

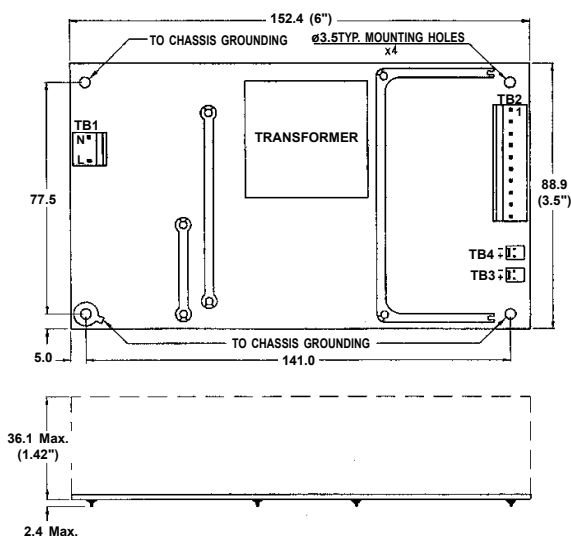


**3.5" x 6" x 1.42"**

## General Specifications:

Input voltage ..... 90VAC to 264VAC  
 Input frequency..... 47Hz to 63Hz  
 Inrush current ..... < 30A at 115VAC  
 (cold start at 25°C) or < 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

## Mechanical Specifications:



-Clark-

## Features:

- Only 1.36 inch height
- 3.8 Watt per cubic inch
- With ITE & Medical safety
- Efficiency between 78% to 87%
- Operation from 0°C to 70°C by convection
- Single side PCB for low assembly cost

## Applications:

- For medical dental, pumps, monitors, sleep apnea device, and many other uses.
- For ITE audio equipment, telecommunication, network, IPC, instrument equipment, and other uses.

Short circuit protection ..... auto recover  
 Over voltage protection ..... latch off  
 Operating temperature (open frame type) ..... 0°C 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

## Notes:

1. Size: 3.5" x 6" x 1.42"
2. Mounting Hole: 77.5 x 141 (mm)
3. 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

### 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	GND	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

5. 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)

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

## Output Specifications:

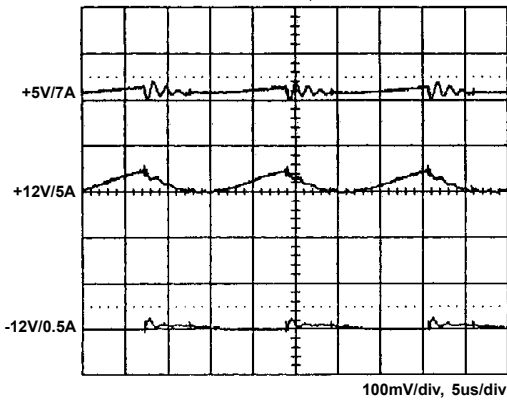
MODEL NO.	OUTPUT RAIL	LOAD				VOLTAGE ACCURACY	RIPPLE NOISE	LINE REG.	LOAD REG.	EFFICIENCY TYPICAL
		MIN.	RATED	MAX.	PEAK					
SNP-Y111	+5V	0A	7A	13A	20A	+4.95V~+5.05V	1%	±1%	±3%	82%
	+12V	0A	5A	7A	11A	+11.4V~+12.6V	1%	±1%	±3%	
	-12V	0A	0.5A			-11.4V~-12.6V	1%	±1%	±5%	
SNP-Y11E	+3.3V	0A	10A	12A		+3.2V~+3.4V	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-Y116	+5V	6A	19A			+4.95V~+5.05V	1%	±1%	±1%	80%
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:

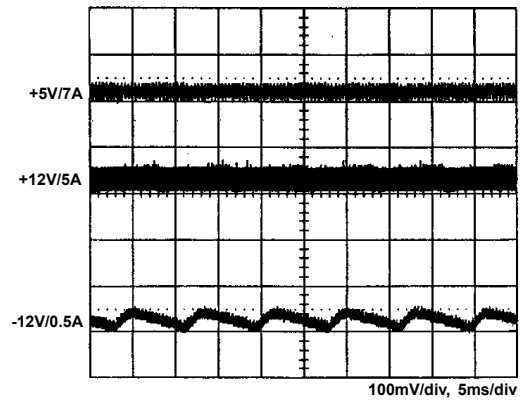
- At peak load, the output can last for 8 seconds without shut down.
- The maximum combinational load of SNP-Y06D for +3.3V & +5V is 38W.
- At factory, all outputs in 60% rated load condition, each output is checked to be within the accuracy range while the main output is setting to within the specified 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.
- Model Selection:  
SNP-Y09x is for both of ITE application and for medical application.

## Performance for SNP-Y111:

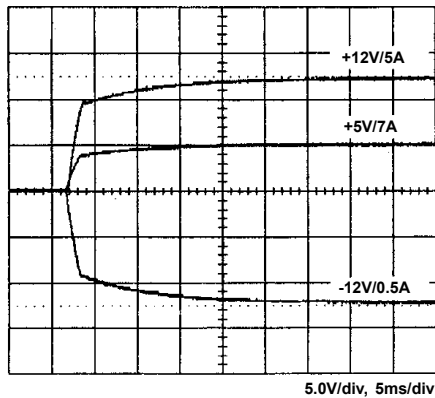
### 1. Switching frequency ripple



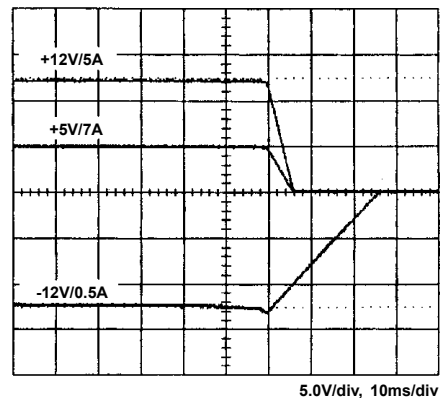
### 2. Line frequency ripple



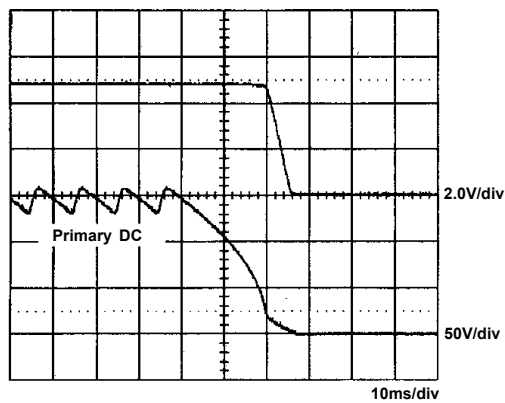
### 3. Output turn on wave form



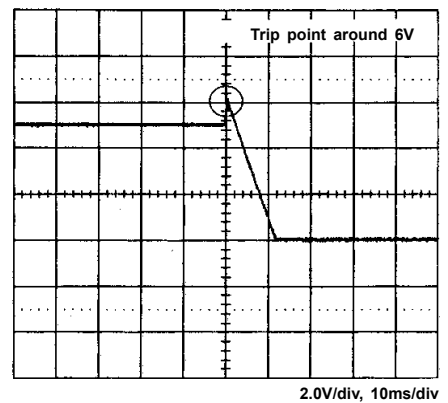
### 4. Output turn off wave form



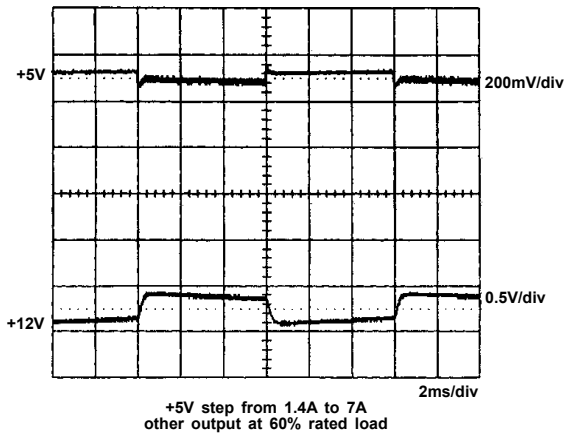
### 5. Hold-up time



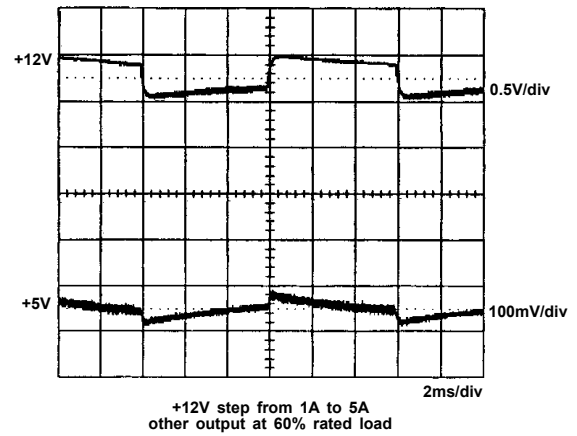
### 6. Over voltage protection



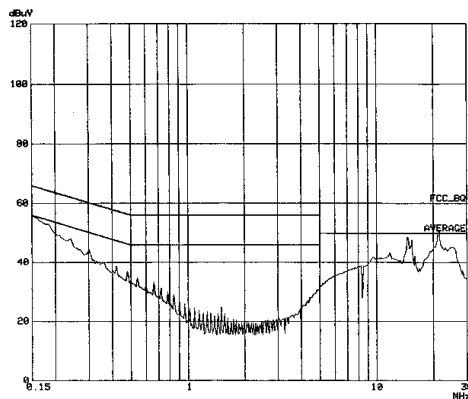
### 7. +5V step response



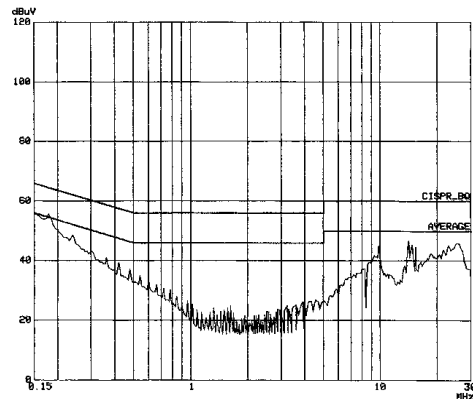
### 8. +12V step response



### 9. FCC B



### 10. EN 55011 B



### 11. Power derating curve

