

## Features:

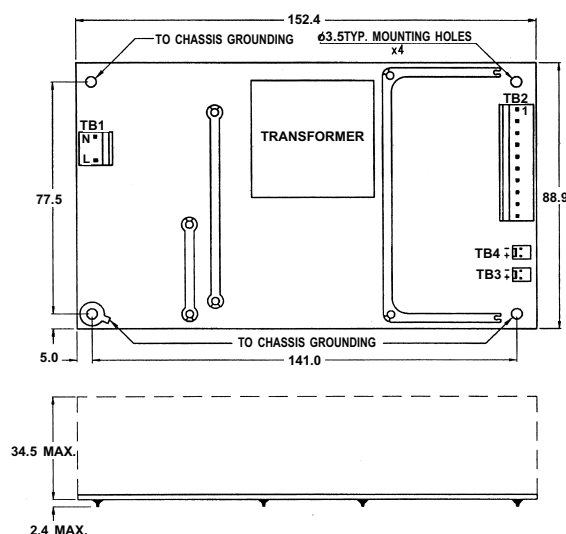
- Only 1.36 inch height
- 3.8 Watt per cubic inch
- With ITE & Medical safety
- Efficiency between 72% to 87%
- Operation from 0°C to 70°C by convection
- Single side PCB for low assembly cost

## 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 .....	78%~87% depends on models at rated load and 115VAC
Hold up time .....	20ms typical at rated load and 115VAC
Earth leakage current .....	< 300uA
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% / °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:

1. Dimensions shown in mm as left. Tolerance: + -1mm (Excluding cables).
2. Size:  
88.9 X 152.4 X 34.5 (mm)  
3.5" X 6" X 1.36"
3. Packing  
Net weight: 360 g approx. / unit  
Gross weight: 74 kg approx. / carton, 32 units / carton  
Carton size (mm): 477 (L) x 290 (W) x 379 (H)
4. Connectors  
a) TB1-AC input : Molex 5277-02A or equivalent  
b) TB2-DC output : Molex 5277-10A or equivalent for single to triple outputs  
Molex 5277-12A or equivalent for quad outputs  
c) TB3-LED : Molex 5045-02A or equivalent for all models  
d) TB4-FAN : Molex 5045-02A or equivalent for all models
5. Output Pin assignment

PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12
SNP-Y11I	+5V	+5V	+5V	GND	GND	GND	+12V	+12V	-12V	NC		
SNP-Y117	+12V	+12V	+12V	+12V	GND	GND	GND	GND	+5V	NC		
SNP-Y117-1	+12V	+12V	+12V	+12V	GND	GND	GND	GND	NC	NC		
SNP-Y118	+15V	+15V	+15V	+15V	GND	GND	GND	GND	+5V	NC		
SNP-Y118-1	+15V	+15V	+15V	+15V	GND	GND	GND	GND	+5V	NC		
SNP-Y119	+24V	+24V	+24V	+24V	GND	GND	GND	GND	+5V	NC		
SNP-Y119-1	+24V	+24V	+24V	+24V	GND	GND	GND	GND	NC	NC		
SNP-Y11T	+48V	+48V	+48V	+48V	GND	GND	GND	GND	NC	NC		
SNP-Y110	+5V	+5V	+5V	GND	GND	GND	+12V	+12V	-12V	GND	-5V	NC
SNP-Y11F	+5V	+5V	+5V	GND	GND	GND	+24V	+24V	+12V	GND	-12V	NC
SNP-Y11E	+3.3V	+3.3V	+3.3V	GND	GND	GND	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	MAX.	PEAK					
SNP-Y111	+5V	0A	7A	13A	20A	+4.95V~+5.05V	1%	±1%	±3%	82%
	+12V	0A	5A	7A	11A	+11.4V~+12.6V	1%	±1%	±3%	
	-12V	0A	0.5A			-11.4V~-12.6V	1%	±1%	±5%	
SNP-Y11E	+3.3V	0A	10A	12A		+3.2V~+3.4V	50mV	±1%	±3%	78%
	+5V	0A	8A	10A		+4.75V~+5.25V	1%	±1%	±3%	
	+12V	0A	2A			+11.4V~+12.6V	1%	±1%	±5%	
	-12V	0A	0.2A			-11.4V~-12.6V	1%	±1%	±5%	
SNP-Y117	+12V	0A	8.5A		13A	+11.88V~+12.12V	1%	±1%	±1%	83%
	+5V	0A	1A			+4.75V~+5.25V	1%	±1%	±1%	
SNP-Y117-1	+12V	0A	9A		13A	+11.88V~+12.12V	1%	±1%	±1%	84%
SNP-Y118	+15V	0A	7A		10.5A	+14.85V~+15.15V	1%	±1%	±1%	83%
	+5V	0A	1A		1A	+4.75V~+5.25V	1%	±1%	±1%	
SNP-Y118-1	+15V	0.1A	7A		10.5A	+14.85V~+15.15V	1%	±1%	±1%	84%
SNP-Y119	+24V	0A	4.5A		6.5A	+23.75V~+24.24V	1%	±1%	±1%	85%
	+5V	0A	1A		1A	+4.75V~+5.25V	1%	±1%	±1%	
SNP-Y119-1	+24V	0.1A	4.5A		6.5A	+23.75V~+24.24V	1%	±1%	±1%	86%
SNP-Y11T	+48V	0A	2.3A		3.5A	+47.6V~+48.4V	1%	±1%	±1%	87%
SNP-Y110	+5V	0A	6A	13A	20A	+4.95V~+5.1V	1%	±1%	±3%	82%
	+12V	0A	5A	7A	11A	+11.4V~+12.6V	1%	±1%	±3%	
	-12V	0A	0.5A			-11.4V~-12.6V	1%	±1%	±5%	
	-5V	0A	0.5A			-4.75V~-5.25V	1%	±1%	±3%	
SNP-Y11F	+5V	0A	6A	10A	15A	+4.9V~+5.1V	1%	±1%	±3%	82%
	+24V	0A	2A	3A	5.5A	+22.8V~+25.2V	1%	±1%	±3%	
	+12V	0A	2A			+11.4V~+12.6V	1%	±1%	±5%	
	-12V	0A	0.3A			-11.4V~-12.6V	1%	±1%	±5%	

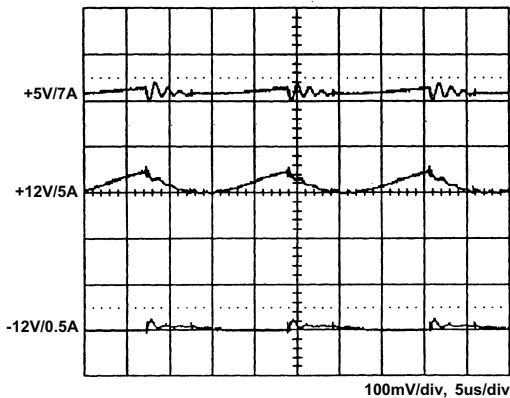
### Note:

1. At peak load, the output can last for 8 seconds without shut down.
2. The maximum combinational load of SNP-Y06D for +3.3V & +5V is 38W.
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.

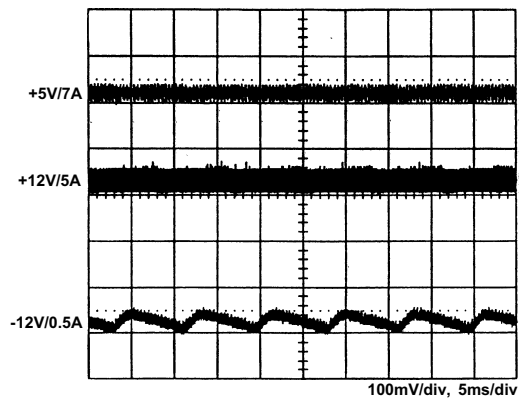
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Performance for SNP-Y111:

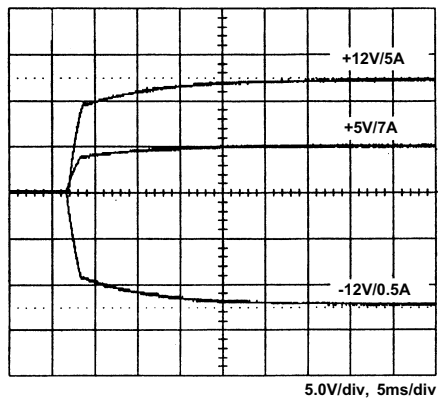
1. Switching frequency ripple



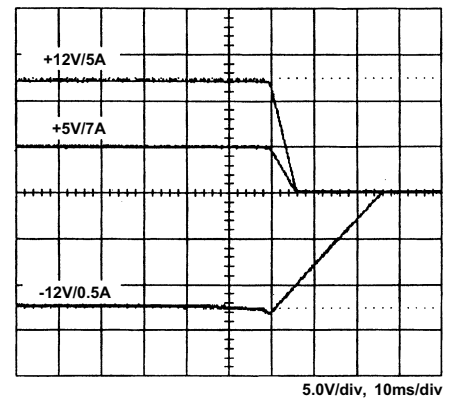
2. Line frequency ripple



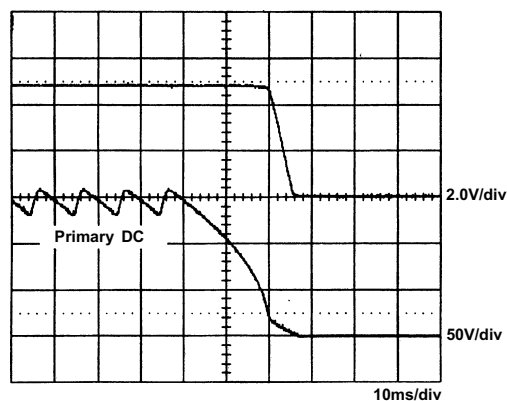
3. Output turn on wave form



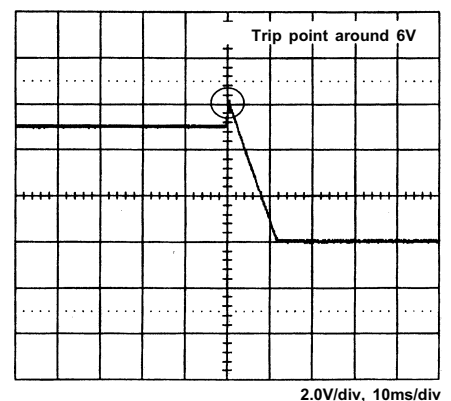
4. Output turn off wave form



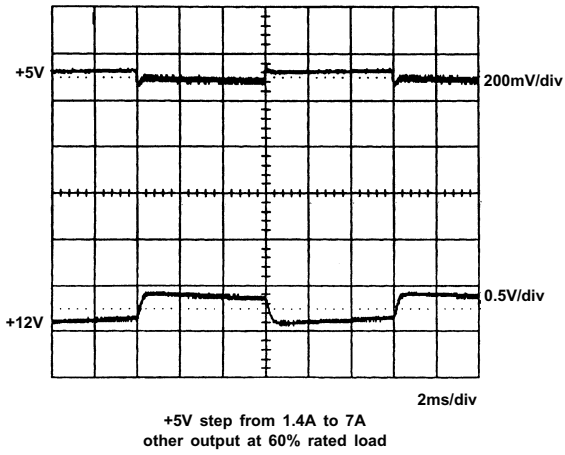
5. Hold-up time



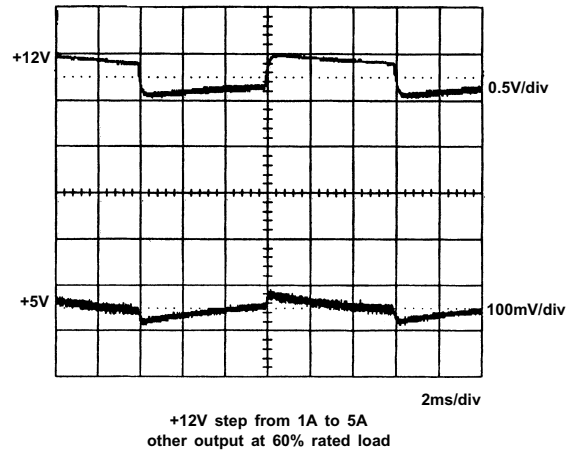
6. Over voltage protection



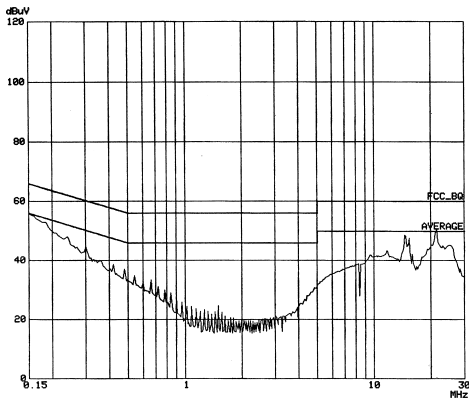
7. +5V step response



8. +12V step response



9. FCC B



10. EN 55011 B

