

**SPECIFICATION**

for

SWITCHING POWER SUPPLY

**M/N : SNP-Z206**

Reviewed by Project Manager						
Typed by Document Assistant						
<b>SKYNET ELECTRONIC</b>			<b>LAST REV. NO.</b>			

**1.0 INTRODUCTIONS**

SNP-Z206 is an active PFC plus 180W U-shape universal power converter. The power high density, it is designed to comply EN61000-3-2 regulations.

**2.0 INPUT SPECIFICATIONS**

**2.1 Input Voltage**

The range of input voltage is from 85VAC to 264VAC. Nominal line 115VAC/230VAC.

**2.2 Input frequency**

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

**2.3 Input current**

The maximum input current is 4A at 115VAC or 2A at 230VAC.

**2.4 Inrush current**

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

**3.0 OUTPUT SPECIFICATIONS**

**3.1 Load range**

output	min. load	rated load	max. load	voltage accuracy
+5V	1A	36A	45A	4.75V to 5.25V

At factory, the output in 60% rated load and nominal line condition, the +5V output is set to between 4.95V and 5.05V.

**3.1.1 Total output power**

180W with convection cooling. 180W~225W with 18CFM forced air cooling.

**3.2 Ripple and noise**

The peak to peak ripple and noise for each output is less than 50mV at rated load and nominal line. Measuring is done by 15MHz band width limited oscilloscope and terminated output with a 0.47uF capacitor.

**3.3 Line regulation**

The line regulation for each output is less than + -1% while measuring at rated load and + -10% of nominal line input voltage changing.

**3.4 Load regulation**

The load regulation for +5V output is less than + -1% measuring are done by changing the measured output load + -40% from 60% rated load and nominal line.

**3.5 Remote Sense**

The +5V output have remote sense capability, Compensates for 0.5V lead drop min.

### 4.0 GENERAL FEATURES

#### 4.1 Efficiency

The efficiency is typical 85% while measuring at nominal line and rated load.

#### 4.2 Hold up time

The hold up time is longer than 20mS 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 of crowbar circuit is around 5.7V to 7.0V. To recover from over voltage protection, cycle the AC line OFF and ON to restart the power supply.

The power supply will generate a hiccup mode to protect itself against short circuit or over load conditions, and will return to normal after wrong conditions are removed.

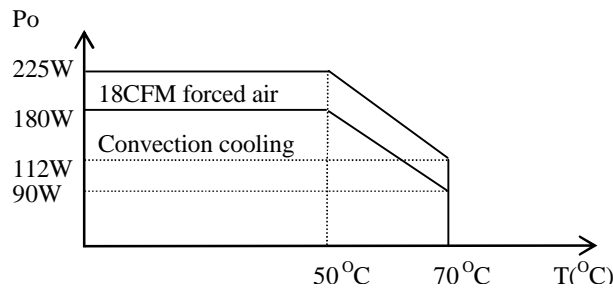
#### 4.4 Thermal protection

The power supply has thermal protection.

### 5.0 ENVIRONMENT SPECIFICATIONS

#### 5.1 Operating temperature

0°C to 70°C , 0 °C to 50 °C no derating, above the 50 °C, derate 2.5%/ °C up to 50% at 70 °C.



#### 5.2 Storage temperature

-20°C to 85°C

#### 5.3 Altitude

Will operate properly at any altitude between 0 to 10000ft.

**6.0 INTERNATIONAL STANDARDS****6.1 Safety standards**

Designed to meet the following standards :

UL 60950

CSA 22.2 NO.234

EN 60 950

**6.2 EMI standards**

Designed to meet the following limits :

FCC docket 20780 curve "B"

CISPR 22 "B"

EN 61000-3-2 class D

**6.3 EMS standards**

Designed to meet the following limits :

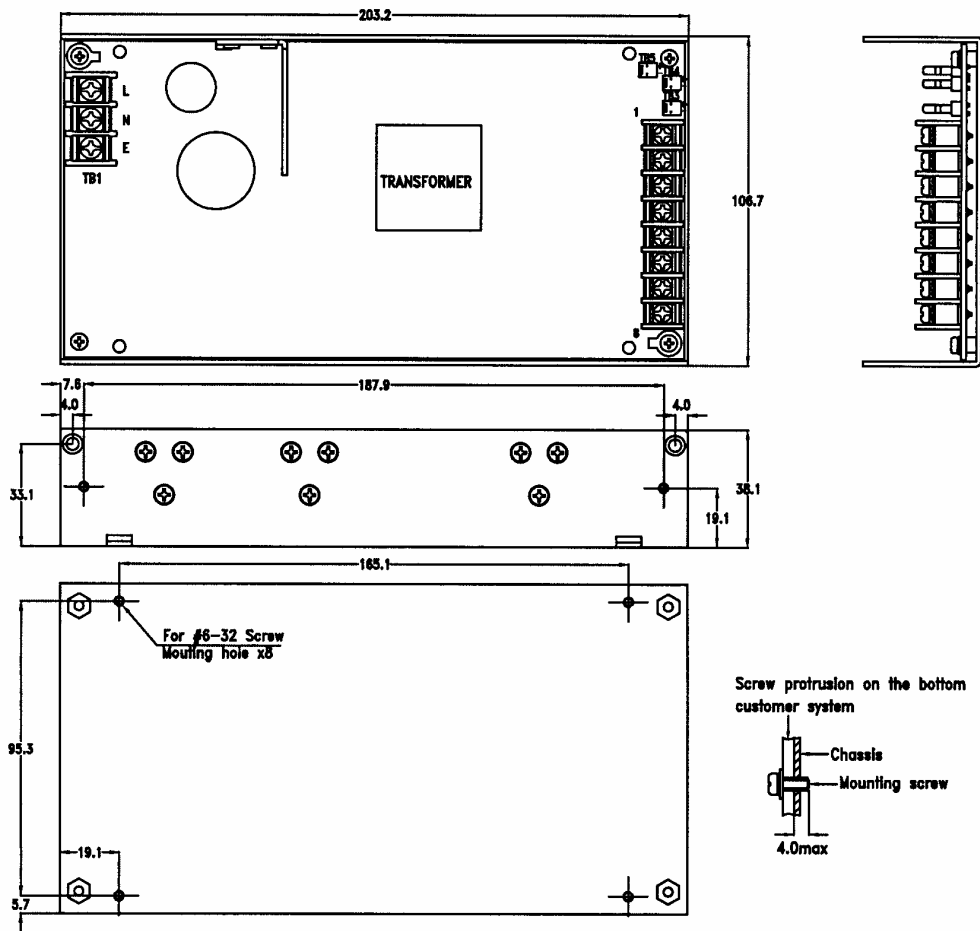
EN61000-4-2      6KV contact discharge, 8KV (air discharge) criteria A

EN61000-4-3      10V/M      criteria A

EN61000-4-4      2KV      criteria A

EN61000-4-5      2KV      criteria A

7.0 MECHANICAL SPECIFICATION



7.1 Dimensions

Dimensions shown in mm as above.

Tolerance specified is + -0.4mm between mounting holes, + -0.8mm other dimensions.

7.2 Connectors

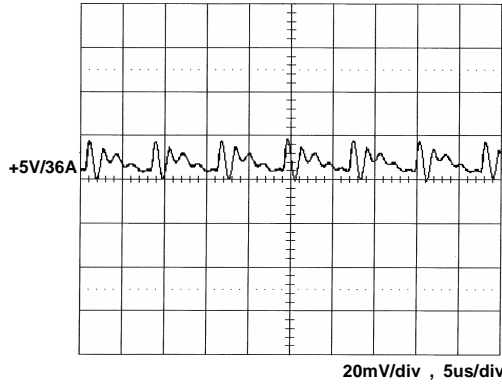
- TB1--AC input : Terminal blocks
- TB2--DC output : Terminal blocks
- TB3--For +5V fan use : Molex 5045-02A or equivalent
- TB4--For LED use only : Molex 5045-02A or equivalent
- TB5--For remote sense use only : Molex 5045-02A or equivalent

7.3 DC output assignment

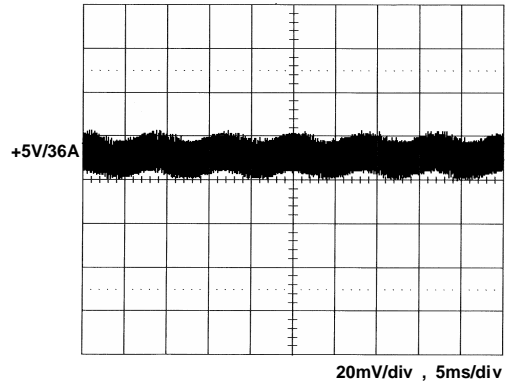
Position	1.	+5V	5.	GND
	2.	+5V	6.	GND
	3.	GND	7.	+5V
	4.	GND	8.	+5V

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

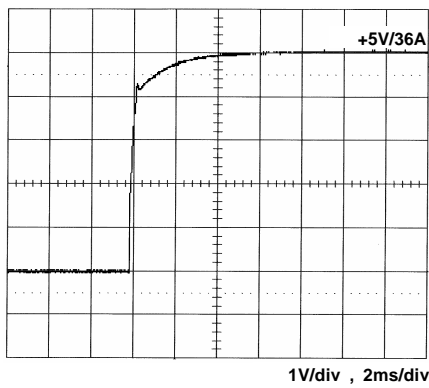
8.1 Switching frequency ripple



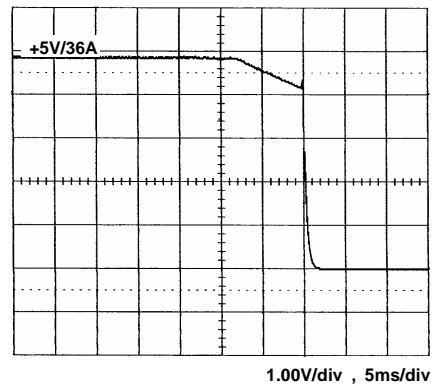
8.2 Line frequency ripple



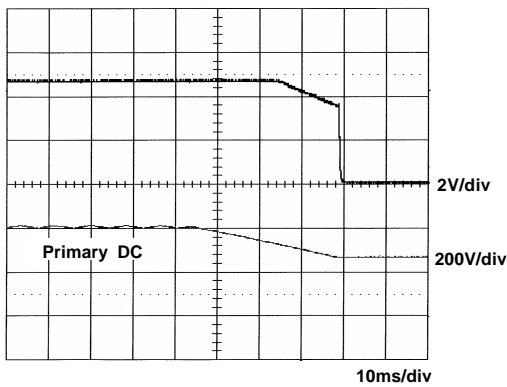
8.3 Output turn on wave form



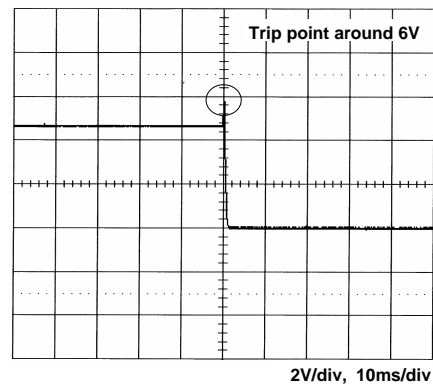
8.4 Output turn off wave form



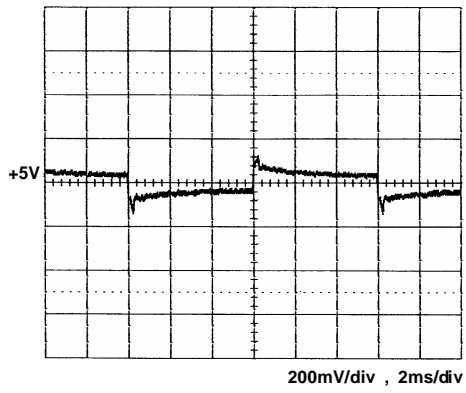
8.5 Hold-up time



8.6 Over voltage protection

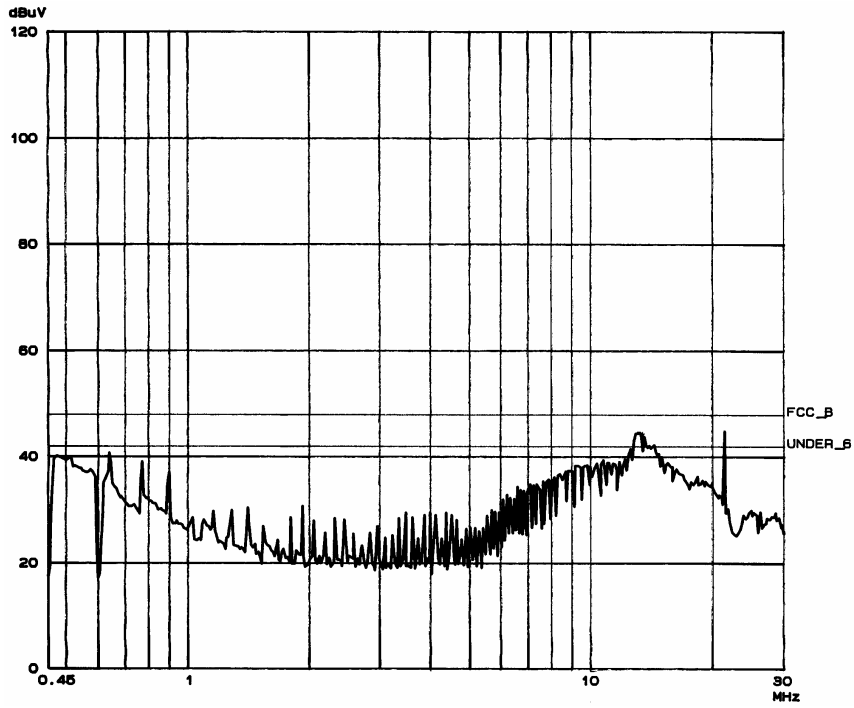


8.7 +5V step response



+5V step from 7.2A to 36A

### 8.8 FCC B performance



### 8.9 CISPR B

