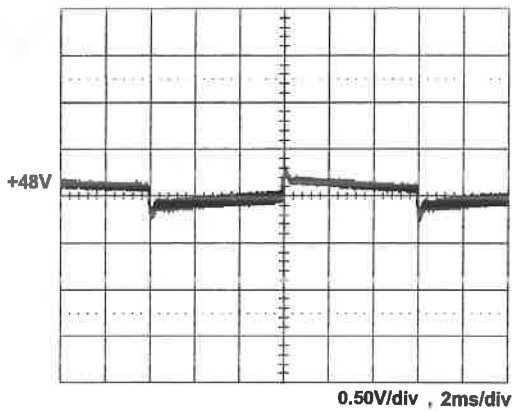
8.5 Hold-up time



8.6 Over voltage protection

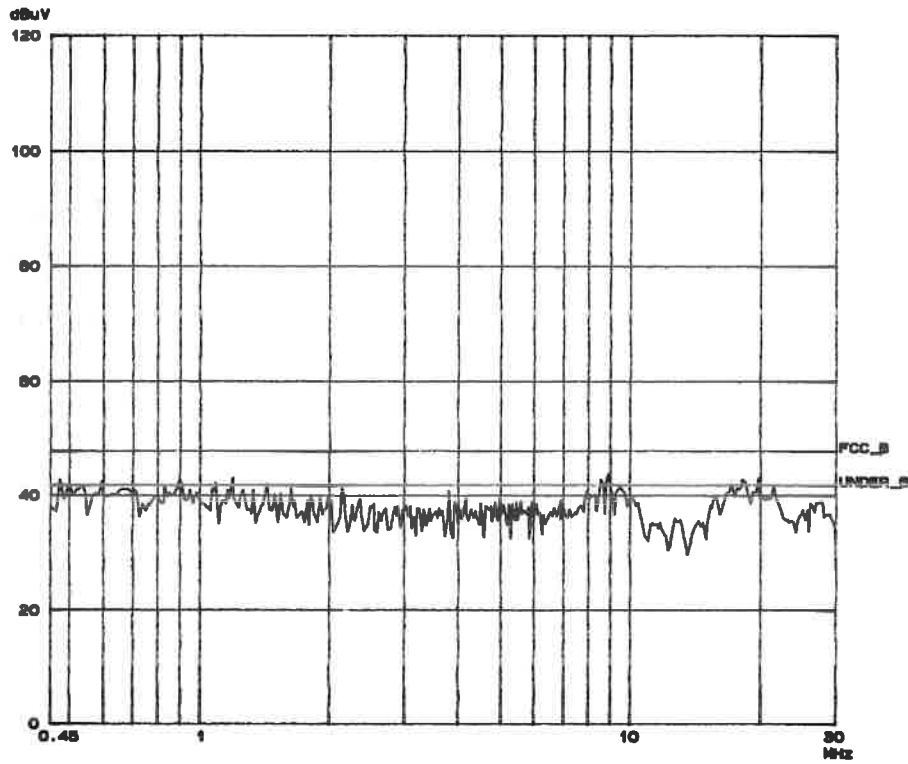


8.7 +48V step response



+48V step from 0.46A to 2.3A

8.8 FCC B performance



8.9 EN 55022 B

