SPECIFICATION

and

PERFORMANCE

for

SWITCHING POWER SUPPLY

M/N : SNP-D249

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SKYNET ELECTRONIC			LAST REV. NO.			

1.0 INTRODUCTIONS

The SNP-D249 is a 240W AC-DC switching mode power supply with universal input and adjustable single output, which is designed for Din-Rail application.

2.0 INPUT SPECIFICATIONS

2.1 Input Voltage

The range of input voltage is from 90VAC to 264VAC.
Nominal line 115/230VAC.

2.2 Input frequency

The range of input frequency is from 47Hz to 63Hz.

2.3 Input current

The maximum input current is 6A at 115VAC or 2.6A at 230VAC.

2.4 Inrush current

The inrush current will not exceed 30A at 115VAC input or 60A at 230VAC input, cold start, 25°C.

3.0 OUTPUT SPECIFICATIONS

3.1 Load range

output	min. load	rated load	max. load	voltage accuracy
+24V	0A	10A	12A	23.52V to 24.48V

At factory, output in 60% rated load and nominal input conditions, the +24V output is adjusted between 23.95V and 24.05V.
The output voltage could be adjustable from 23.5 ~29VDC.
The max. load could deliver 60 seconds min. The rated load is 240W.
The total continuous output power shall be kept within 240W.

3.2 Ripple and noise

The peak to peak ripple and noise for +24V output is less than 50mV. Measuring is done by 15MHz band width limited oscilloscope and terminated the output with a 0.47uF capacitor at rated load, nominal line.

3.3 Line regulation

The line regulation for +24V is less than + -1% while measuring at rated load and + -10% of input voltage changing.

3.4 Load regulation

The load regulation for +24V is less than + -2%, measuring is done by changing the measured output load from 0% to 100% of rated load, 115/230VAC.

4.0 GENERAL FEATURES

4.1 Efficiency

The efficiency is 85% typical at 115VAC or 90% typical at 230VAC while measuring at rated load.

4.2 Hold up time

The hold up time is longer than 20mS at 115VAC input and rated load, which is measured from the end of the last charging pulse to when the main output drops down to 95% output voltage.

4.3 Protection

4.3.1 Over voltage protection

For some reason the power supply fails to control itself, the build-in over voltage protection circuit will shut down the outputs to prevent damaging external circuits. The trip point is 32~38V.

4.3.2 Short circuit & over load protection

The power supply will go into hiccup mode against short circuit or over load conditions and will auto-recovery while faulty conditions are removed.

4.4 Startup delay

1.9sec. nominal line, rated load (counted from input ON)

4.5 Front panel indicator

Green LED, goes out at Vout < 20.5V ~ 23.5V.

4.6 MTBF

425,000h at 24VDC/10A, 230VAC input, 40°C according to MIL-HDBK 217F (GB).

5.0 ENVIRONMENT SPECIFICATIONS

5.1 Operating temperature

0°C to 70°C (> 60°C : derating, 6W/K)

At work, it needs 10 cm convection space from the top ventilation hole to the other object, and 3 cm convection space from the bottom ventilation hole to the other object.

5.2 Storage temperature

-40°C to 85°C

5.3 Altitude

Will operate properly at any altitude between 0 to 10000 ft.

6.0 INTERNATIONAL STANDARDS

6.1 Safety standards

Designed to meet the following standards :

UL 1950

UL 508

CSA 22.2 NO.950-M90

EN 60 950

6.2 EMI standards

Designed to meet the following limits :

FCC docket 20780 curve "B"

EN 55022 "B"

EN 61000-3-2 class "D"

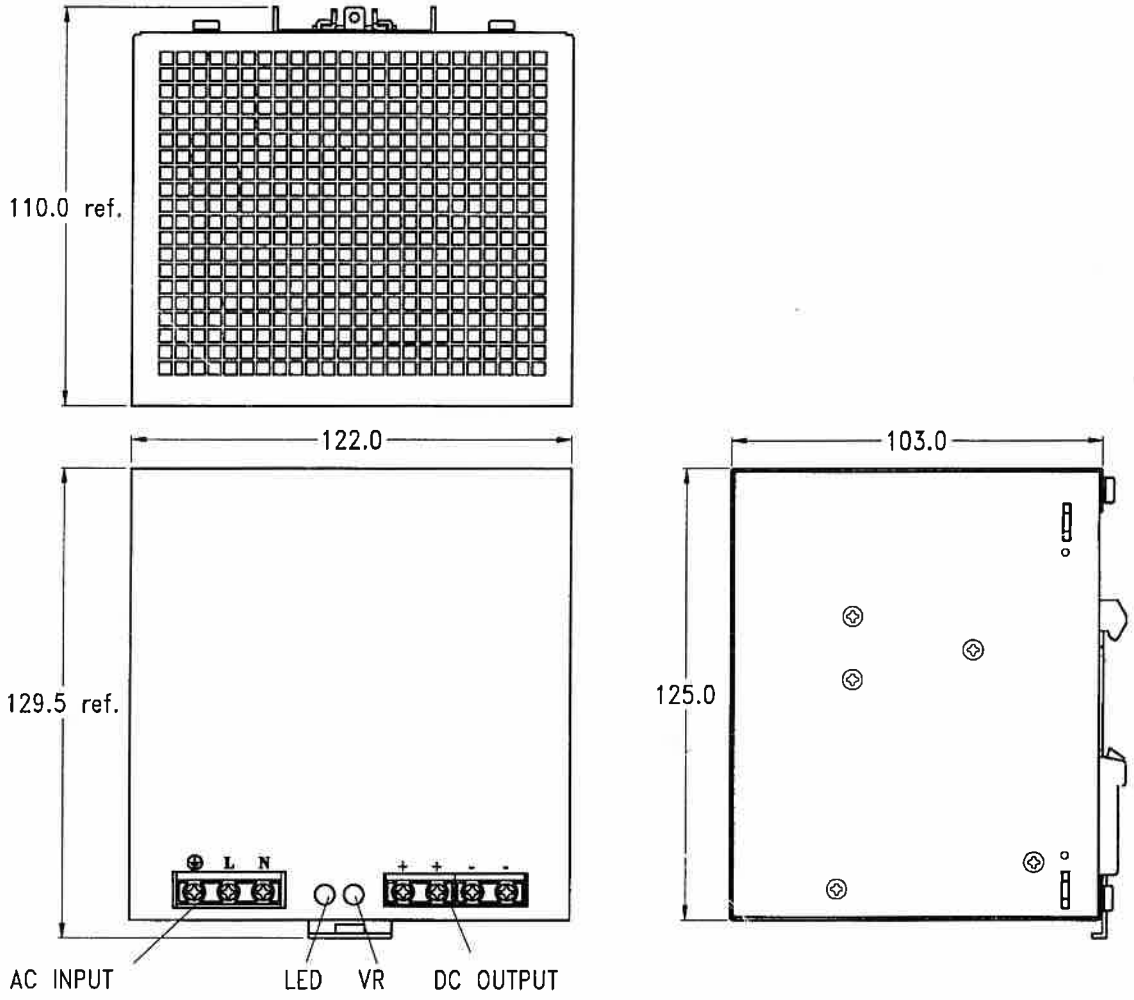
EN 50081-1

6.3 EMS standards

EN 50082-2

EN 61000-4-2	6KV contact discharge, 8KV air discharge	Criteria A
EN 61000-4-3	10V/m with 80% AM	Criteria B
EN 61000-4-4	2KV	Criteria A
EN 61000-4-5	4KV	Criteria A
EN 61000-4-6	10V/M with 80% AM	Criteria A
EN 61000-4-8	1A/M	Criteria A
EN 61000-4-11	30% dips 10ms	Criteria A
	60% dips 100ms	Criteria C
	95% dips 5000ms	Criteria C

7.0 MECHANICAL SPECIFICATION



7.1 Dimensions

Dimensions shown in mm as above. Tolerance specified is + -0.8mm.

7.2 Connectors

AC & DC Connector : Terminal blocks
(suitable wire 26~10AWG, wire strip length 6~7mm)

7.3 Power on indicator

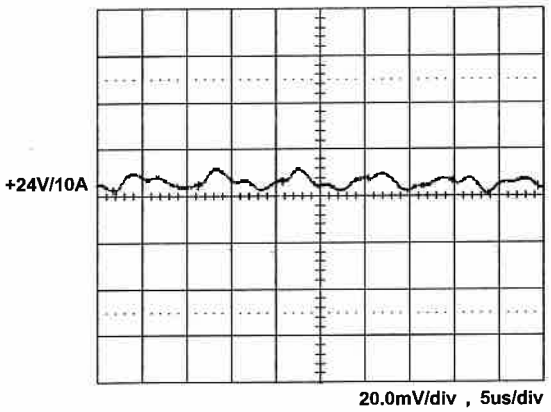
Green light on the panel

7.4 Hook

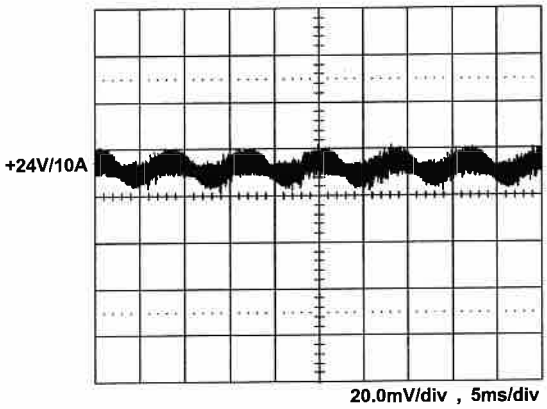
Hook : For 35mm wide rail

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

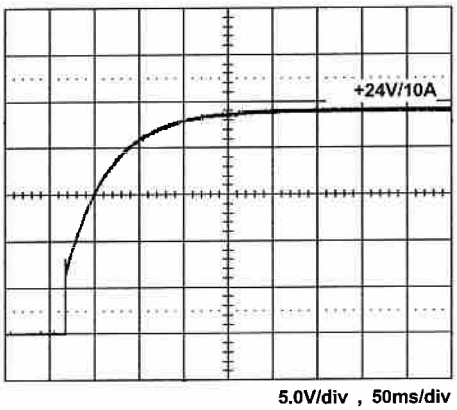
8.1 Switching frequency ripple



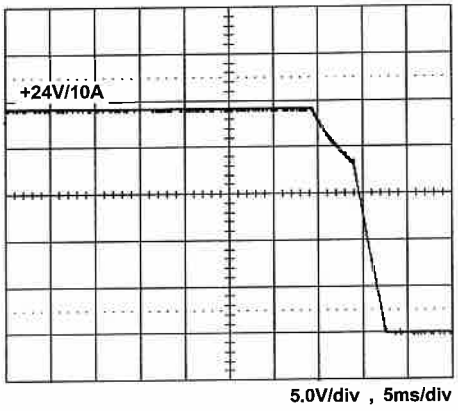
8.2 Line frequency ripple



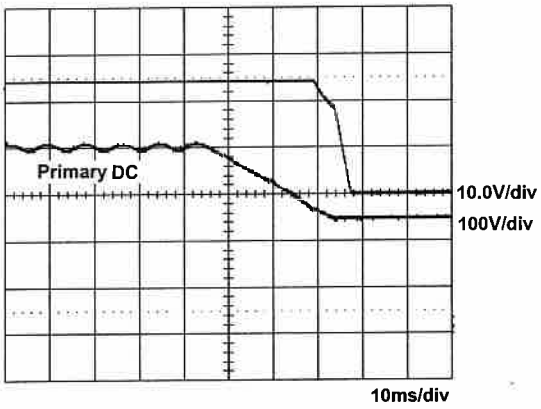
8.3 Output turn on wave form



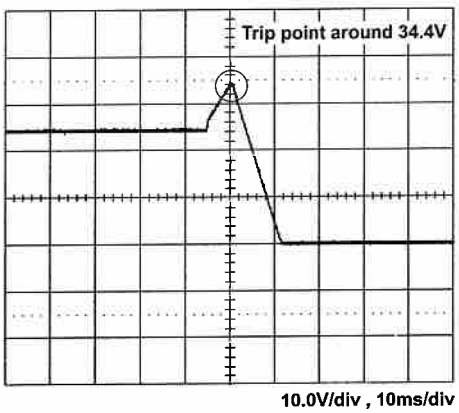
8.4 Output turn off wave form



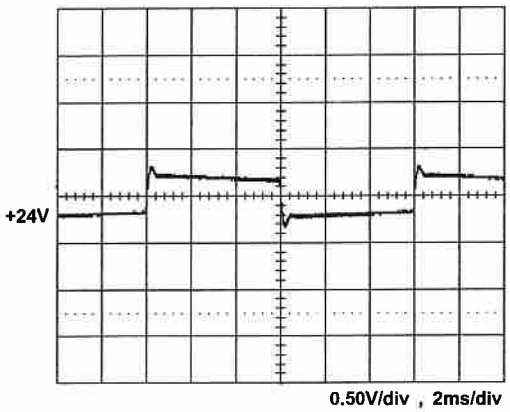
8.5 Hold-up time



8.6 Over voltage protection

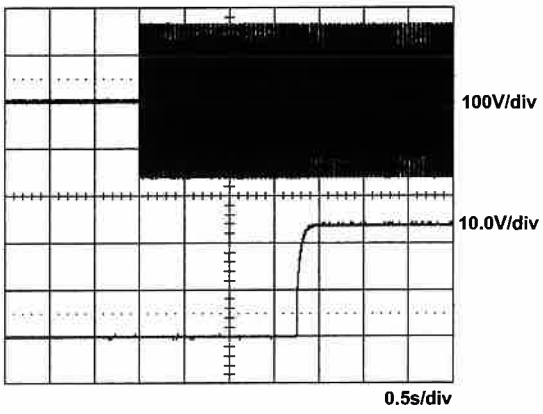


8.7 +24V step response

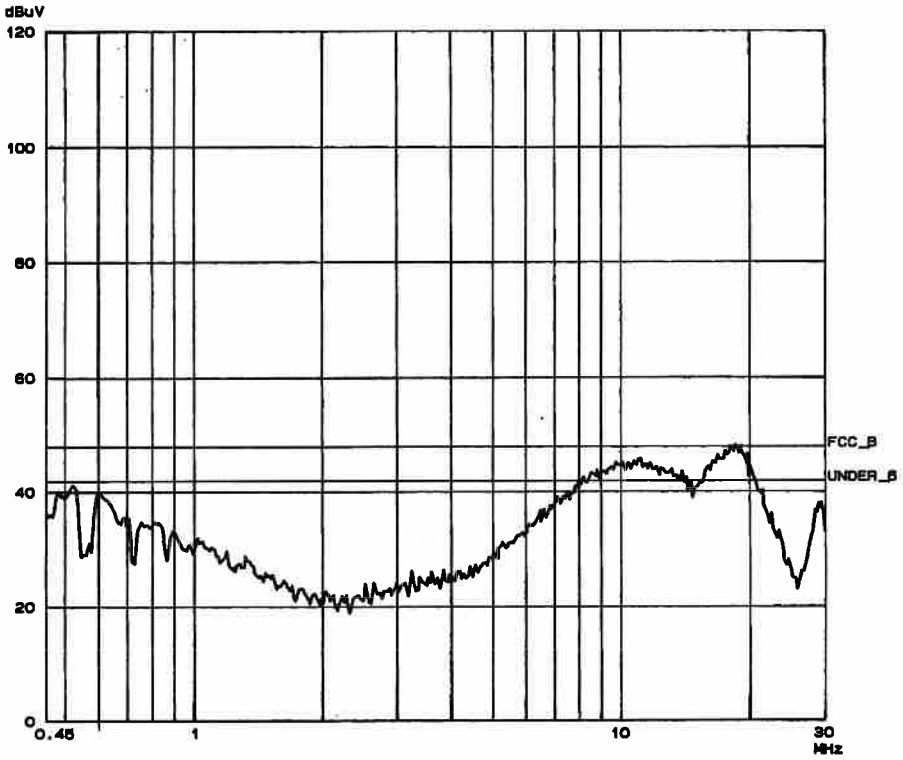


+24V step from 2A to 10A

8.8 Start - up delay



8.9 FCC B performance



8.10 EN 55022 B