

PFC + 120W SNP-A12 Series SNP-A12X-M Series



Description:

It will be a big challenge to engineers if boost active PFC plus 120W output universal power adapter is going to be designed into a 95.0mm X 180.0mm X 50.0mm box. Increasing overall efficiency and the special care of heat dissipate make SNP-A12 series reaching this impossible mission. Furthermore, this series was designed with patented Ring-Free ZVS & Active PFC. SNP-A12X-M series is for medical application.

Model available:

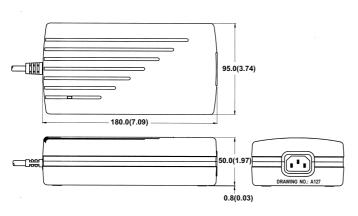
- SNP-A127 for 12V/9A
- SNP-A128 for 15V/7.5A
- SNP-A127-M for 12V/9ASNP-A128-M for 15V/7.5A
- CND 4105 6 101/654
- SNP-A125-M for 18V/6.5A
- SNP-A125 for 18V/6.5ASNP-A129 for 24V/5A
- SNP-A129-M for 24V/5A
- SNP-A12T for 48V/2.5A
- SNP-A12T-M for 48V/2.5A

General Specifications:

Input voltage	90 VAC to 264 VAC
Input frequency	47 Hz to 63 Hz
Inrush current	less than 60A at 230VAC
	cold start, 25°C
Efficiency	84%~87% depends on models
Holdup time	> 16 ms
	at rated load and 115VAC
Over voltage protection	latch off
Short circuit protection	auto recovery

Over load prote	ction auto recovery
Operating temp	erature 0°C to 40°C
Cooling	free air convection
Storage tempera	ature20°C to +85°C
EMI	FCC class "B"
	CISPR22 level "B"
Harmonics	EN61000-3-2 class D
EMS	EN61000-4-2, -3, -4, -5,-6,-11
Safety	UL 60950, (UL 60601-1)
	CSA C22.2 No. 60950, (CSA 601-1, CUL)
	TUV EN60950-1, (EN60601-1)

Mechanical Specifications:



Notes:

- Dimensions shown in mm (inch) as left. Tolerance: ±1mm (Excluding cables).
- 2. Size:

95.0 X 180.0 X 50.0 (mm)

4. Packing

Net weight: 920 g approx. / unit

Gross weight: $16\ kg$ approx. / carton, $14\ units$ / carton Carton size (mm): $531\ (L)\ x\ 316\ (W)\ x\ 337\ (H)$

4. Connectors:

AC input: IEC 320 Inlet

DC output: Molex 5557-06 or equivalent

5. Box Color: Black

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Output Specifications:

MODEL NO.	OUTPUT RAIL	MIN.	LOAD RATED	PEAK	VOLTAGE ACCURACY	RIPPLE NOISE	LINE REG.	LOAD REG.
SNP-A127(-M)	+12V	0A	9A	15A	+11.40V~+12.60V	100mVpp	±1%	±3%
SNP-A128(-M)	+15V	0A	7.5A	10A	+14.25V~+15.75V	100mVpp	±1%	±3%
SNP-A125(-M)	+18V	0A	6.5A	9A	+17.1V~+18.9V	100mVpp	±1%	±3%
SNP-A129(-M)	+24V	0A	5A	7A	+22.80V~+25.20V	100mVpp	±1%	±3%
SNP-A12T(-M)	+48V	0A	2.5A	4A	+45.60V~+50.40V	100mVpp	±1%	±3%

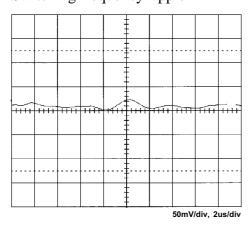
Note:

- 1. Output can provide up to peak load when the power supply starts up. Continuous staying in more than rated load is not allowed.
- 2. At factory, in 60% rated load condition, each output is checked to be within voltage accuracy.
- 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.
- 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.
- 6. Hold up time is measured from the end of the last charging pulse to the time which the main output drops down to low limit of main output at rated load and nominal line.
- 7. Efficiency is measured at rated load, and nominal line.

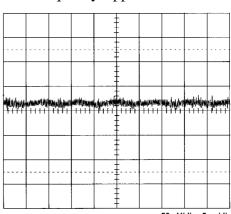
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Performance for SNP-A127:

1. Switching frequency ripple

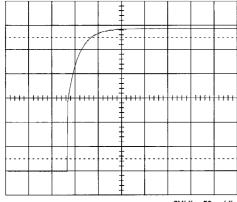


2. Line frequency ripple



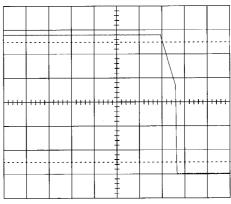
50mV/div, 5ms/div

3. Output turn on wave form



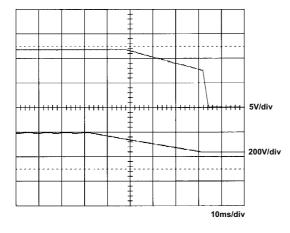
2V/div, 50ms/div

4. Output turn off wave form

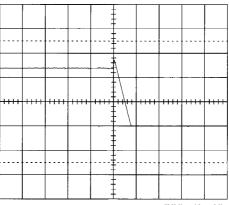


2V/div, 50ms/div

5. Hold-up time



6. Over voltage protection

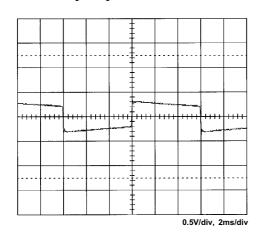


5V/div, 10ms/div

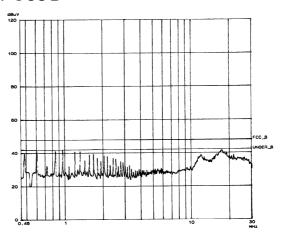


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7. +12V step response



8. FCC B



9. CISPR 22 B

