



# I.T. & Medical (Universal)

Rated 75 W  
Peak 120 W  
**SNP Z07 series**



3" x 5" x 1U



## Description :

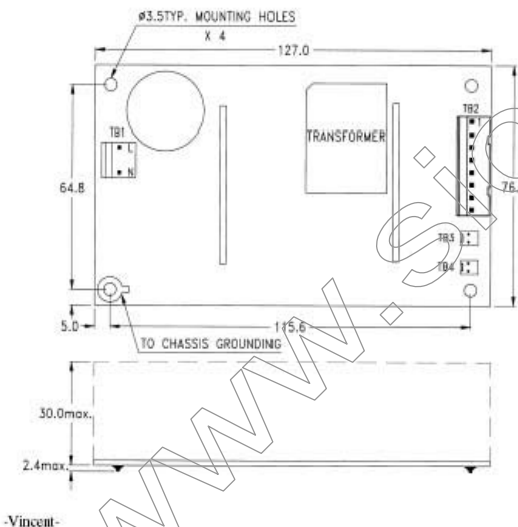
SNP-Z07 is a state-of-art from the ZVS series. It offers the advantages with 10W more and 10% increased efficiency compared with hard switching topology. Provide 75W rated, 120W peak for 8 sec. in 1U height 3" by 5"size. The safety conformity of SNP-Z07 series covers IT and medical application. SNP-Z07 series is built with long-life components. For commodity application, ECO-Z07 series is available for low cost.

## General specifications :

Input voltage.....90VAC to 264VAC  
 Input frequency.....47 Hz to 63 Hz  
 Inrush current.....less than 30A at 115VAC  
 ( Cold start ) less than 60A at 230VAC  
 Outputs.....see output table  
 Efficiency.....78%~87% depends on models  
 at rated load and 115VAC  
 Hold up time.....14ms typical  
 at rated load and 115VAC  
 Over load protection.....auto recovery  
 Short circuit protection.....auto recovery  
 Leakage current.....<300uA

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 conduction standard.....FCC "B"  
 EN55022"B"  
 EMS.....EN61000-4-2,-4,-5,-6,-11  
 Harmonics.....EN61000-3-2 class "A"  
 Safety.....UL 60950,2601  
 CSA 22.2 No.234, 601.1, EN60950, 60601-1

## Mechanical specifications :



### Notes:

- Dimensions shown in mm (inch) as left. Tolerance: +/-1mm.
- Size: 76.2 x 127 x 32.4 (mm) 3" x 5" x 1.28"
- Mounting holes: 64.8 x 115.6 (mm) 2.551" x 4.551"
- Connectors:

- TB1 - AC input : Molex 5277-2 or equivalent for all models
- TB2 - DC output : Molex 5273-8 or equivalent for all models
- TB3 - for LED : Molex 5045-2 or equivalent for SNP-Z071  
TB4 - for FAN : -Z073, -Z077, -Z078, -Z079, -Z07E
- TB3 - for LED : Molex 5045-2 or equivalent for SNP-Z076,  
TB4 - for Remote sense Z07B
- TB3 - for LED : Molex 5045-2 or equivalent

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	+5V
SNP-Z07B	+3.3V	+3.3V	+3.3V	+3.3V	GND	GND	GND	GND
SNP-Z07E	+3.3V	+3.3V	GND	GND	+5V	+5V	-12V	+12V



Output Specifications:

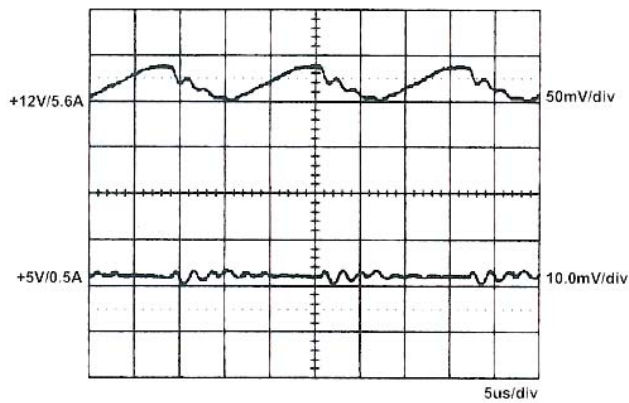
MODEL NO.	OUTPUT RAIL	LOAD			VOLTAGE ACCURACY	RIPPLE NOISE	LINE REG.	LOAD REG.
		MIN.	RATED	PEAK				
SNP-Z071	+5V	0A	3.5A	5A	+4.95V~+5.05V	1%	±1%	±3%
	+12V	0A	3.5A	9A	+11.4V~+12.6V	1%	±1%	±3%
	-12V	0A	0.3A		-11.4V~-12.6V	1%	±1%	±5%
SNP-Z073	+5V	0A	3.5A	5A	+4.95V~+5.05V	1%	±1%	±3%
	+12V	0A	4A	9A	+11.4V~+12.6V	1%	±1%	±3%
SNP-Z076	+5V	0A	14A		+4.95V~+5.05V	1%	±1%	±1%
SNP-Z077	+12V	0A	5.6A	9A	+11.88V~+12.12V	1%	±1%	±1%
	+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%
	+5V	0A	0.5A		+4.75V~+5.25V	1%	±1%	±1%
SNP-Z079	+24V	0A	3A	5A	+23.76V~+24.24V	1%	±1%	±1%
	+5V	0A	0.5A		+4.75V~+5.25V	1%	±1%	±5%
SNP-Z07T	+48V	0A	1.6A		+47.6V~+48.4V	1%	±1%	±1%
SNP-Z07B	+3.3V	0A	15A		+3.26V~+3.33V	50mV	±1%	±1%
SNP-Z07E	+3.3V	0A	6A	10A	+3.2V~+3.4V	50mV	±1%	±3%
	+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:

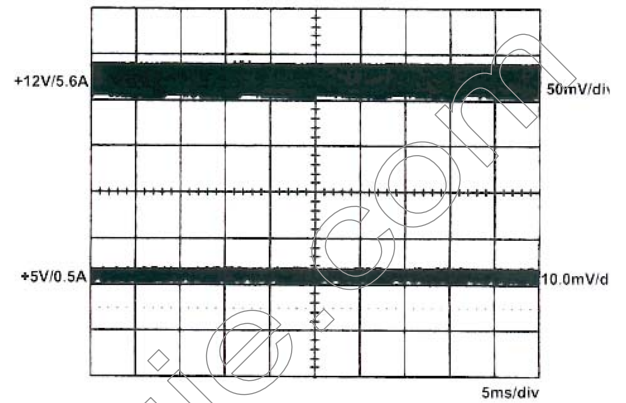
1. For SNP-Z07E, +3.3V and +5V can provide up to peak load continuously but the maximum combination load should be less than 45W. In other models, peak load can be provided temporarily and continuously staying in more than rated load is not allowed.
2. At factory, all outputs in 60% rated load condition, 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.
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 at rated load and nominal line. For SNP-Z07B and SNP-Z076, one extra 39uF electrolytic capacitor should be added.
6. 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.
7. Rated load is maximum loading for flat mounting and free air convection cooling.
8. +5V output can be optional for SNP-Z077, -Z078, -Z079.
9. -12V output can be optional for SNP-Z07E.

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

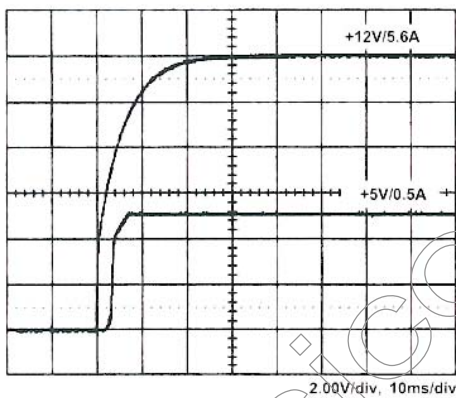
1. Switching frequency ripple



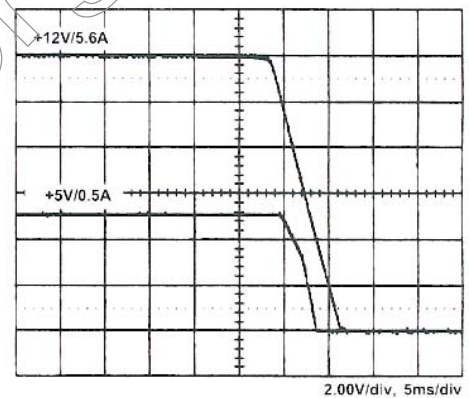
2. Line frequency ripple



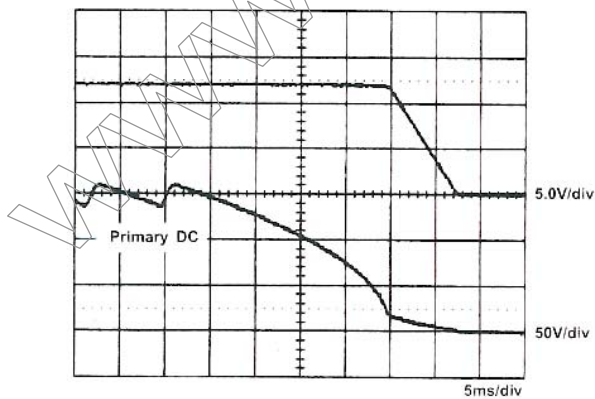
3. Output turn on wave form



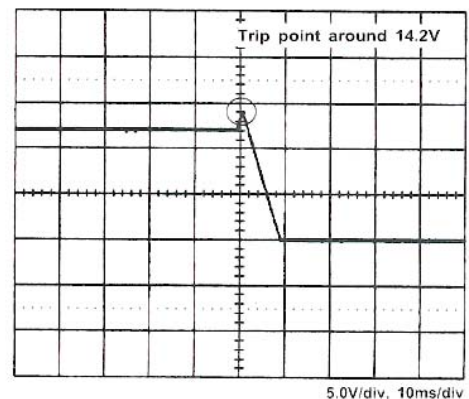
4. Output turn off wave form



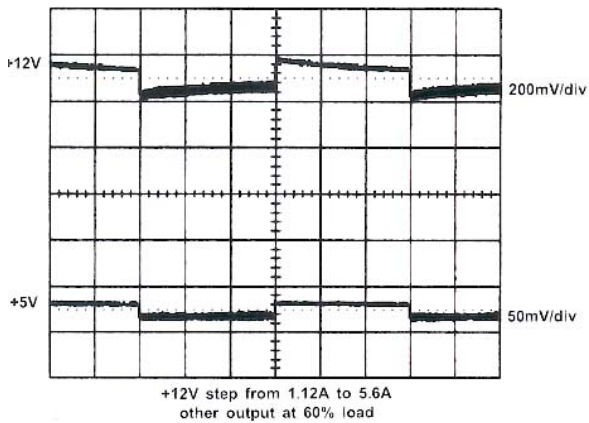
5. Hold-up time



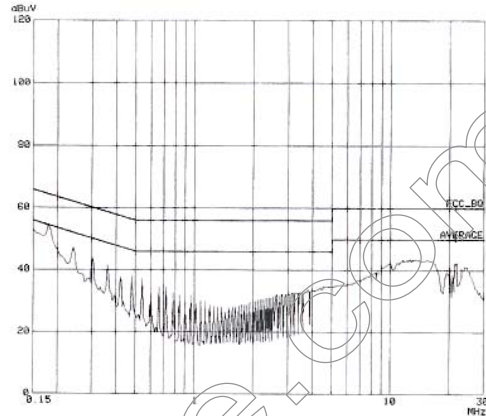
6. Over voltage protection



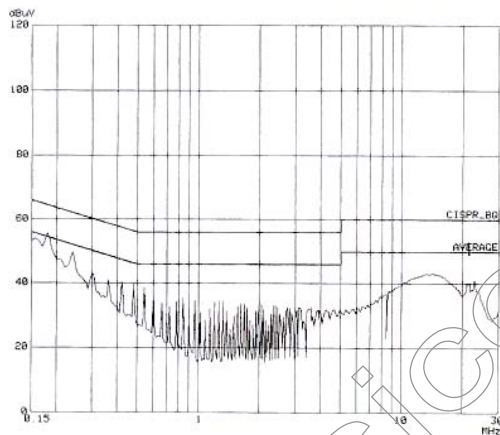
### 7. +12V step response



### 8. FCC B



### 9. EN55011 B



### Models available:

SNP-Z071 for 5V/3.5A, 12V/3.5A, -12V/0.3A

SNP-Z073 for 5V/3.5A, 12V/4A

SNP-Z076 for 5V/14A

SNP-Z077 for 12V/5.6A, 5V/0.5A

SNP-Z078 for 15V/4.8A, 5V/0.5A

SNP-Z079 for 24V/3A, 5V/0.5A

SNP-Z07T for 48V/1.6A

SNP-Z07B for 3.3V/15A

SNP-Z07E for 3.3V/6A, 5V/4A, 12V/2A, -12V/0.6A