SPECIFICATION

For

SWITCHING POWER SUPPLY

M/N : SNP-G12G

STANDARD PRODUCT

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Reviewed by Product Engineer	Jim 10-18-04					
Typed by Document Assistant	1015'19					
SKYNET ELECTRONIC			**LAST REV. NO.**			

1.0 INTRODUCTIONS

SNP-G12G is an open frame, general purpose and rated 120W SMPS. It also features in ITE safety and green power.

2.0 INPUT SPECIFICATIONS

2.1 Input Voltage

Input voltage range : 90Vac to 264Vac
Nominal line voltage : 115Vac/230Vac

2.2 Input frequency

47Hz to 63Hz

2.3 Input current

$2A_{rms}$ max/115Vac, $1A_{rms}$ max/230Vac

2.4 Inrush current

30A max/115Vac, 60A max/230Vac (EMI capacitors excluded, cold start at 25°C)

2.5 Test Condition

All specs except international standards or specs with special notes are defined and tested at nominal line input, rated load and 25°C.

3.0 OUTPUT SPECIFICATIONS

3.1 Load range

Vo	min. load	rated load	max. load	peak load
+28V	0A	4.3A	5.4A	7.2A

3.1.1 Factory adjustment

+27.9V to +28.1V (60% rated load, 115Vac)

3.1.2 Peak load max duration

2sec. (duty cycle < 10%, average power < 100W)

3.2 Ripple and noise

< 150mV (20MHz bandwidth limited, 1X probe with 0.47uF parallel capacitor)

3.3 Line regulation

< ±0.5% (90Vac to 264Vac, comparing with 115Vac)

3.4 Load regulation

< ±1% (20% to 100% rated load, comparing with 60% rated load)

3.5 Capacitive load start-up capability

< 4000uF (90Vac rated load)

4.0 GENERAL FEATURES

4.1 Efficiency
Rated load efficiency : 90% typical
Average efficiency of 25%, 50%, 75% and 100% rated load : >87%

4.2 Hold up time
> 20 ms

4.3 No load input power
<0.5W (without FAN connection)

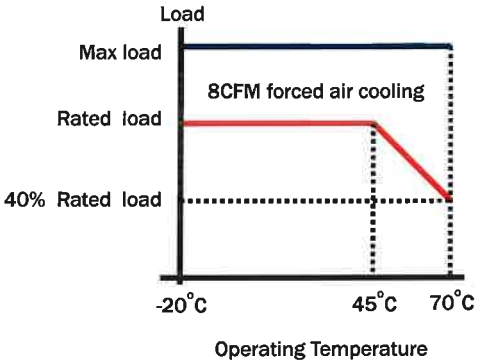
4.4 Protection
4.4.1 Over-voltage protection
Trip point : +29V to +34V (60% rated load)
Protection mode : Latch - off

4.4.2 Output short or overload protection
Protection mode : Auto-recovery

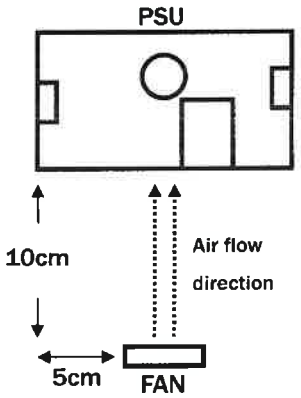
5.0 ENVIRONMENT SPECIFICATIONS

5.1 Operating temperature
-20°C to 70°C
Output load derates linearly to 40% from 45°C to 70 °C)
(Rated load with convection cooling; max load with 8 CFM forced air cooling)

Output derating curve



Max Load Fan location



5.2 Storage temperature
-40°C to 85°C

5.3 Operating humidity
5% to 95% RH, non-condensing

5.4 Altitude
0 to 3000m

5.5 MTBF
> 160Khrs (based on MIL-HDBK-217F, rated load, 45 °C)

6.0 INTERNATIONAL STANDARDS

6.1 Safety standards

Designed to meet the following regulations :
Label voltage : 100Vac to 240Vac
UL/CSA/EN//IEC 60950-1
UL/CSA/EN/IEC 62368-1

6.2 EMI standards

FCC docket 20780 curve "B"
CISPR 22 "B"
EN 61000-3-2 class "D"
EN 61000-3-3

6.3 EMS standards

EN61000-4-2	8kV/contact discharge, 15kV/air discharge	Criterion A
EN61000-4-3	10V/M with 80% AM	Criterion A
EN61000-4-4	2kV (100KHz)	Criterion A
EN61000-4-5	1kV/Line-Line, 2kV/Line-Earth	Criterion A
EN61000-4-6	10V with 80% AM	Criterion A
EN61000-4-8	30A/m	Criterion A
EN61000-4-11	30% dips 500ms,	Criterion A
	60% dips 200ms,	Criterion B
	100% dips 10ms,	Criterion A
	100% dips 5000ms,	Criterion B
	100% dips 20ms,	Criterion B

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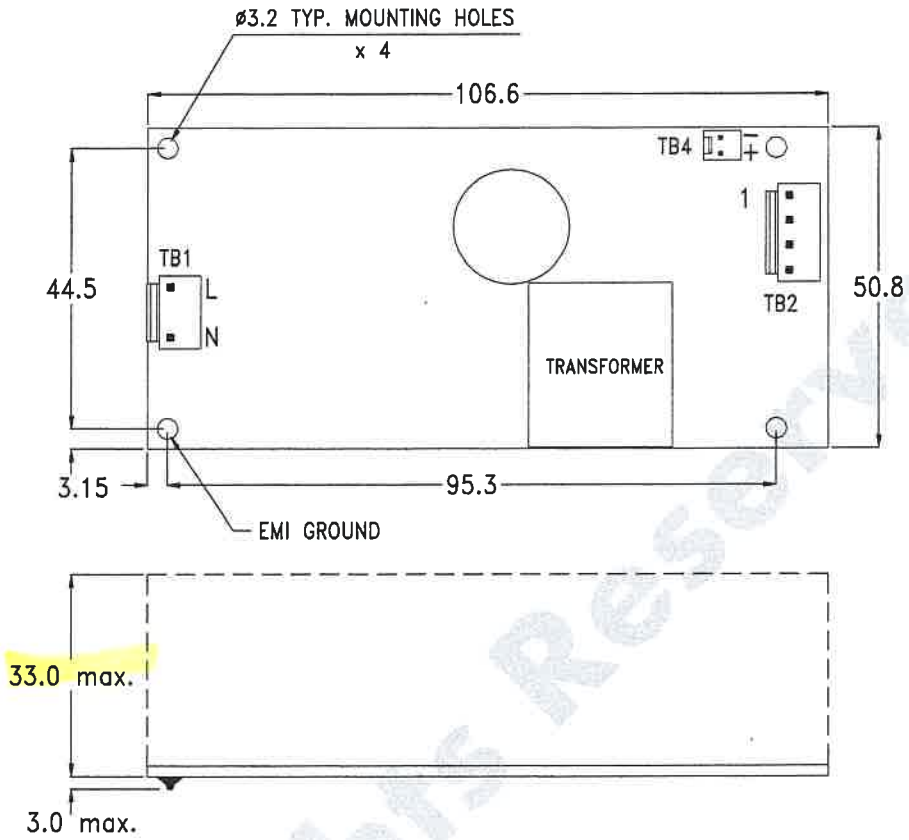
7.0 MECHANICAL SPECIFICATION

7.1 Dimensions

Dimensions shown in mm as below. Tolerance specified is +/-0.4mm.



7.2 Connectors

B1--AC Input : using JST B2P3-VH or equivalent
(Mates with : JST VHR-3N housing or equivalent)
TB2--DC Output : using JST B4P-VH or equivalent
(Mates with : JST VHR-4N or equivalent)
TB4--For +12V fan use only : using Molex 5045-02A or equivalent
(Mates with : Molex 5051-02 housing or equivalent)

7.3 DC Output pin assignment

Position
1. GND
2. GND
3. + 28V
4. + 28V

7.4 Packing

Net weight : 160g approx. / unit
Carton size(mm) : 446 (L) x 412 (W) x 287(H)
Quantity : 80 units / carton
Gross weight : 16.0 kg approx. / carton

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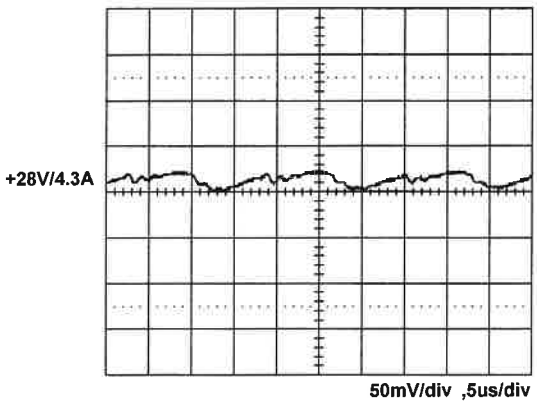
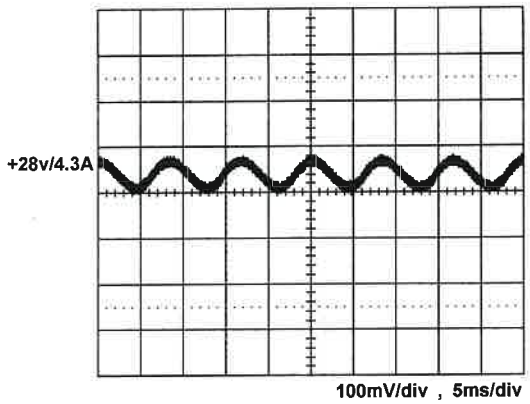
8.0 PERFORMANCE (input voltage is 115VAC, unless others specified)

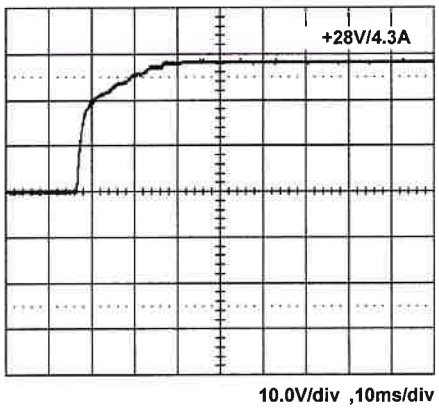
8.1 Switching frequency ripple



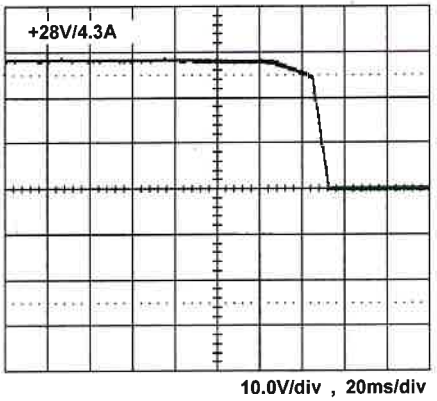
8.2 Line frequency ripple



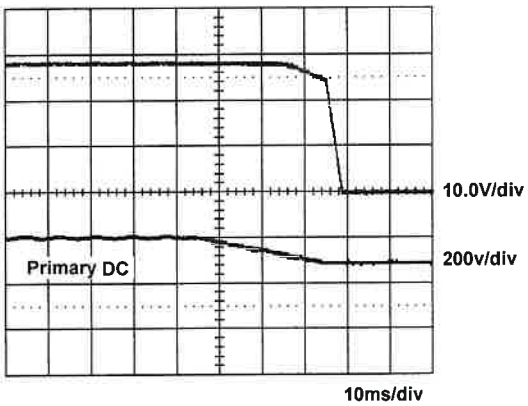
8.3 Output turn on wave form



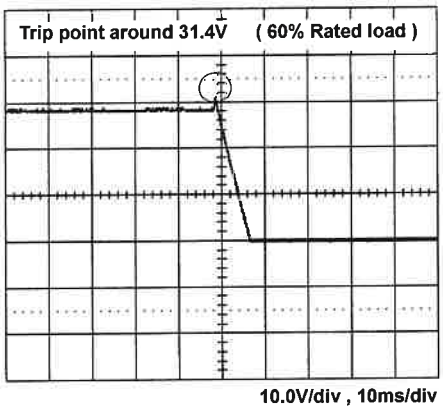
8.4 Output turn off wave form



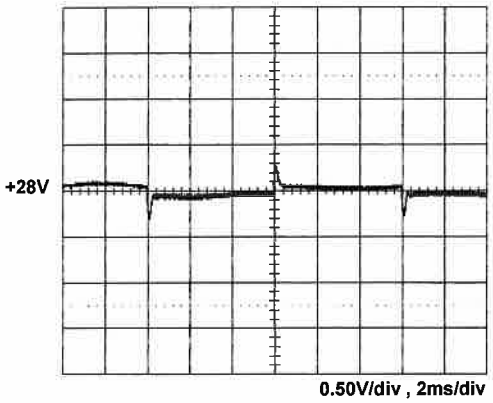
8.5 Hold-up time



8.6 Over voltage protection

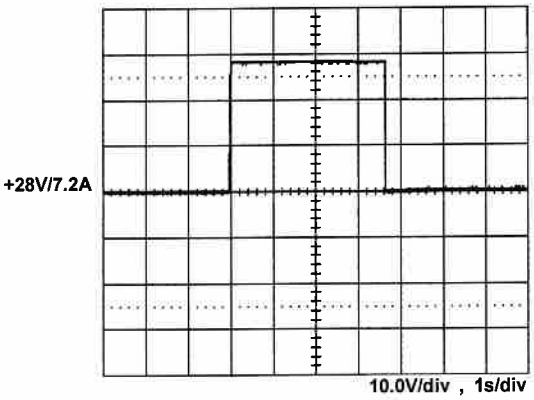


8.7 +28V step response

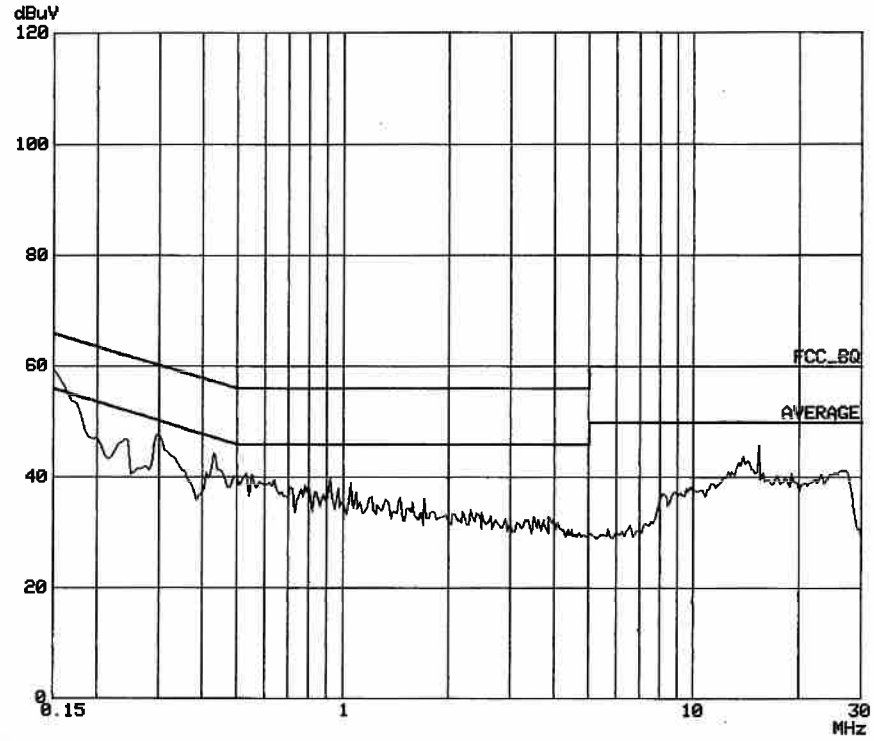


+28V step from 1.29A to 4.3A

8.8 +28V peak load



8.9 FCC B performance



8.10 CISPR 22 B