



THE RELIABLE SOURCE

# ITE & Medical Applications (Universal)

Rated 75W  
Peak 120W  
SNP-Z07 Series



### Features:

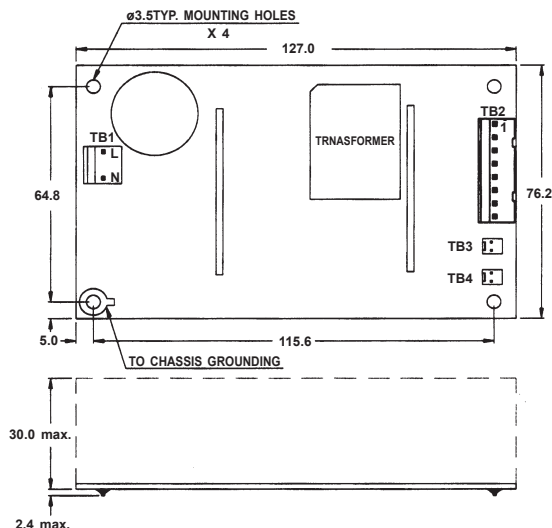
- Only 1.18 inch height
- 3.9 Watt per cubic inch
- With ITE & Medical safety
- Efficiency between 75% to 86%
- Operation from 0°C to 70°C by convection

### 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 ..... 75%~87% depends on models  
                                     at rated load and 115VAC  
 Hold up time ..... longer than 20mS  
                                     at rated load and 115VAC  
 Earth leakage current ..... < 300uA  
 Over load protection ..... auto recovery  
 Short circuit protection ..... auto recovery

Over voltage protection ..... latch off  
 Remote sense ..... compensate for 0.5V load drop min.  
 Operating temperature (open frame type) ..... 0 to 70°C  
                                     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  
 Harmonics ..... EN61000-3-2 class "A"  
 Safety ..... UL 60950-1, UL 60601-1  
                                     CSA C22.2 No. 60950-1, 601.1  
                                     EN 60950-1, EN 60601-1

### Mechanical Specifications:



### Notes:

- Dimensions shown in mm as left. Tolerance: +-1mm (Excluding cables).
- Size:  
76.2 X 127 X 30 (mm)  
3" X 5" X 1.18"
- Mounting holes:  
64.8 X 115.6 (mm)  
2.551" X 4.551"
- Packing  
Net weight: 220 g approx. / unit  
Gross weight: 13 kg approx. / carton, 48 units / carton  
Carton size (mm): 397 (L) x 339 (W) x 327 (H)
- Connectors  
a) TB1-AC input : Molex 5277-02A or equivalent for all models  
b) TB2-DC output : Molex 5273-08A or equivalent for all models  
c) TB3-for LED : Molex 5045-02A or equivalent for SNP-Z071,  
TB4-for FAN : -Z073, -Z077, -Z078, -Z079, -Z07E  
d) TB3-for LED : Molex 5045-02A or equivalent for SNP-Z076,  
TB4-for Remote sense : -Z07B  
e) TB3-for LED : Molex 5045-02A or equivalent for SP-Z07T
- Output Pin assignment

PIN NO.	1	2	3	4	5	6	7	8
SNP-Z071	+5V	+5V	GND	GND	+12V	+12V	-12V	NC
SNP-Z073	+5V	+5V	GND	GND	GND	GND	+12V	+12V
SNP-Z076	+5V	+5V	+5V	+5V	GND	GND	GND	GND
SNP-Z077	+12V	+12V	+12V	GND	GND	GND	GND	+5V
SNP-Z078	+15V	+15V	+15V	GND	GND	GND	GND	+5V
SNP-Z079	+24V	+24V	+24V	GND	GND	GND	GND	+5V
SNP-Z07T	+48V	+48V	+48V	GND	GND	GND	GND	NC
SNP-Z07E	+3.3V	+3.3V	GND	GND	+5V	+5V	-12V	+12V

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## Output Specifications:

MODEL NO.	OUTPUT RAIL	LOAD			VOLTAGE ACCURACY	RIPPLE NOISE	LINE REG.	LOAD REG.	EFFICIENCY TYPICAL
		MIN.	RATED	PEAK					
SNP-Z071	+5V	0A	3.5A	5A	+4.95V~+5.05V	1%	±1%	±3%	78%
	+12V	0A	3.5A	9A	+11.4V~+12.6V	1%	±1%	±3%	
	-12V	0A	0.3A		-11.4V~-12.6V	1%	±1%	±5%	
SNP-Z073	+5V	0A	3.5A	5A	+4.95V~+5.05V	1%	±1%	±3%	78%
	+12V	0A	4A	9A	+11.4V~+12.6V	1%	±1%	±3%	
SNP-Z076	+5V	0A	14A		+4.95V~+5.05V	1%	±1%	±1%	79%
SNP-Z077	+12V	0A	5.6A	9A	+11.88V~+12.12V	1%	±1%	±1%	81%
	+5V	0A	0.5A		+4.75V~+5.25V	1%	±1%	±1%	
SNP-Z078	+15V	0A	4.8A	8A	+14.85V~+15.15V	1%	±1%	±1%	82%
	+5V	0A	0.5A		+4.75V~+5.25V	1%	±1%	±1%	
SNP-Z079	+24V	0A	3A	5A	+23.76V~+24.24V	1%	±1%	±1%	84%
	+5V	0A	0.5A		+4.75V~+5.25V	1%	±1%	±1%	
SNP-Z07T	+48V	0A	1.6A		+47.6V~+48.4V	1%	±1%	±1%	86%
SNP-Z07E	+3.3V	0A	6A	10A	+3.26V~+3.33V	50mV	±1%	±3%	78%
	+5V	0A	4A	7A	+4.75V~+5.25V	1%	±1%	±3%	
	+12V	0A	2A		+11.4V~+12.6V	1%	±1%	±5%	
	-12V	0A	0.6A		-11.4V~-12.6V	1%	±1%	±5%	

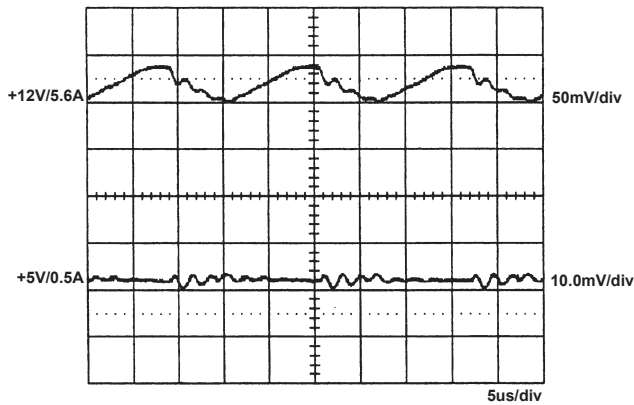
### Note:

- For SNP-Z07E, +3.3V and +5V can provide up to peak load continuously but the maximum combination load should be less than 45W. In other models, peak load can be provided temporarily and continuous staying in more than rated load is not allowed.
- 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. For SNP-Z076, one extra 39uF electrolytic capacitor should be added.
- 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.
- Rated load is maximum loading for flat mounting and free air convection cooling.
- +5V output can be optional for SNP-Z077, -Z078, -Z079.
- 12V output can be optional for SNP-Z07E.

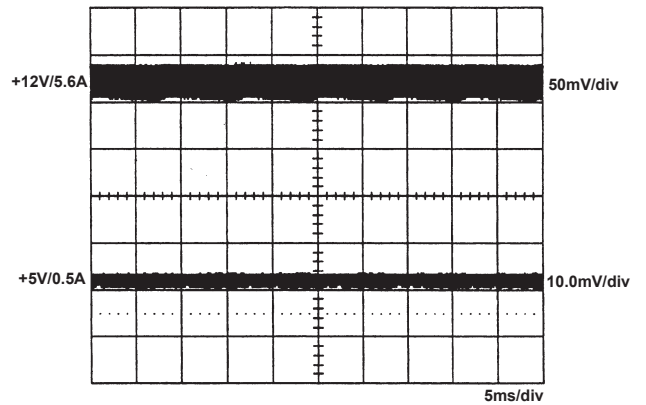
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**Performance for SNP-Z077 (input voltage is 115VAC, unless others specified):**

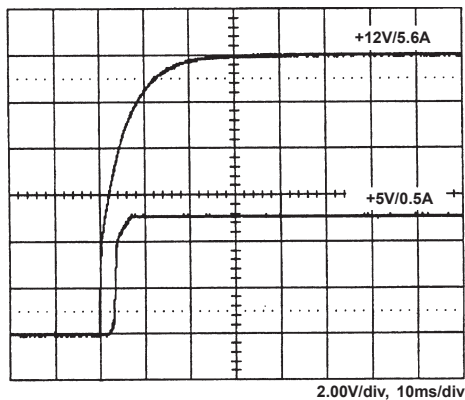
1. Switching frequency ripple



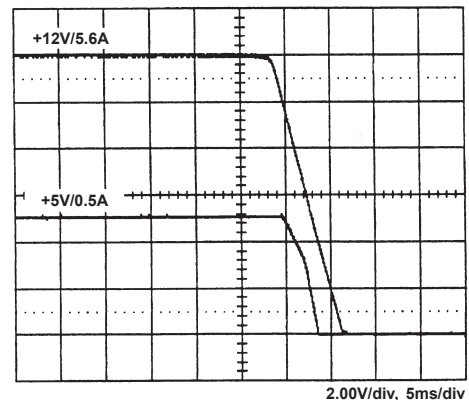
2. Line frequency ripple



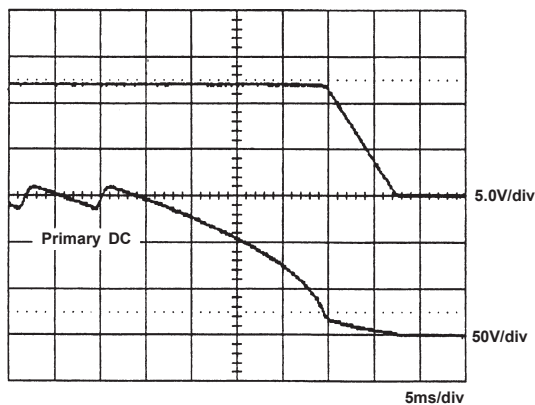
3. Output turn on wave form



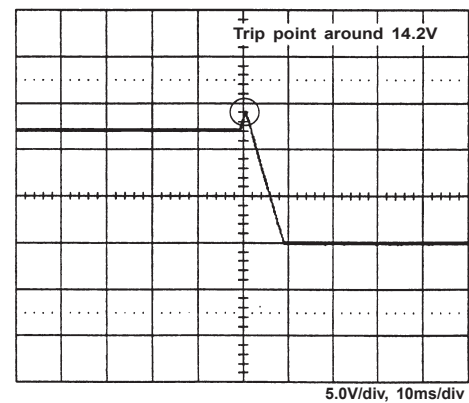
4. Output turn off wave form



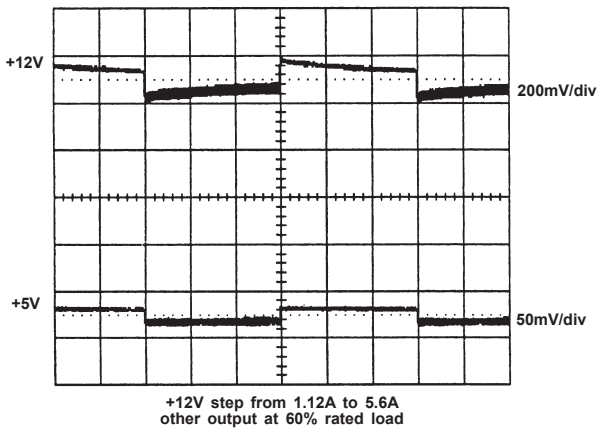
5. Hold-up time



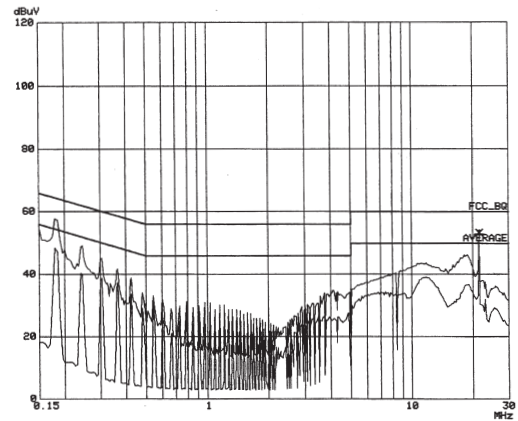
6. Over voltage protection



7. +12V step response



8. FCC B



9. CISPR 22 B

