

# General Purpose (Universal)



### **Features:**

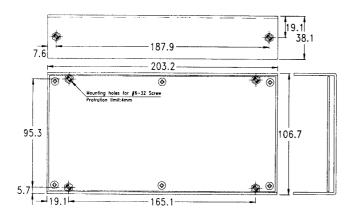
- With built-in PFC
- Only 1.5 inch height
- 4.0 Watt per cubic inch
- With ITE safety only
- Efficiency between 82% to 87%
- Operation from 0°C to 70°C by convection

## **General Specifications:**

Input voltage	
Input frequency	
Power factor	
Inrush current	less than 30A at 115VAC
	or 60A at 230VAC cold start, 25°C
Efficiency	
Hold up time	
	at rated load and 115VAC
Over load protection	auto recovery
Short circuit protection	auto recovery

Over voltage protecti	on latch off			
Operating temperature (open frame type) 0°C to 70°C				
	derating: 2.5% / °C > 50°C			
Cooling	200W free air convection			
	250W 18CFM forced air			
Storage temperature	-20°C to +85°C			
EMI	EN55022 "B"			
Harmonics	EN61000-3-2 class D			
EMS	EN61000-4-2,-3,-4,-5,-6,-11			
Safety	UL 60950			
	CSA C22.2 No. 234, TUV EN60950-1			

# **Mechanical Specifications:**



#### Notes:

- 1. Dimensions shown in mm as left. Tolerance: +/-1mm (Excluding cables).
- 2. Size:
- 106.7 X 203.2 X 38.1 (mm) 4.2" X 8.0" X 1.5"
- 4.2 X 8.0 X 3. Packing:
- Packing: Net weight: 740 g approx. / unit Gross weight: 14 kg approx. / carton, 16 units / carton Carton size (mm): 426 (L) x 313 (W) x 267 (H)
- Connectors: AC input : Terminal blocks DC output: Terminal blocks Fan, Remote sense, LED:
  - Molex 5045-02A or equivalent



### **Output Specifications:**

MODEL	OUTPUT	LOAD		VOLTAGE	RIPPLE	LINE	LOAD	
NO.	RAIL	MIN.	RATED	MAX.	ACCURACY	NOISE	REG.	REG.
SNP-Z201	+5V	2A	20A	25A	+4.95V~+5.05V	50mVpp	±1%	±1%
	+12VA	0A	6A	8A	+11.4V~+12.60V	120mVpp	±1%	±1%
	+12VB	0A	2A	3A	+11.4V~+12.60V	120mVpp	±1%	±5%
SNP-Z20D	+3.3V	2A	16A	30A	+3.20V~+3.40V	50mVpp	±1%	±1%
	+5V	2A	12A	20A	+4.75V~+5.25V	50mVpp	±1%	±1%
	+12V	0.5A	5A	10A	+11.40V~+12.60V	120mVpp	±1%	±1%
SNP-Z206	+5V	0A	36A	45A	+4.95V~+5.05V	50mVpp	±1%	±1%
SNP-Z207	+12V	0A	17A	21A	+11.40V~+12.20V	120mVpp	±1%	±1%
SNP-Z208	+15V	0A	13.5A	17A	+14.25V~+15.75V	150mVpp	±1%	±1%
SNP-Z205	+18V	0A	11.3A	14A	+17.1V~+18.9V	150mVpp	±1%	±1%
SNP-Z209	+24V	0A	8.5A	10.5A	+23.80V~+24.20V	200mVpp	±1%	±1%
SNP-Z20T	+48V	0A	4.3A	5.2A	+45.60V~+50.40V	200mVpp	±1%	±1%

#### Note:

1. Each output can provide up to max load separately when the power supply starts up. To exceed the max. output power continuously is not allowed.

2. At factory, in 60% rated load condition, each output is checked to be within voltage accuracy.

3. Line regulation is defined by changing  $\pm 10\%$  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 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.

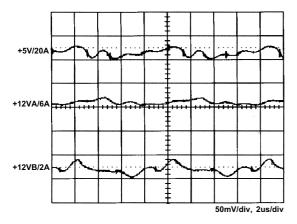
8. +12VB is floating.

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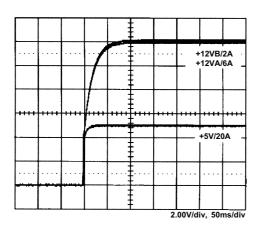


### **Performance for SNP-Z201:**

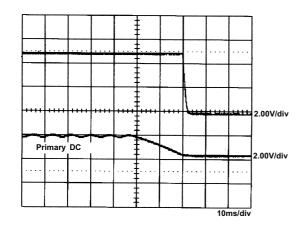
1. Switching frequency ripple



3. Output turn on wave form



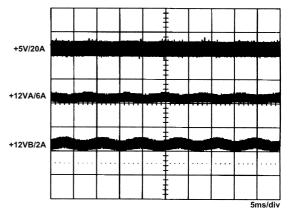
5. Hold-up time



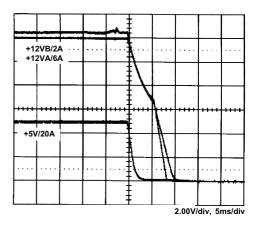
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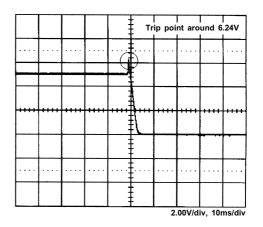
2. Line frequency ripple



4. Output turn off wave form

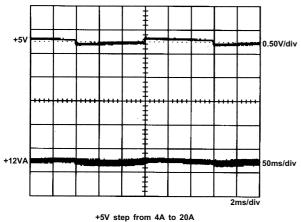


6. Over voltage protection



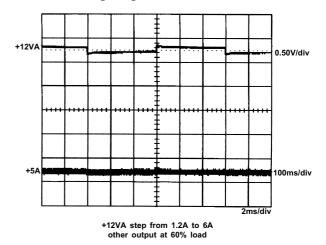


7. +5V step response

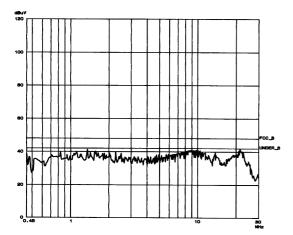


+5V step from 4A to 20A other output at 60% load

8. +12V step response



9. FCC B



10. CISPR 22 B

