SPECIFICATION

For

SWITCHING POWER SUPPLY

M/N : SNP-GK67-M

STANDARD PRODUCT

Reviewed by Product Manager						
Typed by Document Assistant						
SKYNET ELECTRONIC			LAST REV. NO.			

1.0 INTRODUCTIONS

SNP-GK67-M is an open frame and rated 60W SMPS for general purpose use. It features in Medical safety, green power and low profile.

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

1.4A_{rms} max/115Vac, 0.9A_{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	peak load
+12V	0A	5.0A	6.5A

3.1.1 Factory adjustment

+11.8V to +12.2V (60% rated load, 115Vac)

3.1.2 Peak load max duration

3sec. (duty cycle < 10%, average power < rated load)

3.2 Ripple and noise

< 120mV (20MHz bandwidth limited, 1X probe with 0.47uF parallel capacitor)

3.3 Line regulation

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

3.4 Load regulation

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

3.5 Start up time

<0.5sec (100Vac)

3.6 Capacitive load start-up capability

< 45000uF

4.0 GENERAL FEATURES

4.1 Efficiency
85% typical

4.2 Hold up time
16 ms typical

4.3 No load input power
0.5W typ.

4.4 Min load for no acoustic noise
5W

4.5 Protection

4.5.1 Over-voltage protection
Trip point : +14.5V to +18.5V (60% rated load)
Protection mode : Latch-off

4.5.2 Short circuit and over-load protection
Protection mode : Auto-recovery

5.0 ENVIRONMENT SPECIFICATIONS

5.1 Operating temperature
-20°C to 70°C
(Output reduces linearly to 50% load from 50°C to 70 °C)
(-20°C can startup with 50% rated load)
(0°C can startup with 100% rated load)

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
> 0.4Mhrs (based on MIL-HDBK-217F, rated load, 50 °C)

6.0 INTERNATIONAL STANDARDS

6.1 Safety standards

(Label Voltage: 100 ~ 240VAC)
3rd Edition:
ANSI/AAMI ES60601-1 : 2005
CAN/CAS-C22.2 NO.60601-1 : 2008
IEC60601-1 : 2005
EN60601-1 : 2006+A11+A12
3.1 Edition:
ANSI/AAMI ES60601-1:2005/ (R) 2012 +A1:2012 +A2 : 2010
CAN/CSA-C22.2 NO.60601-1(2014)
IEC 60601-1:2005+A1:2012
EN60601-1:2006+A11:2011+A1:2013+A12:2014

6.1.1 Isolation level

Transformer : Class B
Primary to secondary : double insulation, 2 MOPP
Primary to PE : Basic insulation , 1 MOPP
Secondary to PE : Basic insulation , 1 MOPP

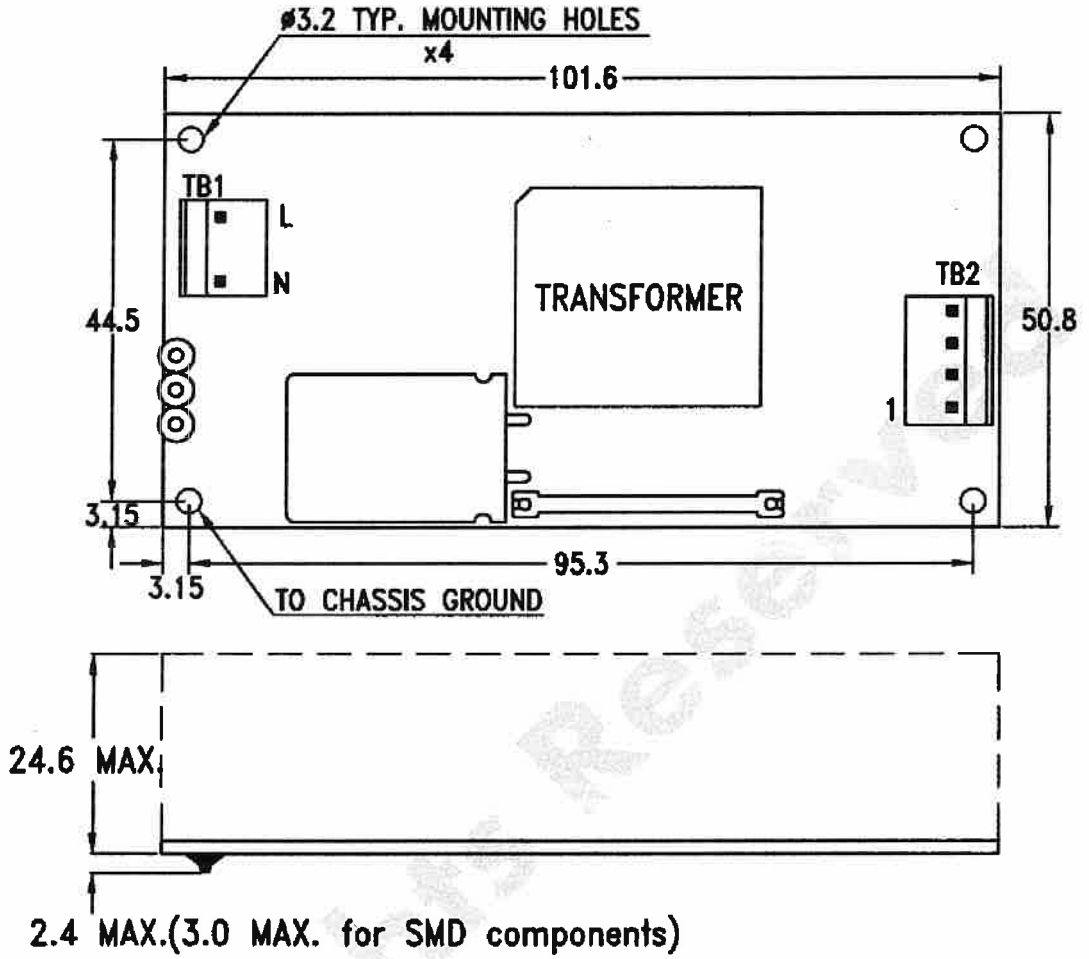
6.2 EMI standards

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

7.0 MECHANICAL SPECIFICATION



7.1 Dimensions

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

7.2 Connectors

TB1--AC Input : Molex 5277-02A or equivalent.

TB2--DC Output : Molex 5273-04A or equivalent.

7.3 DC Output pin assignment

Pin 1 + 12V
2 + 12V
3 GND
4 GND

7.4 Packing

Net weight : 120 g approx. / unit

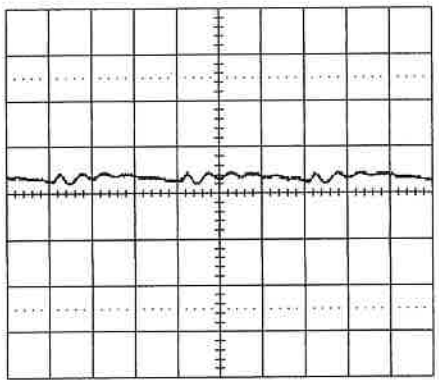
Carton size(mm) : 422 (L) x 382 (W) x 277 (H)

Quantity : 100 units / carton

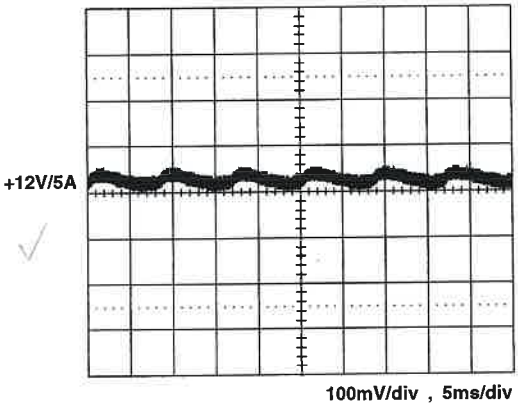
Gross weight : 14.5 kg approx. / carton

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

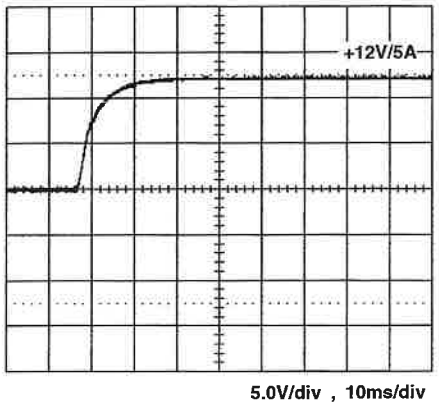
8.1 Switching frequency ripple



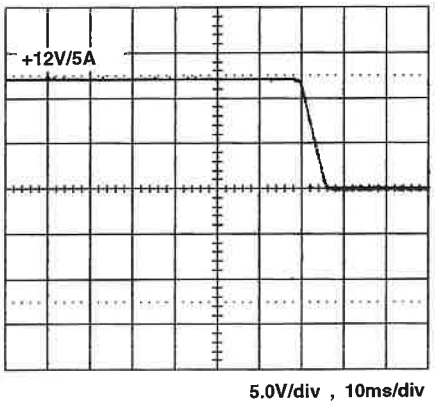
8.2 Line frequency ripple



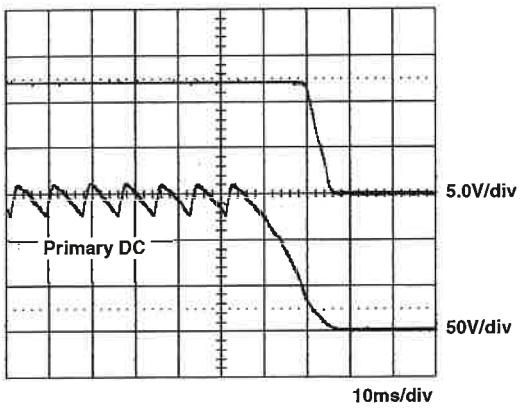
8.3 Output turn on wave form



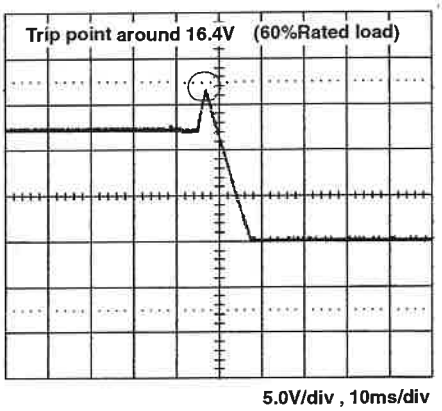
8.4 Output turn off wave form



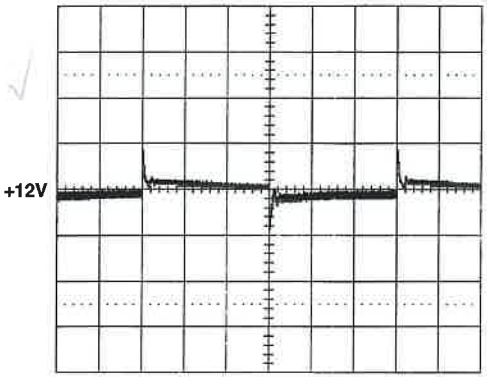
8.5 Hold-up time



8.6 Over voltage protection

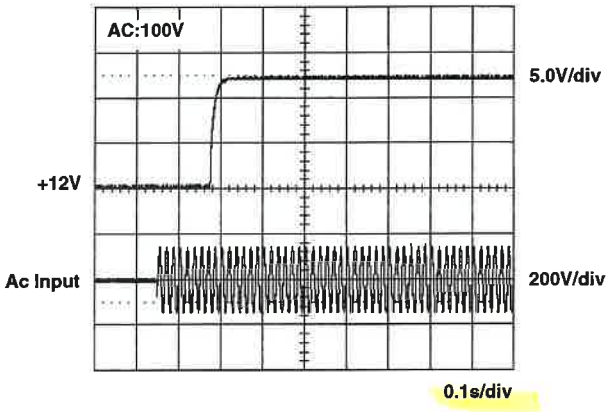


8.7 +12V step response

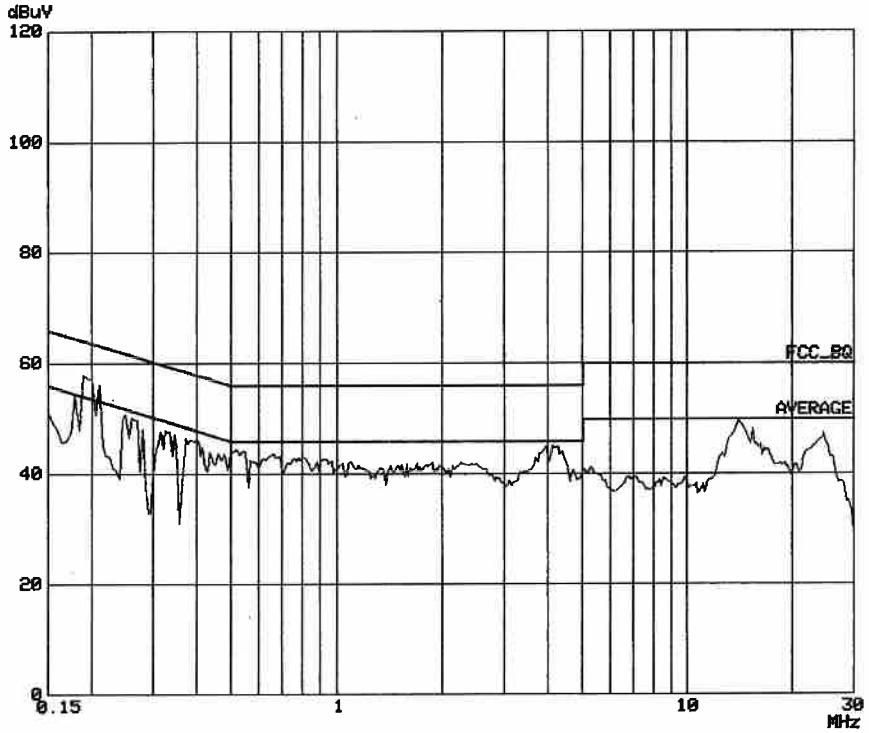


+12V step from 1A to 5A

8.8 Start up Time



8.9 FCC B performance



8.10 EN55022 "B"