

# Datasheet

## SNP-G30

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**4.2" x 8" x 1.65"**

## General Specifications:

Input voltage ..... 90 VAC to 264 VAC  
 Input frequency ..... 47 Hz to 63 Hz  
 Power factor ..... > 0.93  
 Inrush current ..... < 30A at 115VAC  
 (cold start at 25°C) or < 60A at 230VAC  
 Efficiency ..... 87%~93% depends on models  
 Hold up time ..... > 20 ms  
 at rated load and 115VAC  
 Over load protection ..... auto recovery  
 Short circuit protection ..... auto recovery  
 Energy saving ..... meet Energy Star ver. 2.0 level V

## Features:

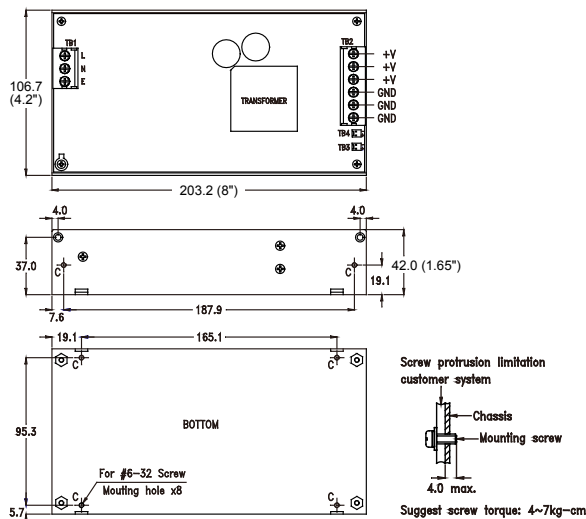
- With built-in active PFC
- Only 1.5 inch height
- 6.0 Watt per cubic inch
- With ITE & Medical safety
- No load input power < 0.5W
- Average efficiency > 87%
- Operation from -20°C to 70°C by convection

## Applications:

- For patient contact medical device.
- For power saving required system.

Over voltage protection ..... latch off  
 Operating temperature (open frame type) ..... -20°C to 70°C  
 derating: 2.5% / °C > 50°C  
 Cooling ..... 300W free air convection  
 350W 18CFM forced air  
 Storage temperature ..... -20°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<sup>rd</sup> edition  
 CB report, CE mark, RM report/file

## Mechanical Specifications:



## Notes:

1. Size:  
4.2 x 8.0 x 1.65 (inch)
2. Mounting Hole:  
95.3 x 165.1 (mm)
3. Connectors:  
AC input: Terminal blocks  
DC output: Terminal blocks  
Fan, Remote sense, LED :  
Molex 5045-02A or equivalent
4. Output Pin assignment:
 

1	2	3	4	5	6
Vo	Vo	Vo	GND	GND	GND
5. Packing:  
Net weight: 740 g approx. / unit  
Gross weight: 14 kg approx. / carton, 16 units / carton  
Carton size (mm): 426 (L) x 313 (W) x 267 (H)

## Output Specifications:

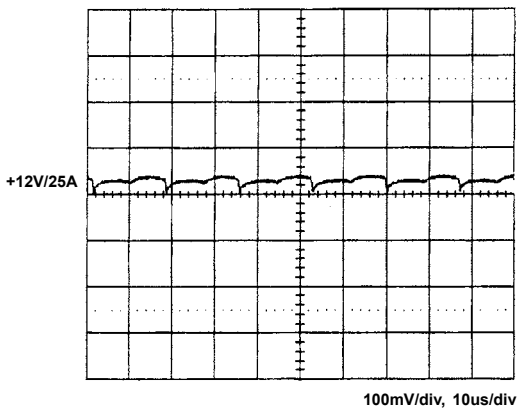
MODEL NO.	OUTPUT RAIL	LOAD				VOLTAGE ACCURACY	RIPPLE NOISE	LINE REG.	LOAD REG.
		MIN.	RATED	MAX.	PEAK				
SNP-G307 SNP-G307-A SNP-G307-M SNP-G307-MA	+12V	0A	25A	30A	45A	+11.40V~+12.60V	100mVpp	±1%	±1%
SNP-G308 SNP-G308-A SNP-G308-M SNP-G308-MA	+15V	0A	20A	24A	40A	+14.25V~+15.75V	100mVpp	±1%	±1%
SNP-G305 SNP-G305-A SNP-G305-M SNP-G305-MA	+18V	0A	17A	20.5A	34A	+17.10V~+18.90V	150mVpp	±1%	±1%
SNP-G309 SNP-G309-A SNP-G309-M SNP-G309-MA	+24V	0A	12.5A	15A	22.5A	+23.80V~+24.20V	200mVpp	±1%	±1%
SNP-G30T SNP-G30T-A SNP-G30T-M SNP-G30T-MA	+48V	0A	6.3A	7.6A	12.6A	+45.60V~+50.40V	200mVpp	±1%	±1%
SNP-G30H SNP-G30H-A SNP-G30H-M SNP-G30H-MA	+60V	0A	5A	6A	10A	+54.50V~+65.50V	200mVpp	±1%	±1%

### Note:

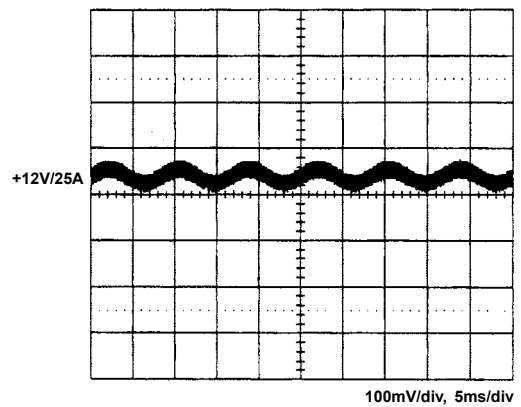
- Each output can provide up to max load separately when the power supply starts up. To exceed the max. output power continuously is not allowed.
- At factory, in 60% rated load condition, each output is checked to be within voltage accuracy.
- Line regulation is defined by changing ±10% of input voltage 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 drops down to low limit of main output at rated load and nominal line.
- Efficiency is measured at rated load and nominal line.
- 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-G30x is for ITE application which requires standby mode.  
SNP-G30x-A is for ITE application but without burst sound and no standby mode.  
SNP-G30x-M is for medical application which requires standby mode.  
SNP-G30x-MA is for medical application but without burst sound and no standby mode.

## Performance for SNP-G307:

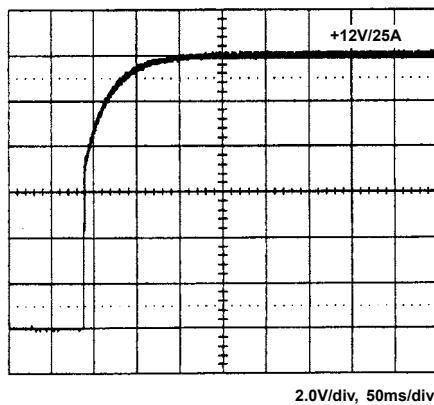
### 1. Switching frequency ripple



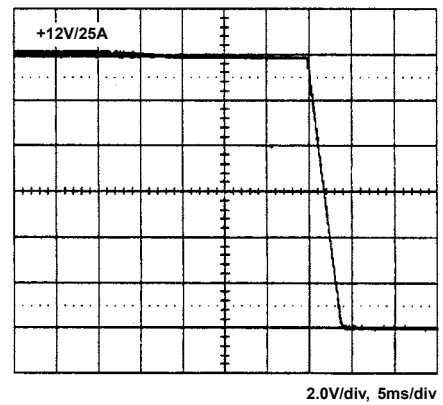
### 2. Line frequency ripple



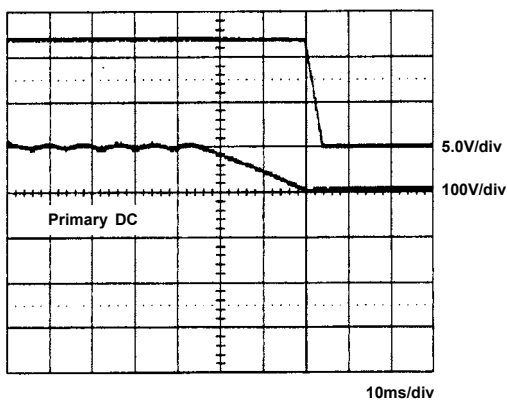
### 3. Output turn on wave form



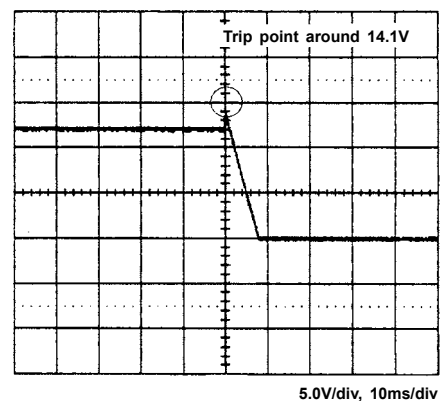
### 4. Output turn off wave form



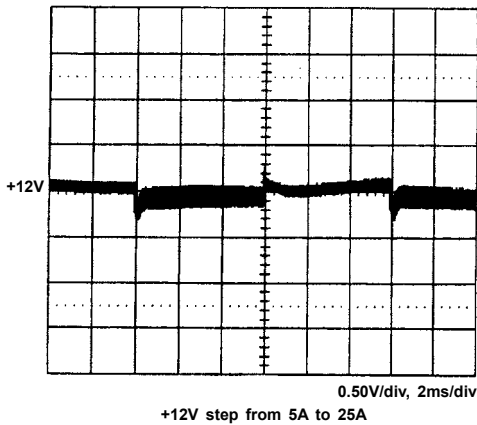
### 5. Hold-up time



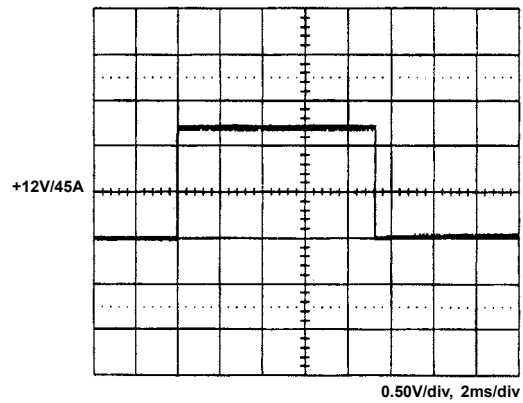
### 6. Over voltage protection



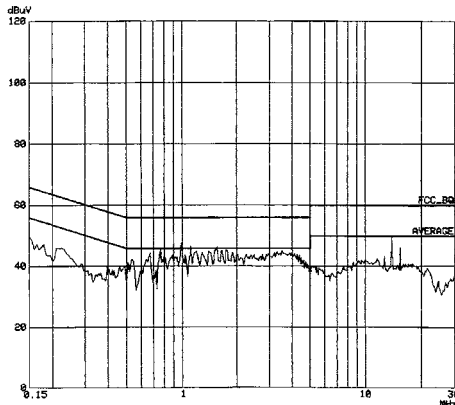
### 7. +12V step response



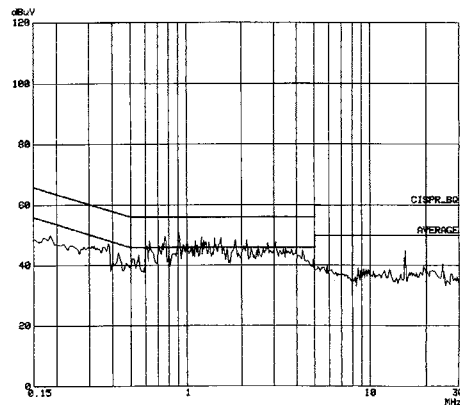
### 8. +12V peak load



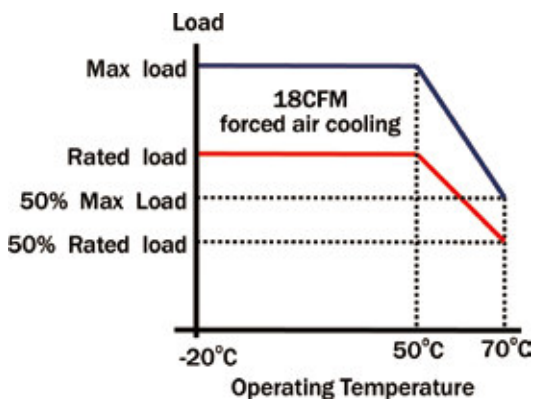
### 9. FCC B



### 10. CISPR 22 B



### 11. Power derating curve



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