Skynet®
THE RELIABLE SOURCE

General Purpose (Universal)

PFC + 100W
SNP-Z10 Series

Description:

Open frame size of 3" X 5" has become an industrial standard for more than 10 years. The power density is around 2.0 watts/cu.in. at very beginning and then stays at 3.0 watts/cu.in. for a long time. Now, the SNP-Z10 series can offer 6.0 watts/cu.in. plus active PFC in 3" X 5" X 1.2" size. Undoubtedly the SNP-Z10 series is the state-of-the-art at the moment. The patent was granted for this cirucit.

Model available:

- SNP-Z106 for 5V/20A
- SNP-Z107 for 12V/9A
- SNP-Z108 for 15V/7A
- SNP-Z109 for 24V/4.5A
- SNP-Z10T for 48V/2.3A
- SNP-Z101 for 5V/11.5A, 12V/3A, -12V/0.5A
- SNP-Z103 for 5V/7A, 12V/8A
- SNP-Z10D for 3.3V/10A, 5V/8A, 12V/0.5A
- SNP-Z10B for 3.3V/25A

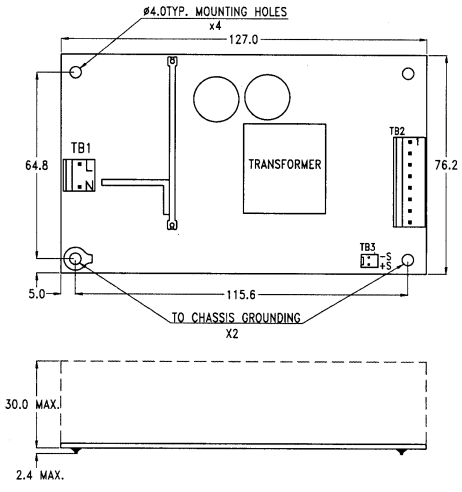
General Specifications:

Input voltage ..... 90 VAC to 264 VAC
Input frequency ..... 47 Hz to 63 Hz
Inrush current .....less than 30A at 115VAC
less than 60A at 230VAC
cold start, 25°C
Efficiency ..... 80%~90% depends on models
Hold up time ..... 20mS typical
at rated load and 115VAC
Over load protection ..... auto recovery
Short circuit protection..... auto recovery
Over voltage protection ..... latch off

Max. capacitive load ..... SNP-Z106 / 30000uF,
SNP-Z107 / 10000uF, SNP-Z109 / 2700uF
Remote Sense ..... Compensates for 0.5V load drop
min.Operating temperature ..... 0°C to 50°C convection
Cooling .....Free air convection for 100W
with 18CFM forced air flow for 130W
Storage temperature ..... -20°C to +85°C
EMI ..... EN55022 "B", FCC "B"
Harmonics EN61000-3-2
EMS EN61000-4-2,-3,-4,-5,-6,-11
Safety .....UL 60950
CSA 22.2 No. 234, EN60950

Mechanical Specifications:

SNP-Z106



Notes:

1. Dimensions shown in mm as above.
   Tolerance: +/-0.4mm.
2. Size:
2.1 SNP-Z106, Z107, Z108, Z109, Z10T, Z10B
   127.0mm X 76.2mm X 32.4mm
   5" X 3" X 1.28"
2.2 SNP-Z101, Z103, Z10D
   127.0mm X 76.2mm X 34.4mm
   5" X 3" X 1.35"
3. Connectors:
   AC input : Molex 5277-02A or equivalent
   DC output : Molex 5273 or equivalent
   Remote Sense : Molex 5045-02A or equivalent

-James-

Output Specifications:

MODEL NO.	OUTPUT RAIL	LOAD			VOLTAGE ACCURACY	RIPPLE NOISE	LINE REG.	LOAD REG.
		MIN.	RATED	MAX				
SNP-Z106	+5V	0A	20A	26A	+4.95V~+5.05V	50mVpp	±0.5%	±1%
SNP-Z107	+12V	0A	9A	10.8A	+11.90V~+12.10V	120mVpp	±0.5%	±1%
SNP-Z108	+15V	0A	7A	8.7A	+14.90V~+15.10V	120mVpp	±0.5%	±1%
SNP-Z109	+24V	0A	4.5A	5.4A	+23.80V~+24.20V	200mVpp	±0.5%	±1%
SNP-Z10T	+48V	0A	2.3A	2.7A	+47.60V~+48.40V	200mVpp	±0.5%	±1%
SNP-Z101	+5V	0A	11.5A	15A	+4.95V~+5.05V	50mVpp	±0.5%	±1%
	+12V	0A	3A	5A	+11.40V~+12.60V	100mVpp	±0.5%	±5%
	-12V	0A	0.5A	0.5A	-11.40V~-12.60V	100mVpp	±0.5%	±5%
SNP-Z103	+5V	0A	7A	10A	+4.95V~+5.05V	50mVpp	±0.5%	±1%
	+12V	0A	8A	10A	+11.40V~+13.20V	120mVpp	±0.5%	±5%
SNP-Z10D	+3.3V	0A	10A	15A	+3.20V~+3.40V	50mVpp	±0.5%	±1%
	+5V	0A	8A	10A	+4.75V~+5.25V	50mVpp	±0.5%	±5%
	+12V	0A	0.5A	0.5A	+11.40V~+12.60V	100mVpp	±0.5%	±5%
SNP-Z10B	+3.3V	0A	25A	30A	+3.20 ~+3.40V	50mVpp	±0.5%	±1%

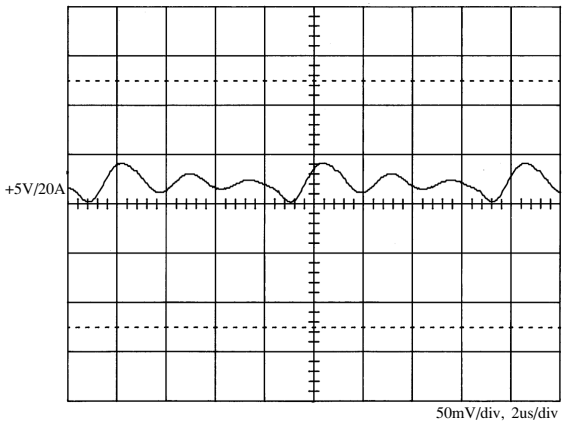
Note:

1. The total output current is rated load with free air convection and max. load with 18CFM of forced air flow over the unit.
2. At factory, in 60% rated load condition, each output is checked to be within voltage accuracy.
3. Line regulation is defined by changing ±10% of input voltage from nominal line at rated load.
4. Load regulation is defined by changing ±40% of measured output load from 60% rated load at another output set to 60% rated load.
5. Ripple & noise is measured by using 15MHz bandwidth limited oscilloscope and terminated each output with a 0.47uF capacitor and a 47*u* electrolytic capacitor at rated load and nominal line.
6. Hold up time is measured from the end of the last charging pulse to the time which the main output drops down to low limit of main output at rated load and nominal line.
7. Efficiency is measured at rated load and nominal line.

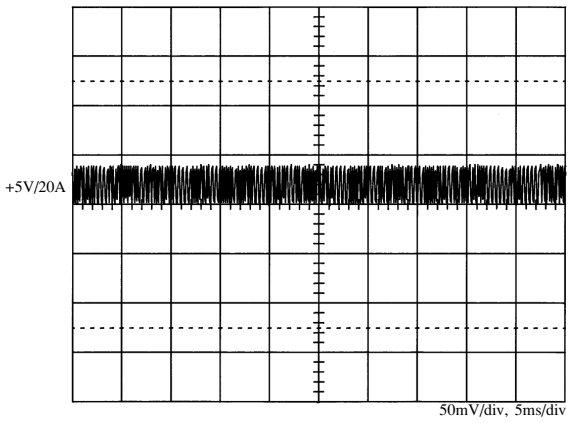
-James-

Performance for SNP-Z106:

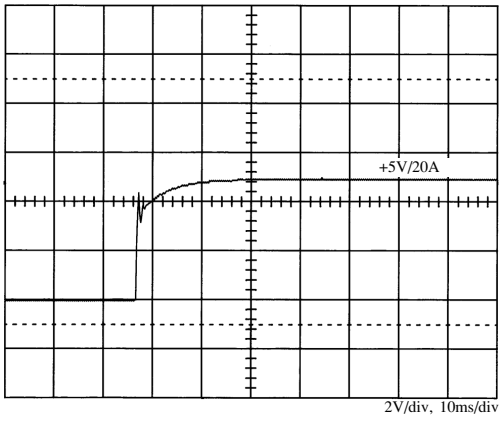
1. Switching frequency ripple



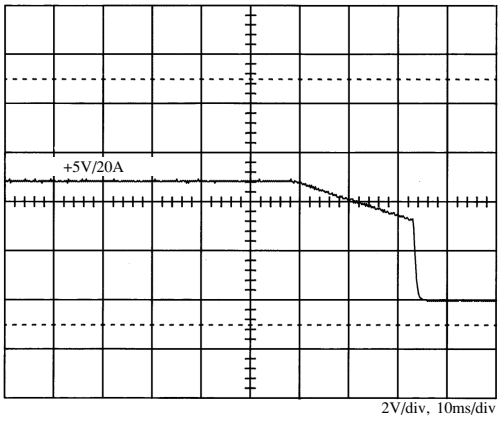
2. Line frequency ripple



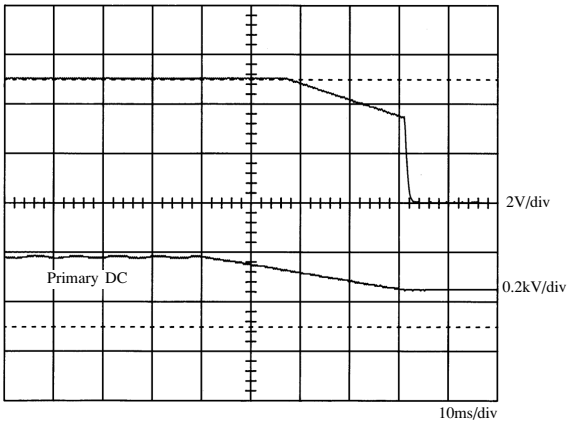
3. Output turn on wave form



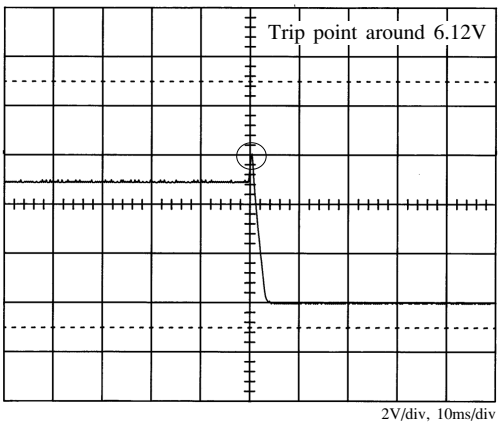
4. Output turn off wave form



5. Hold-up time

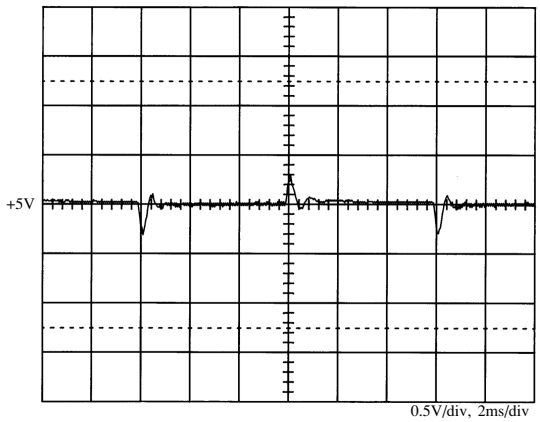


6. Over voltage protection



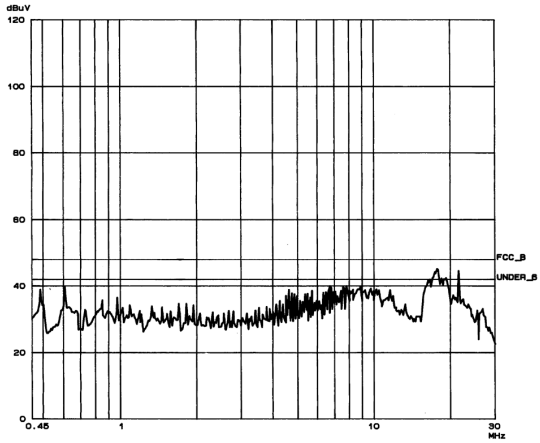
-James-

7. +5V step response

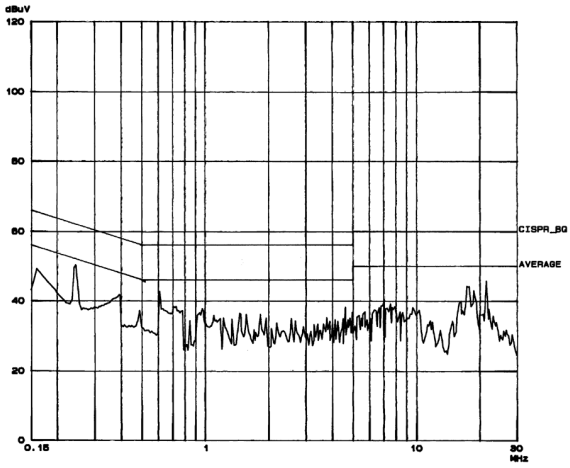


+5V step from 4A to 20A

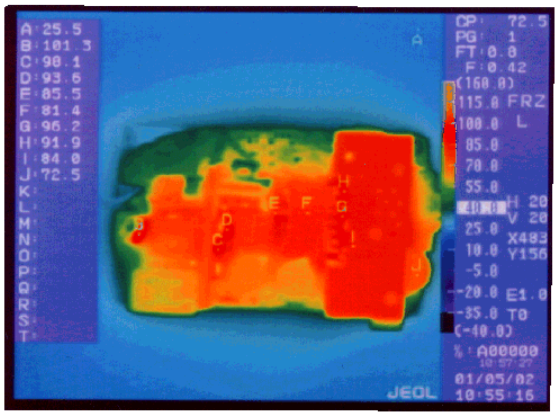
8. FCC B



9. EN55022 B



10. Thermal profile



Test condition:
M/N : SNP-Z106, Input : 104V
Output : 5V/20A, Ambient : 25.5°C

-James-