

# Medical & ITE

**General Purpose** 

Rated 120W Max. 150W Peak 200W SNP-G12 Series



2" x 4" x 1.28"

#### **Features:**

- Peak load  $(1.4 \sim 2 \text{ x rated current}, \text{Vo=rated for 5 sec})$
- Design for BF application
- Convection cooling for Rated power
- Built-in PFC and 12V output for fan, available for G12x, G16x, and G20x
- EMI class B
- -20°C to +70°C operating temperature

## **Applications:**

- For peak load and surge load applications, such as motor drive, coffee machine, vending machine, gaming machine, and otehr industrials.
- For EMI class B application, such as home healthcare device, and other medical devices.

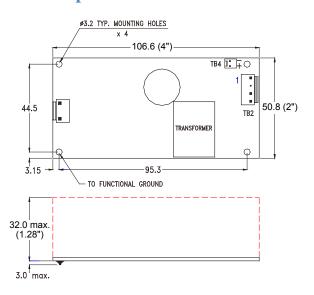
# **General Specifications:**

Input voltage	90 VAC to 264 VAC
Input frequency	
Inrush current	< 30/60A at 115/230VAC
Hold up time	20ms typical
Over load/Short circuit protection	auto recovery
Over voltage protection	latch off
Operating temperature	20°C to 70°C
derating: $2.5\%$ / °C > $45$ °	°C for convection cooling
Storage temperature	40°C to +85°C

EN55022 "B", EN61000-3-3					
EN61000-3-2, class D					
EN61000-4-2,-3,-4,-5,-6,-8,-11					
UL/CSA/EN60950-1, 2 <sup>nd</sup> edition					
ISI/AMMI/CSA/EN60601-1, 3.1 edition					
CB report, CE mark, RM report/file					
Energy Saving (for w/o -A suffix) ENERGY STAR					
for computers version 6.0					
for displays version 6.0					
ErP regulation EC(No) 1275/2008					

# **Mechanical Specifications:**

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#### **Notes:**

- 1. Size: 2" x 4" x 1.28"
- 2. Mounting Hole:
- 44.5 x 95.3 (mm)
- 3. Connectors:

AC input: JST B2P3-VH or equivalent

DC output: JST 710--VH04

Fan: Molex 5045-02A or equivalent
4. Output Pin assignment: Function Pin assignment:

1	2	3	4
Vo	Vo	GND	GND

	TB3
Function	FAN Output
1	GND
2	+12V

5. Packing:

Net weight: 160 g approx. / unit Gross weight: 10 kg approx. / carton, 80 units / carton Carton size (mm): 422 (L) x 412 (W) x 287 (H)

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



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## **Output Specifications:**

MODEL	OUTPUT	LOAD		INITIAL	STEP EFFICIENCY			AVERAGE		
NO.	RAIL	MIN.	RATED	MAX.	PEAK	ACCURACY	@ 20% LOAD	@ 50% LOAD	@ 100% LOAD	EFFICIENCY
SNP-G127 SNP-G127 -A SNP-G127 -M SNP-G127 -MA	+12V	0A	10.0A	12.5A	16.6A	+11.9V~+12.1V	82%	89%	90%	86.5%
SNP-G128 SNP-G128 -A SNP-G128 -M SNP-G128 -MA	+15V	0A	8.0A	10.0A	13.4A	+14.9V~+15.1V	82%	89%	90%	86.5%
SNP-G125 SNP-G125 -A SNP-G125 -M SNP-G125 -MA	+18V	0A	6.6A	8.3A	11.1A	+17.9V~+18.1V	82%	89%	90%	86.5%
SNP-G129 SNP-G129 -A SNP-G129 -M SNP-G129 -MA	+24V	0A	5A	6.3A	8.3A	+23.8V~+24.2V	83.5%	90%	90.5%	88%
SNP-G12G SNP-G12G-A SNP-G12G-M SNP-G12G-MA	+28V	0A	4.3A	5.4A	7.2A	+27.9V~+28.1V	83.5%	90%	90.5%	88%
SNP-G12J SNP-G12J -A SNP-G12J -M SNP-G12J -MA	+36V	0A	3.4A	4.2A	5.6A	+35.8V~+36.2V	83.5%	90%	90.5%	88%
SNP-G12T SNP-G12T-A SNP-G12T-M SNP-G12T-MA	+48V	0A	2.5A	3.1A	4.2A	+47.8V~+48.2V	83.5%	90%	90.5%	88%

#### Note:

**Standby Power Cosumption with System:** 

For computers and displays, ENERGY STAR in U.S. and ErP regulation in Europe require the input power should be less than 0.5W at standby mode.

Output Load:

120W for convection cooling; 150W for forced air cooling.

**Peak Load Duration:** 

Peak 200W can last for 5 sec.

**Isolation Grade:** 

←→ Ground : 1MOPP (1500Vac) Primary ← Secondary : 2MOPP (4000Vac)
 ← Ground : 1MOPP (1500Vac) Primary Secondary ←→ Ground

Leakage Current:

Earth leakage current < 300uA Touch current < 100uA

**EMI Grounding:** 

If there is a metal sheet under the power supply, connect the EMI ground to the metal sheet.

**Model Selection:** 

Most of power supplies will create audible burst sound at light load, if the application wants to meet input power < 0.5W at standby mode.

SNP-G12x is for ITE application which requires standby mode. SNP-G12x-A is for ITE application but without burst sound and no standby mode.

SNP-G12x-M is for medical application which requires standby mode.

SNP-G12x-MA is for medical application but without burst sound and no standby mode.

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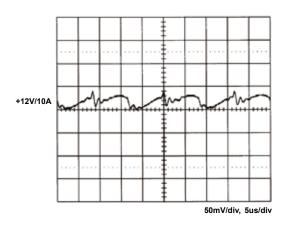


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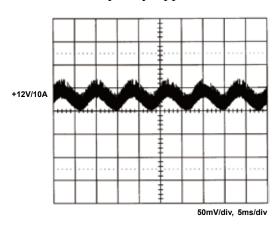
Rated 120W Max. 150W Peak 200W SNP-G12 Series

#### **Performance for SNP-G127:**

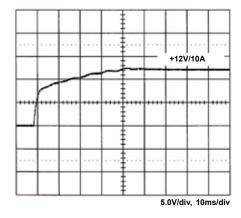
# 1. Switching frequency ripple



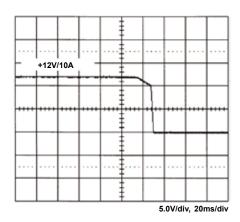
# 2. Line frequency ripple



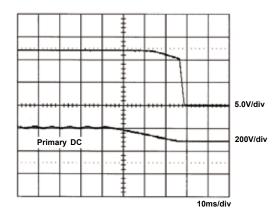
#### 3. Output turn on wave form



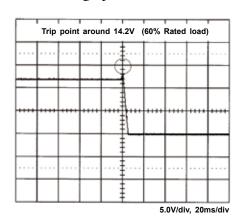
4. Output turn off wave form



## 5. Hold-up time



### 6. Over voltage protection



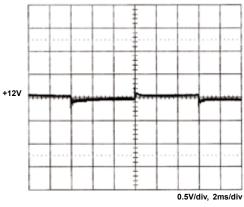
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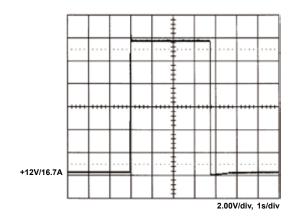
# 7. +12V step response



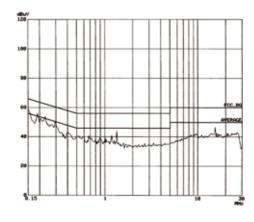
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+12V step from 3A to 10A

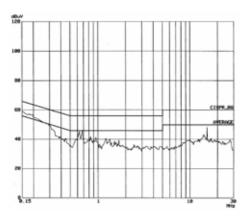
#### 8. +12V peak load



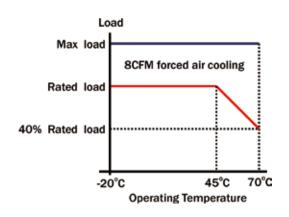
9. FCC B



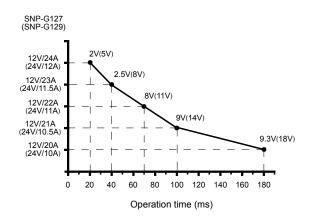
10. CISPR 22 B



## 11. Power derating curve



12. Capability for driving motor



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