

IT & Medical Applications (Universal)



Features:

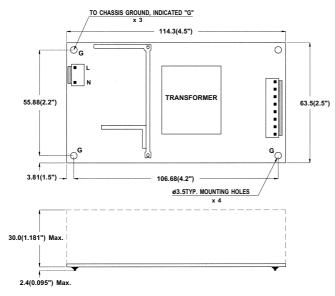
- Only 1.28 inch height
- 5.9 Watt per cubic inch
- With ITE & Medical safety
- Efficiency between 79% to 87%
- Operation from 0°C to 70°C by convection

General Specifications:

Input voltage	90VAC to 264VAC
Input frequency	47Hz to 63Hz
Inrush current	less than 30A at 115VAC
	less than 60A at 230VAC
Efficiency	79%~87% depends on models
	at rated load and 115VAC
Hold up time	16ms typical
	at rated load and 115VAC
Over load protection	auto recovery
Short circuit protection	auto recovery

Over voltage protection	latch off
Operating temperature (open frame	type)0 to 70°C
	derating: $2.5\% / ^{\circ}\text{C} > 50 ^{\circ}\text{C}$
Cooling	free air convection
Storage temperature	40°C to +85°C
EMI	FCC"B"
	EN55022"B", EN55011"B"
EMS	EN61000-4-2,-3,-4,-5,-6,-8,-11
Safety	UL 60950-1, UL 2601
	CSA 22.2 No. 60950-1, 601.1
	EN 60950-1, EN 60601-1

Mechanical Specifications:



Notes: 1. Dimensions shown in mm as left. Tolerance: +-1mm (Excluding cables).

- Differisions shown in film as left. Tolerance: + Third (Excluding capies, Size:
 Size:
 43.5 X 114.3 X 32.4 (mm)
- 2. Size: 63.5 X 114.3 X 32.4 (mm) 2.5" X 4.5" X 1.18" Packing:
- Packing:
 Net weight: 235 g approx. / unit
 Gross weight: 16.5 kg approx. / carton, 60 units / carton
 Carton size (mm): 447 (L) x 300 (W) x 301 (H)
- Connectors:
 AC input: JST B2P3-VH or equivalent
 DC output: JST B6P-VH or B8P-VH or equivalent

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PIN NO.	1	2	3	4	5	6	7	8
SNP-Z081	-12V	+5V	+5V	GND	GND	GND	+12V	+12V
SNP-Z081-1	-12V	+5V	+5V	GND	GND	GND	+12V	+12V
SNP-Z08D	+12V	+3.3V	+3.3V	GND	GND	GND	+5V	+5V
SNP-Z083	NC	+5V	+5V	GND	GND	GND	+12V	+12V
SNP-Z083-1	NC	+5V	+5V	GND	GND	GND	+12V	+12V
SNP-Z08F	+12V	+5V	+5V	GND	GND	GND	+24V	+24V
SNP-Z08F-1	+12V	+5V	+5V	GND	GND	GND	+24V	+24V
SNP-Z086	GND	GND	GND	GND	+5V	+5V	+5V	+5V
SNP-Z087	+5V	GND	GND	GND	+12V	+12V		
SNP-Z087-1	NC	GND	GND	GND	+12V	+12V		
SNP-Z088	+5V	GND	GND	GND	+15V	+15V		
SNP-Z088-1	NC	GND	GND	GND	+15V	+15V		
SNP-Z089	+5V	GND	GND	GND	+24V	+24V		
SNP-Z089-1	NC	GND	GND	GND	+24V	+24V		
SNP-Z08T	NC	GND	GND	GND	+48V	+48V		
SNP-Z08B	GND	GND	GND	GND	+3.3V	+3.3V	+3.3V	+3.3V

-Jim-

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Rated 85W Peak 135W **SNP-Z08 Series**

Output Specifications:

MODEL	OUTPUT	LOAD				VOLTAGE	RIPPLE	LINE	LOAD	EFFICIENCY
NO.	RAIL	MIN.	RATED	MAX.	PEAK	ACCURACY	NOISE	REG.	REG.	TYPICAL
SNP-Z081	+5V +12V -12V	0A 0A 0A	6A 4A 0.5A	8A 6A	15A 10A	+4.9V~+5.1V +11.4V~+12.6V -11.4V~-12.6V	1% 1% 1%	±1% ±1% ±1%	±3% ±3% ±5%	84%
SNP-Z081-1	+5V +12V -12V	0A 0A 0A	5A 3.5A 0.5A		15A 10A	+4.9V~+5.1V +11.4V~+12.6V -11.4V~-12.6V	1% 1% 1%	±1% ±1% ±1%	±3% ±3% ±5%	82%
SNP-Z08D	+3.3V +5V +12V	0A 0A 0A	6A 4A 1.5A	10A 7A		+3.2V~+3.4V +4.75V~+5.25V +11.4V~+12.6V	50mV 1% 1%	±1% ±1% ±1%	±3% ±3% ±5%	79%
SNP-Z083	+5V +12V	0A 0A	6A 4A	8A 6A	15A 10A	+4.9V~+5.1V +11.4V~+12.6V	1% 1%	±1% ±1%	±3% ±3%	84%
SNP-Z083-1	+5V +12V	0A 0A	5A 3.5A		15A 10A	+4.9V~+5.1V +11.4V~+12.6V	1% 1%	±1% ±1%	±3% ±3%	82%
SNP-Z08F	+5V +24V +12V	0A 0A 0A	6A 2A 0.5A	8A 3A	15A 5A	+4.9V~+5.1V +22.8V~+25.2V +11.4V~+12.6V	1% 1% 1%	±1% ±1% ±1%	±3% ±3% ±5%	85%
SNP-Z08F-1	+5V +24V +12V	0A 0A 0A	5A 2A 0.5A		15A 5A	+4.9V~+5.1V +22.8V~+25.2V +11.4V~+12.6V	1% 1% 1%	±1% ±1% ±1%	±3% ±3% ±5%	83%
SNP-Z086	+5V	0A	15A			+4.95V~+5.05V	1%	±1%	±1%	81%
SNP-Z087	+12V +5V	0A 0A	6.5A 0.5A		11A	+11.88V~+12.12V +4.75V~+5.25V	1% 1%	±1% ±1%	±1% ±1%	82%
SNP-Z087-1	+12V	0A	7A		11A	+11.88V~+12.12V	1%	±1%	±1%	83%
SNP-Z088	+15V +5V	0A 0A	5.5A 0.5A		9A	+14.85V~+15.15V +4.75V~+5.25V	1% 1%	±1% ±1%	±1% ±1%	82%
SNP-Z088-1	+15V	0A	5.7A		9A	+14.85V~+15.15V	1%	±1%	±1%	83%
SNP-Z089	+24V +5V	0A 0A	3.6A 0.5A		5.6A	+23.75V~+24.24V +4.75V~+5.25V	1% 1%	±1% ±1%	±1% ±1%	85%
SNP-Z089-1	+24V	0A	3.75A		5.6A	+23.75V~+24.24V	1%	±1%	±1%	86%
SNP-Z08T	+48V	0A	1.88A		2.8A	+47.6V~+48.4V	1%	±1%	±1%	87%
SNP-Z08B	+3.3V	0A	15A	13A		+3.26V~+3.33V	50mV	±1%	±1%	80%

Note:

- At peak load, the output can last for 8 seconds without shut down.
- The maximum combinational load of SNP-Z08D for +3.3V & +5V is 40W.
- At factory, all outputs in 60% rated load condition, each output is checked to be within the accuracy range while the main output is setting to within the specified accuracy range at rated load.

 Line regulation is defined by changing ±10% of input voltage from nominal line at rated load.

- Load regulation is defined by changing ±40% of measured output load from 60% rated load at another output set to 60% rated load.

 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.

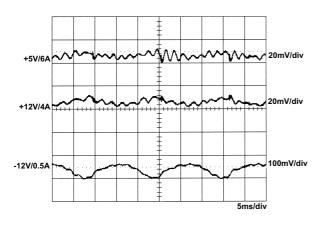
 Hold up time is measured from the end of the last charging pulse to the time which the main output drop down to regulation limit at rated load and nominal line.
- The efficiency is measured at nominal line and rated load.

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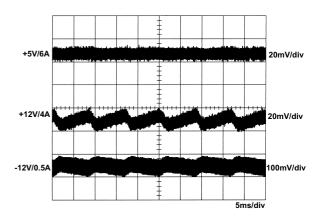
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Performance for SNP-Z081:

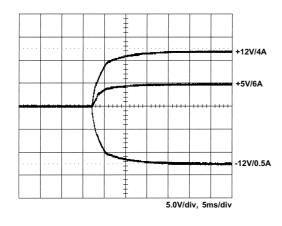
1. Switching frequency ripple



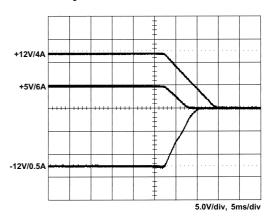
2. Line frequency ripple



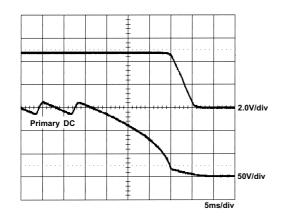
3. Output turn on wave form



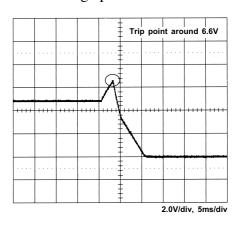
4. Output turn off wave form



5. Hold-up time



6. Over voltage protection

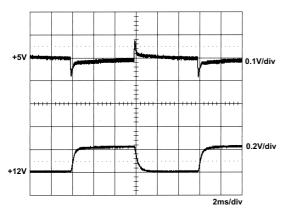


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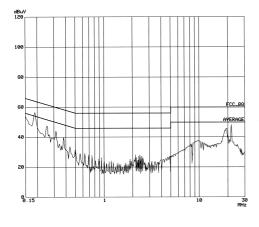
Rated 85W Peak 135W SNP-Z08 Series

7. +5V step response

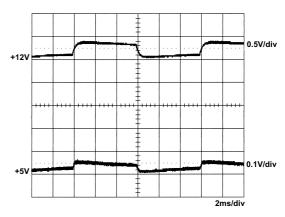


+5V step from 1.2A to 6A others are at 60% rated load

9. FCC B



8. +12V step response



+12V step from 0.8A to 4A others are at 60% rated load

10. EN 55022 B

