

### General Specifications:

Input voltage ..... 90VAC to 264VAC  
 Input frequency..... 47Hz to 63Hz  
 Inrush current ..... < 40A at 115VAC  
 (cold start at 25°C) or < 70A at 230VAC  
 Efficiency ..... 77%~87% depends on models  
 at rated load and 115VAC  
 Hold up time ..... 15ms typical  
 at rated load and 115VAC, or 230VAC  
 Over load protection ..... auto recovery  
 Short circuit protection ..... auto recovery

### Features:

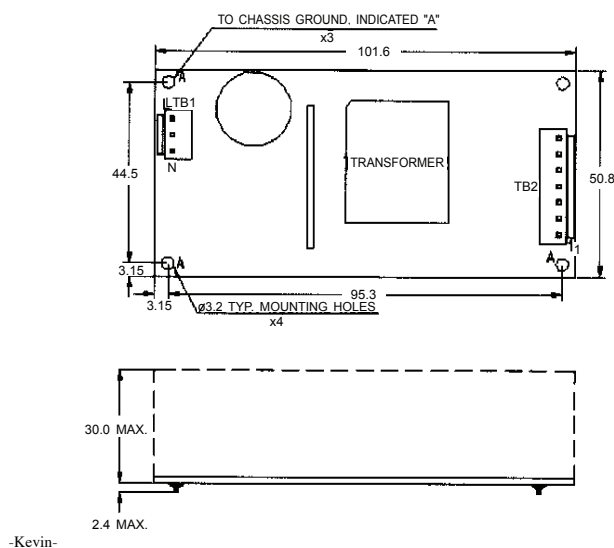
- Only 1.18 inch height
- With ITE & Medical safety
- Efficiency between 77% to 87%
- Operation from 0°C to 70°C by convection

### Applications:

- For dental, laboratory products, pumps, monitors, sleep apnea devices and many other uses.

Over voltage protection ..... latch off  
 Operating temperature ..... 0°C to 70°C convection  
 derating: 2.5% / °C > 50°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 60601-1  
 CSA C22.2 No. 60950-1, No. 60601.1  
 EN 60950-1, EN 60601-1

### Mechanical Specifications:



### Notes:

1. Dimensions shown in mm as left. Tolerance: ±0.4mm.
2. Size:  
50.8 x 101.6 x 30 (mm)  
2" x 4" x 1.18"
3. Packing:  
Net weight: 140 g approx. / unit  
Gross weight: 13.5 kg approx. / carton, 80 units / carton  
Carton size (mm): 382 (L) x 374 (W) x 277 (H)
4. Connectors:  
AC input : JST B6P3-VH or equivalent  
DC output : JST B6P-VH or equivalent for single output  
JST B7P-VH or equivalent for multiple outputs
5. Output Pin assignment:

PIN NO.	1	2	3	4	5	6	7
SNP-Z061	-12V	+5V	+5V	GND	GND	+12V	+12V
SNP-Z06D	+12V	+5V	+5V	GND	GND	+3.3V	+3.3V
SNP-Z063	NC	+5V	+5V	GND	GND	+12V	+12V
SNP-Z06A	NC	+5V	+5V	GND	GND	+24V	+24V
SNP-Z066-1	GND	GND	GND	+5V	+5V	+5V	
SNP-Z067	+5V	GND	GND	GND	+12V	+12V	
SNP-Z067-1	NC	GND	GND	GND	+12V	+12V	
SNP-Z068	+5V	GND	GND	GND	+15V	+15V	
SNP-Z068-1	NC	GND	GND	GND	+15V	+15V	
SNP-Z069	+5V	GND	GND	GND	+24V	+24V	
SNP-Z069-1	NC	GND	GND	GND	+24V	+24V	
SNP-Z06T	NC	GND	GND	GND	+48V	+48V	

10 years Warranty (contact Skynet's Distributors for details)

## Output Specifications:

MODEL NO.	OUTPUT RAIL	LOAD				VOLTAGE ACCURACY	RIPPLE NOISE	LINE REG.	LOAD REG.	EFFICIENCY TYPICAL
		MIN.	RATED	MAX.	PEAK					
SNP-Z061	+5V +12V -12V	0A 0A 0A	3A 3A 0.3A		5A 5A	+4.95V~+5.05V +11.4V~+12.6V -11.4V~-12.6V	1% 1% 1%	±1% ±1% ±1%	±3% ±3% ±5%	82%
SNP-Z06D	+3.3V +5V +12V	0A 0A 0A	4.5A 3A 0.7A		6A 5A	+3.2V~+3.4V +4.75V~+5.25V +11.4V~+12.6V	50mV 1% 1%	±1% ±1% ±1%	±3% ±3% ±5%	80%
SNP-Z063	+5V +12V	0A 0A	3A 3A		6A 5A	+4.95V~+5.05V +11.4V~+12.6V	1% 1%	±1% ±1%	±3% ±3%	82%
SNP-Z06A	+5V +24V	0A 0A	4A 1.5A		6A 3A	+4.95V~+5.05V +22.8V~+25.2V	1% 1%	±1% ±1%	±3% ±3%	83%
SNP-Z066-1	+5V	0A	12A		18A	+4.95V~+5.05V	1%	±0.5%	±0.5%	85%
SNP-Z067	+12V +5V	0.1A 0A	4.8A 0.5A		7.5A	+11.88V~+12.12V +4.75V~+5.25V	0.5% 1%	±1% ±1%	±1% ±1%	82%
SNP-Z067-1	+12V	0.1A	5A		7.5A	+11.88V~+12.12V	0.5%	±1%	±1%	85%
SNP-Z068	+15V +5V	0A 0A	3.8A 0.5A		6A	+14.85V~+15.15V +4.75V~+5.25V	0.5% 1%	±1% ±1%	±1% ±1%	84%
SNP-Z068-1	+15V	0.1A	4.3A		6A	+14.85V~+15.15V	0.5%	±1%	±1%	85%
SNP-Z069	+24V +5V	0.1A 0A	2.4A 0.5A		3.7A	+23.75V~+24.24V +4.75V~+5.25V	0.5% 1%	±1% ±1%	±1% ±1%	85%
SNP-Z069-1	+24V	0.1A	2.7A		3.7A	+23.75V~+24.24V	0.5%	±1%	±1%	85%
SNP-Z06T	+48V	0A	1.35A		1.9A	+47.6V~+48.4V	0.5%	±0.5%	±0.5%	87%

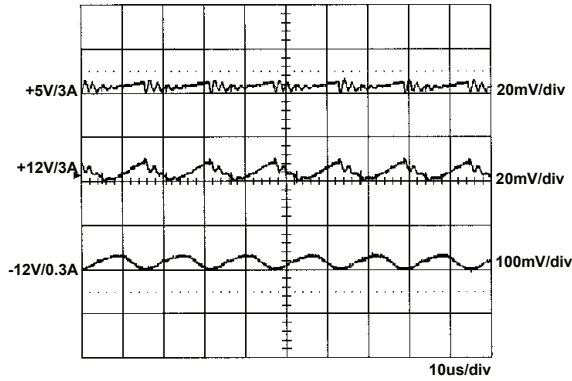
### Note:

1. At peak load, the output can last for 8 seconds without shut down.
2. The maximum combinational load of SNP-Z06D for +3.3V & +5V is 30W.
3. 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.
4. Line regulation is defined by changing ±10% of input voltage from nominal line at rated load.
5. Load regulation is defined by changing ±40% of measured output load from 60% rated load at another output set to 60% rated load.
6. 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.
7. 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.
8. The efficiency is measured at nominal line and rated load.

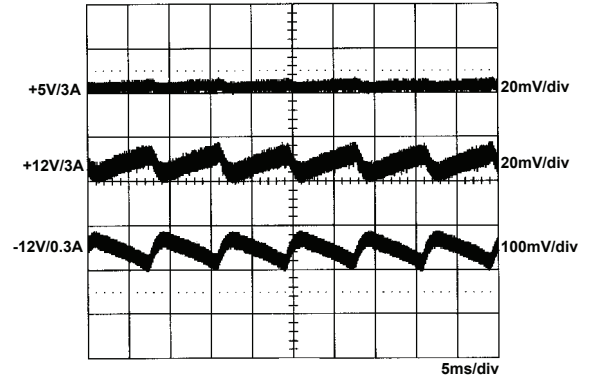
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## Performance for SNP-Z061:

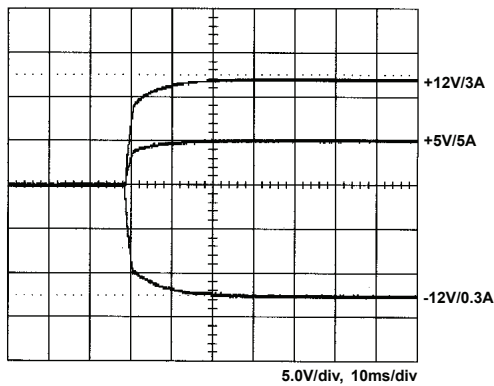
### 1. Switching frequency ripple



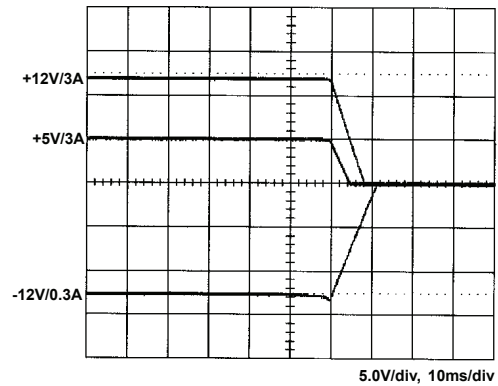
### 2. Line frequency ripple



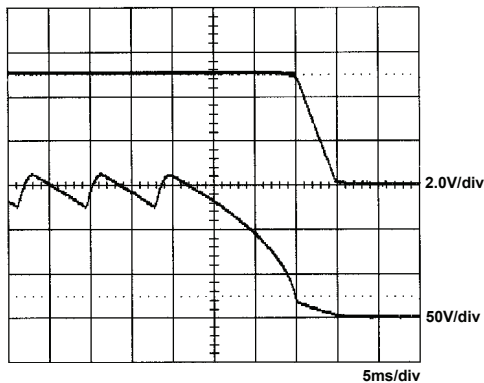
### 3. Output turn on wave form



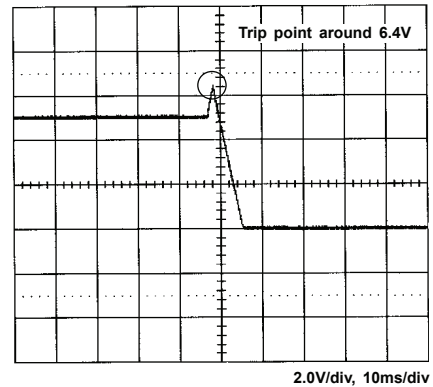
### 4. Output turn off wave form



### 5. Hold-up time

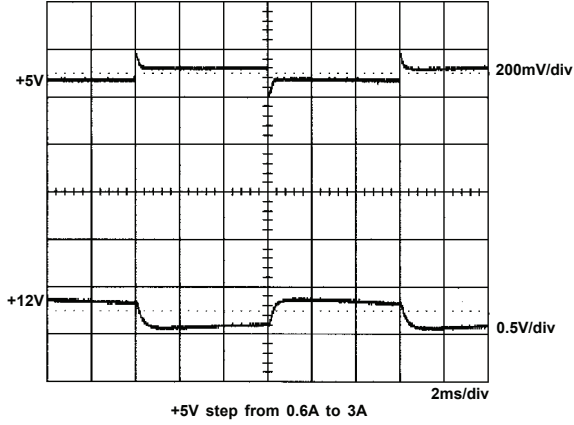


### 6. Over voltage protection

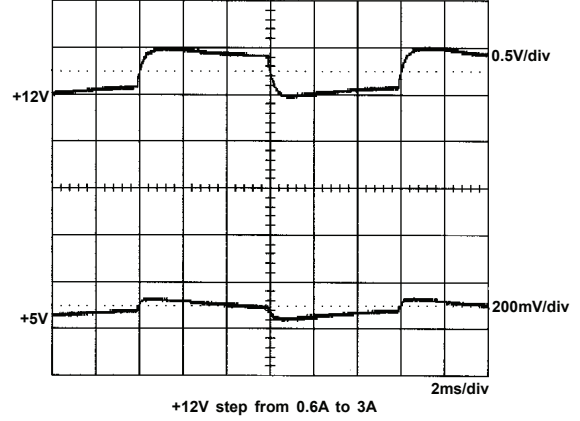


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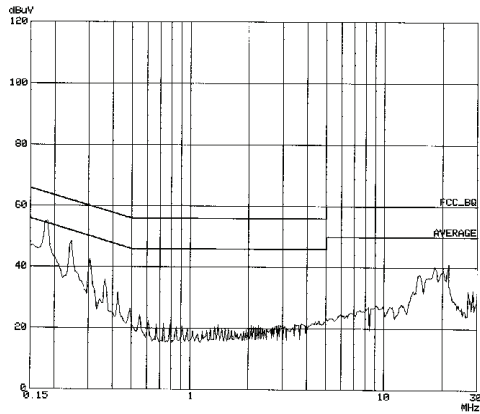
7. +5V step response



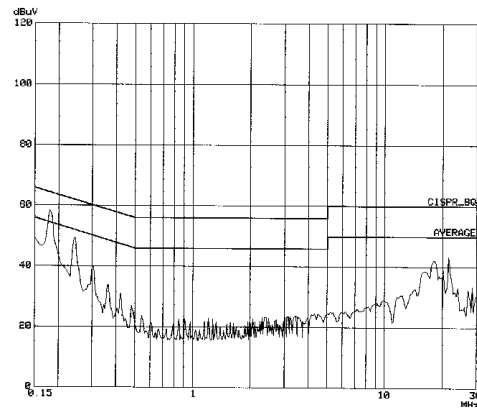
8. +12V step response



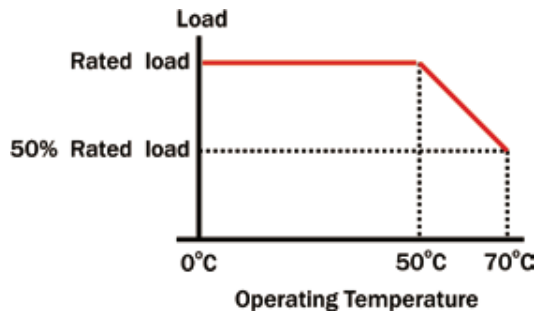
9. FCC B



10. EN 55022 B



11. Power derating curve



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