SNP-Y07 Series 70 W AC/DC Switch Mode Power Supplies – Open Frame

- Only 1.18 inch height
- 3.9 Watt per cubic inch
- With ITE & Medical safety
- Operation from 0°C to 70°C by convection
- Efficiency between 75% to 87%
- Single side PCB for low assembly cost



Electrical specifications

Input	Voltage	90-264 VAC					
	Frequency	47-63 Hz					
	Inrush Current	< 60 A at 230 VAC, cold start, 25°C					
Output	Output Power	75 W, Peak 120 W					
	Voltage (VDC)	See table below					
	Current (A) max.	See table below					
	Efficiency	75% - 87%					
	Hold-up Time	>20 ms at rated load and 115VAC					
Protoction	Over Load Protection	Auto recovery					
Protection	Over Voltage Protection	Latch off					
	Short Circuit Protection	Auto recovery					
	Operating Temperature	0°C +70°C (derating: 2.5% / °C > 50°C)					
Environment	Storage Temperature	-40°C +85°C					
	Humidity	5% to 90% RH, non-condensing					
	Dimension (L x W x H)	76.2 x 127 x 30 mm					
	Weight	220 g					
	Cooling	Convection cooling					
Physical	Connections	 a) TB1-AC input : Molex 5277-2 or equivalent for all models b) TB2-DC output : Molex 5273-8 or equivalent for all models c) TB3-for LED : Molex 5045-2 or equivalent for SNP-Y071, TB4-for FAN -Y073, -Y077, -Y078, -Y079, -Y07E d) TB3-for LED : Molex 5045-2 or equivalent for SNP-Y076, TB4-for Remote sense -Y07B e) TB3-for LED : Molex 5045-2 or equivalent for SP-Y07T 					
Safety & EMC	EMI	FCC "B" EN55022"B", EN55011"B"					
	Harmonics	EN61000-3-2 class "A"					
	EMS	EN61000-4-2,-3,-4,-5,-6,-8,-11					
	Safety Approvals	UL 60950-1, UL 60601-1 CSA C22.2 No. 60950-1, 601.1 EN 60950-1, EN 60601-1					

Applications

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

Models

Model	Output	Load				Initial	Ripple	Line	Load	Efficiency	
Woder		Min	Rated	Max	Peak	accuracy^	Noise	Reg.	Reg.	Typical	
	+5 V	0 A	3.5 A		5.0 A	+4.95V~+5.05V	1%	±1%	±3%		
SNP-Y071	+ 12 V	0 A	3.5 A		9.0 A	+11.4V~+12.6V	1%	±1%	±3%	78%	
	- 12 V	0 A	0.3 A			-11.4V~-12.6V	1%	±1%	±5%		
SNP-Y073	+5 V	0 A	3.5 A		5.0 A	+4.95V~+5.05V	1%	±1%	±3%	78%	
	+ 12 V	0 A	4.0 A		9.0 A	+11.4V~+12.6V	1%	±1%	±3%		
SNP-Y076	+5 V	0 A	14.0 A			+4.95V~+5.05V	1%	±1%	±1%	79%	
SNP-Y077	+12 V	0 A	5.6 A		9.0 A	+11.88V~+12.12V	1%	±1%	±1%	81%	
	+ 5 V	0 A	0.5 A			+4.75V~+5.25V	1%	±1%	±1%		
SNP-Y078	+15 V	0 A	4.8 A		8.0 A	+14.85V~+15.15V	1%	±1%	±1%	82%	
	+ 5 V	0 A	0.5 A			+4.75V~+5.25V	1%	±1%	±1%		
SNP-Y079	+24 V	0 A	3.0 A		5.0 A	+23.76V~+24.24V	1%	±1%	±1%	84%	
	+ 5 V	0 A	0.5 A			+4.75V~+5.25V	1%	±1%	±1%	0470	
SNP-Y07T	+48 V	0 A	1.6 A			+47.6V~+48.4V	1%	±1%	±1%	87%	
SNP-Y07B	+3.3 V	0 A	15.0 A			+3.26V~+3.33V	50mV	±1%	±1%	75%	
	+3.3 V	0 A	6.0 A		10 A	+3.2V~+3.4V	50mV	±1%	±3%		
SNP-Y07E	+5.0 V	0 A	4.0 A		7 A	+4.75V~+5.25V	1%	±1%	±3%	700/	
	+12 V	0 A	2.0 A			+11.4V~+12.6V	1%	±1%	±5%	18%	
	-12 V	0 A	0.6 A			-11.4V~-12.6V	1%	±1%	±5%		

Notes

 For SNP-Y07E, +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.

3. Line regulation is defined by changing $\pm 10\%$ 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-Y07B and SNP-Y076, 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-Y077, -Y078, -Y079.

9. -12V output can be optional for SNP-Y07E

Dimensions



Output Pin assignment:

Pin No.	1	2	3	4	5	6	7	8
SNP-Y071	+5V	+5V	GND	GND	+12V	+12V	-12V	GND
SNP-Y073	+5V	+5V	GND	GND	GND	GND	+12V	+12V
SNP-Y076	+5V	+5V	+5V	+5V	GND	GND	GND	GND
SNP-Y077	+12V	+12V	+12V	GND	GND	GND	GND	+5V
SNP-Y078	+15V	+15V	+15V	GND	GND	GND	GND	+5V
SNP-Y079	+24V	+24V	+24V	GND	GND	GND	GND	+5V
SNP-Y07T	+48V	+48V	+48V	GND	GND	GND	GND	+5V
SNP-Y07B	+3.3V	+3.3V	+3.3V	+3.3V	GND	GND	GND	GND
SNP-Y07E	+3.3V	+3.3V	GND	GND	+5V	+5V	-12V	+12V