



**3.3" x 5" x 1.7"**

### Features:

- Peak load (1.4 ~ 2 x rated current, 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:

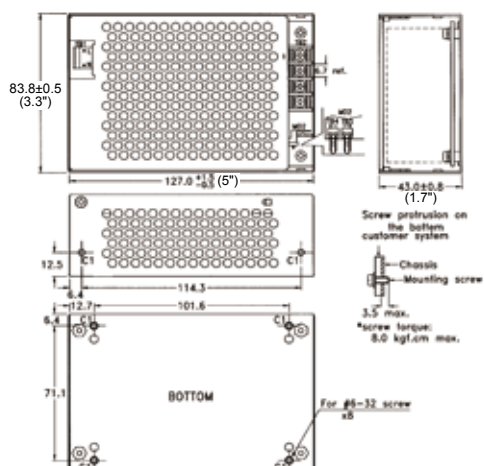
- For peak load and surge load applications, such as motor drive, coffee machine, vending machine, gaming machine, and other industrials.
- For EMI class B application, such as home healthcare device, and other medical devices.

### General Specifications:

Input voltage ..... 90 VAC to 264 VAC  
Input frequency ..... 47 Hz to 63 Hz  
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 > 50°C for convection cooling  
Storage temperature ..... -40°C to +85°C

EMI ..... EN55022 "B", EN61000-3-3  
Harmonics.....EN61000-3-2, class D  
EMS..... EN61000-4-2,-3,-4,-5,-6,-8,-11  
Safety ..... UL/CSA/EN60950-1, 2<sup>nd</sup> edition  
ANSI/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:



### Notes:

- Size: Fits 1U Height  
3.3" x 5" x 1.7"
- Mounting Hole:  
Side edge: 12.5 x 114.3 (mm)  
Bottom : 71.1 x 101.6 (mm)
- Connectors:  
AC input: Molex 5277-02A or equivalent  
DC output: Terminal blocks (default for SNP-G167-C) or Molex 5273-08A (default for others) or equivalent  
Fan, Remote sense: Molex 5045-02A or equivalent
- Output Pin assignment:

Pin No.	1	2	3	4	5	6	7	8
SNP-G167-C	+Vo	+Vo	GND	GND				
OTHER MODELS	+Vo	+Vo	+Vo	+Vo	GND	GND	GND	GND

Function Pin assignment:

Function Pin	TB3	TB4
1	FAN Output	Remote Sense -
2	+12V	Sense +

- Packing:  
Net weight: 539 g approx. / unit  
Gross weight: 16.3 kg approx. / carton, 24 units / carton  
Carton size (mm): 384 (L) x 339 (W) x 327 (H)

### Output Specifications:

MODEL NO.	OUTPUT RAIL	LOAD				INITIAL ACCURACY	STEP EFFICIENCY			AVERAGE EFFICIENCY
		MIN.	RATED	MAX.	PEAK		@ 20% LOAD	@ 50% LOAD	@ 100% LOAD	
SNP-G167 -C SNP-G167 -CA SNP-G167 -CM SNP-G167 -C5	+12V	0A	13.3A	20A	26.6A	+11.9V~+12.1V	80%	88%	89%	85.5%
SNP-G168 -C SNP-G168 -CA SNP-G168 -CM SNP-G168 -C5	+15V	0A	10.66A	16A	21.3A	+14.9V~+15.1V	80%	88%	89%	85.5%
SNP-G165 -C SNP-G165 -CA SNP-G165 -CM SNP-G165 -C5	+18V	0A	8.88A	13.33A	17.8A	+17.9V~+18.1V	80%	88%	89%	85.6%
SNP-G169 -C SNP-G169 -CA SNP-G169 -CM SNP-G169 -C5	+24V	0A	6.66A	10A	13.3A	+23.9V~+24.1V	80%	87%	89%	85.3%
SNP-G16G-C SNP-G16G-CA SNP-G16G-CM SNP-G16G-C5	+28V	0A	5.7A	8.55A	11.4A	+27.9V~+28.1V	80%	90%	90%	86.6%
SNP-G16J -C SNP-G16J -CA SNP-G16J -CM SNP-G16J -C5	+36V	0A	4.45A	6.66A	8.9A	+35.8V~+36.2V	80%	89%	89%	86%
SNP-G16T-C SNP-G16T-CA SNP-G16T-CM SNP-G16T-C5	+48V	0A	3.35A	5A	6.67A	+47.8V~+48.2V	80%	90%	90%	86.6%

### Note:

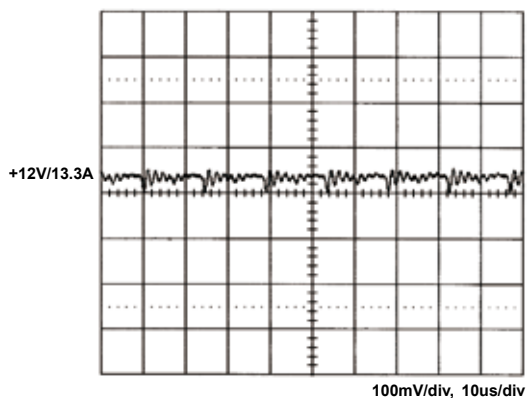
- Standby Power Consumption with System:**  
For computers and displays, ENERGY STAR in U.S. and ErP regulation in Europe require the input power should be less than 0.5W at standby mode.
- Output Load:**  
160W for convection cooling; 240W for forced air cooling.
- Peak Load Duration:**  
Peak 320W can last for 5 sec.
- Isolation Grade:**  
Primary ↔ Ground : 1MOPP (1500Vac)  
Primary ↔ Secondary : 2MOPP (4000Vac)  
Secondary ↔ Ground : 1MOPP (1500Vac)
- Leakage Current:**  
Earth leakage current < 300uA  
Touch current < 100uA
- 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-G16x-C is for ITE application which requires standby mode.  
SNP-G16x-CA is for ITE application but without burst sound and no standby mode.  
SNP-G16x-CM is for medical application which requires standby mode.  
SNP-G16x-C5 is for medical application but without burst sound and no standby mode.

\* SNP-G16x-C5, 5=MA

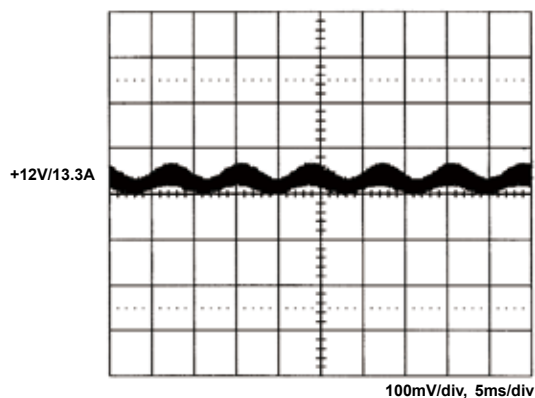
-Jim-

## Performance for SNP-G167-C:

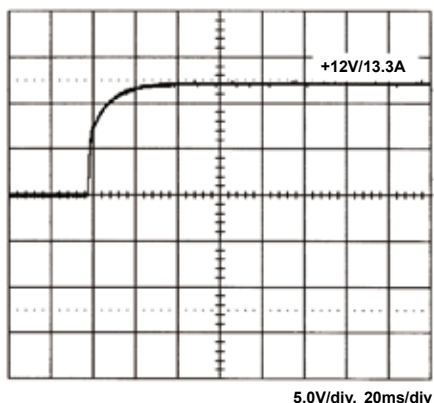
### 1. Switching frequency ripple



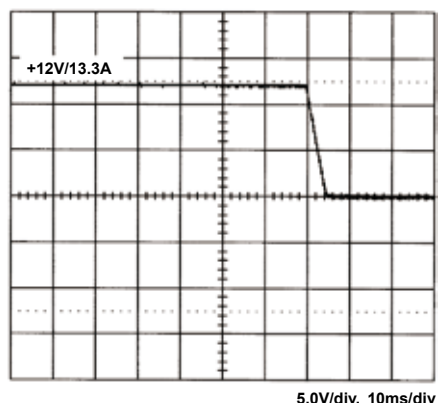
### 2. Line frequency ripple



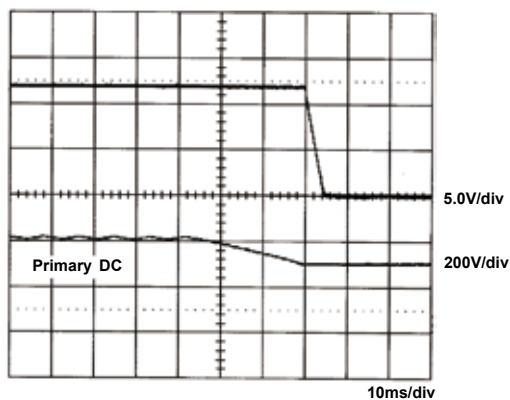
### 3. Output turn on wave form



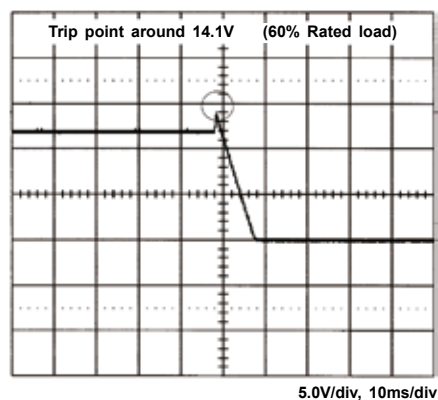
### 4. Output turn off wave form



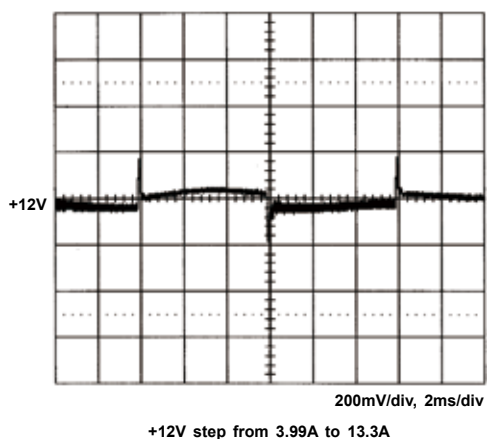
### 5. Hold-up time



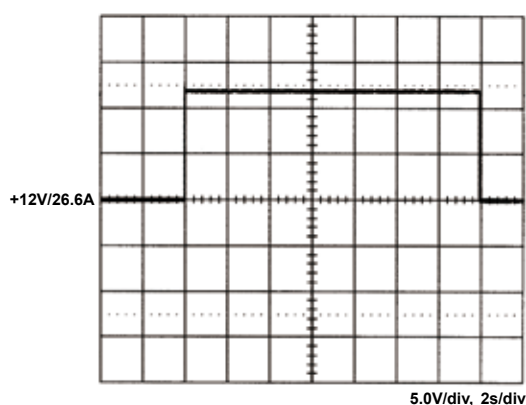
### 6. Over voltage protection



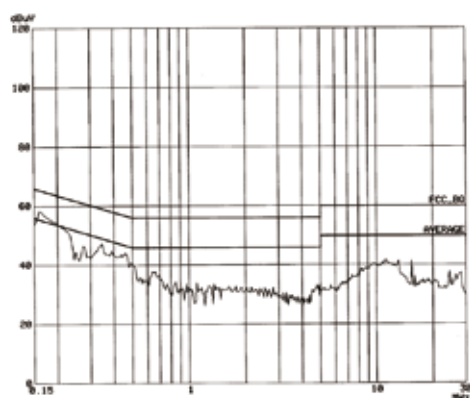
7. +12V step response



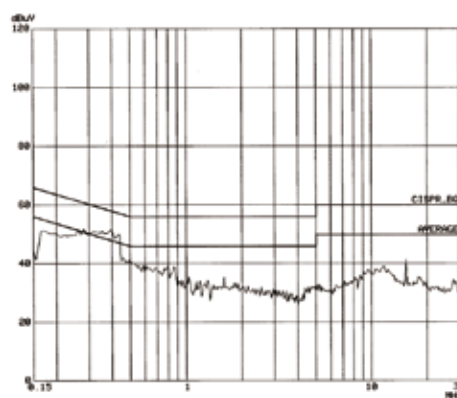
8. Peak load



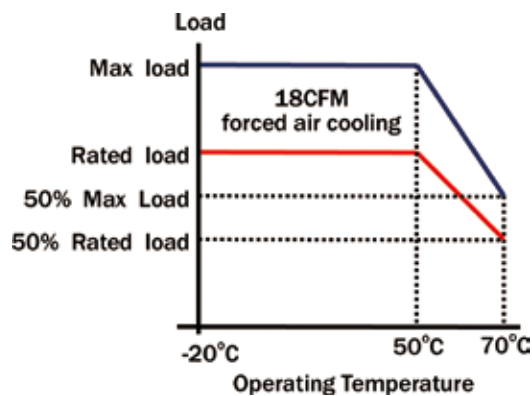
9. FCC B



10. EN55022 B



11. Power derating curve



12. Capability for driving motor

