# SPECIFICATION

**For**

SWITCHING POWER SUPPLY

## M/N : SNP-P157-S

STANDARD PRODUCT

| | | | | | | |
|---|---|---|---|---|---|---|
| Reviewed by Product Engineer | | | | | | |
| Typed by Document Assistant | | | 081016 | | | |
| **SKYNET ELECTRONIC** | | | **LAST REV. NO.** | | | |

## 1.0 INTRODUCTIONS

SNP-P157-S is a 3" × 5" open frame 150W SMPS with +5Vsb output and remote on/off function.

## 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

2Arms max/115Vac, 1Arms 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 | 12A | 18A |
| +5Vsb | 0A | 2A | |

#### 3.1.1 Factory adjustment

+11.9V to +12.1V for +12V

+4.90V to +5.10V for +5Vsb

(All output at 60% rated load, 115Vac)

#### 3.1.2 Peak load max duration

5sec. (duty cycle < 10%, average power < rated power)

### 3.2 Ripple and noise

<50mV for +5Vsb

<100mV for +12V

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

### 3.3 Line regulation

< ±1% ( 90Vac to 264Vac, comparing with 115Vac)

### 3.4 Load regulation

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

## 4.0 GENERAL FEATURES

### 4.1 Efficiency
89% typical

### 4.2 Hold up time
20ms typical

### 4.3 Green power
Pin < 0.1W around (remote off connection, +5Vsb/0A)

Pin < 0.5W (remote off connection, +5Vsb/60mA)

### 4.4 Protection

#### 4.4.1 Over-voltage protection
Trip point : +13V to +16V

Protection mode : Latch-off (main output only)

#### 4.4.2 Short circuit and over load protection
Protection mode (main output): Auto-recovery (main output only)

Protection mode (+5Vsb) , All Auto-recovery

### 4.5 Remote on/off
Active low

## 5.0 ENVIRONMENT SPECIFICATIONS

### 5.1 Operating temperature
-20°C to 70°C (output load derates linearly to 50% from 50°C to 70°C)

### 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
> 140Khrs (based on MIL-HDBK-217F, rated load, 50 °C)

## 6.0 INTERNATIONAL STANDARDS

### 6.1 Safety standards

Label Voltage : 100Vac to 240Vac
UL/CSA/EN 60950-1, 2nd edition

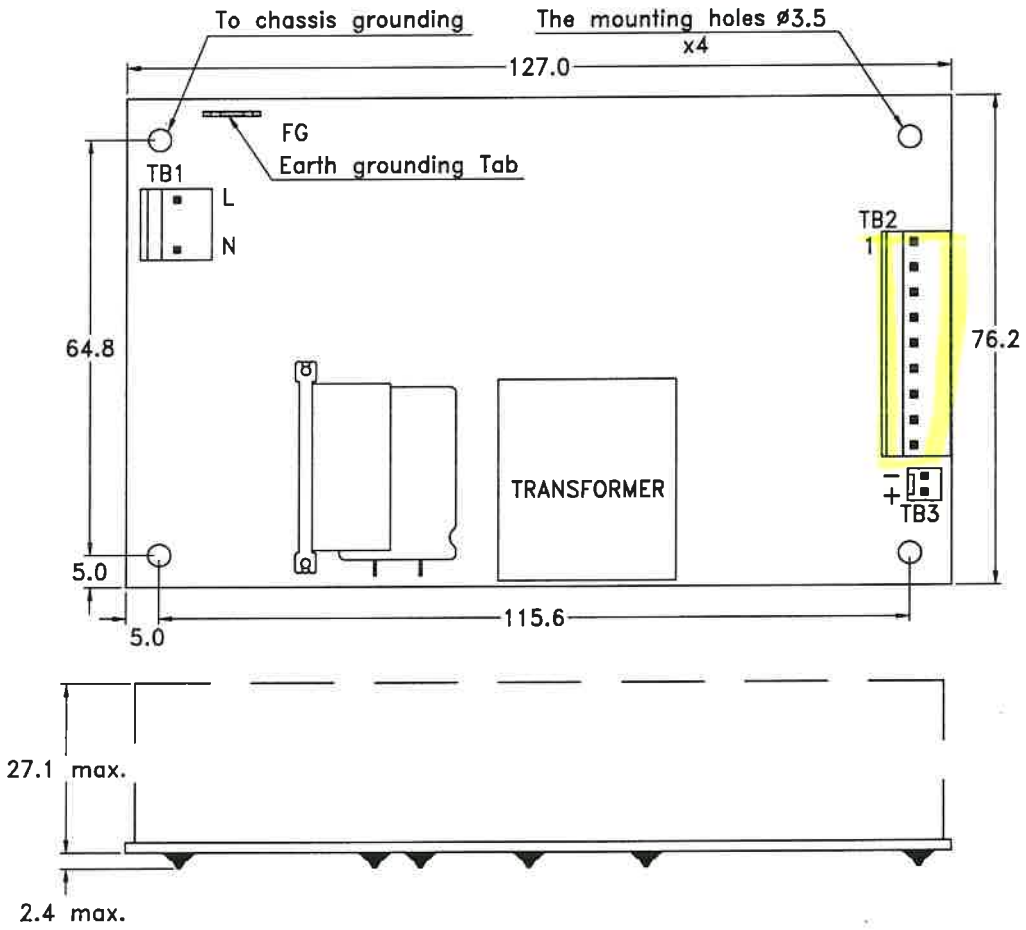
### 6.2 EMI standards

FCC Part 15/EN 55011/EN 55022, level "B"
EN 61000-3-2 ,class D
EN 61000-3-3

### 6.3 EMS standards

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

## 7.0 MECHANICAL SPECIFICATION




### 7.1 Dimensions

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

### 7.2 Connectors

FG -- Earth Grounding : 0.250" x 0.032" tab terminal

TB1-- AC Input : Molex 5277-02A or equivalent, mating with Molex 5239-03 or equivalent

TB2-- DC Output : Molex 5273-09A or equivalent, mating with Molex 5239-09 or equivalent

TB3-- For +12V Fan use only : Molex 5045-02A or equivalent, mating with Molex 5051-02 or equivalent

### 7.3 TB2 pin assignment

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **TB2** Pin | **1** | +5Vsb | **4** | +V | **7** | RTN2 (COM) |
| | **2** | Remote | **5** | +V | **8** | RTN2 (COM) |
| | **3** | RTN1 (COM) | **6** | +V | **9** | RTN2 (COM) |

### 7.4 Packing

Net weight : 277 g approx. / unit

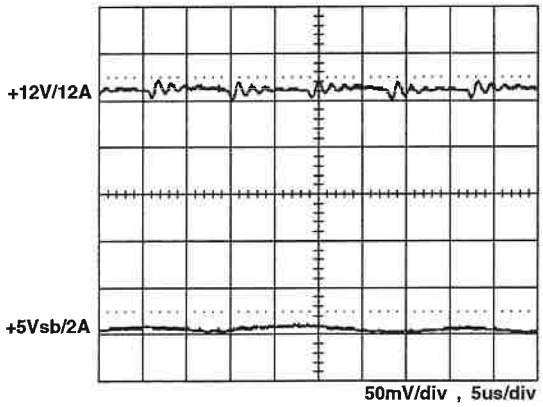
Carton size (mm) : 397(L) x 339 (W) x 327 (H)

Quantity : 48 units / carton

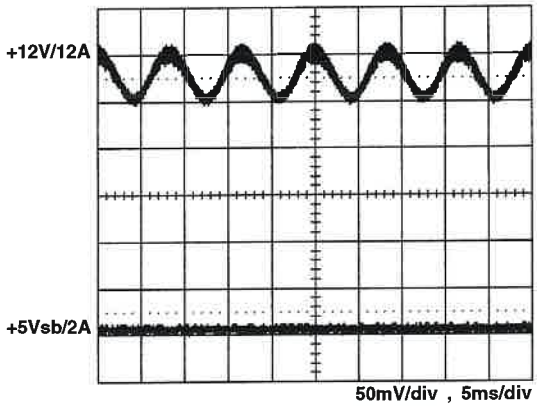
Gross weight : 15.7 kg approx. / carton

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

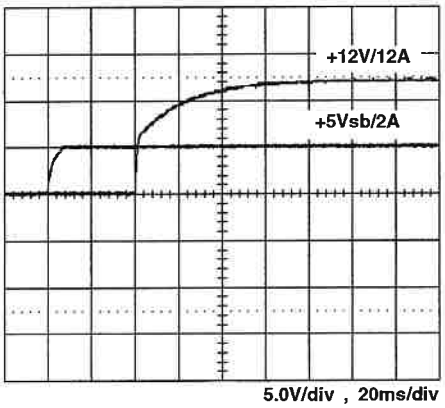
### 8.1 Switching frequency ripple



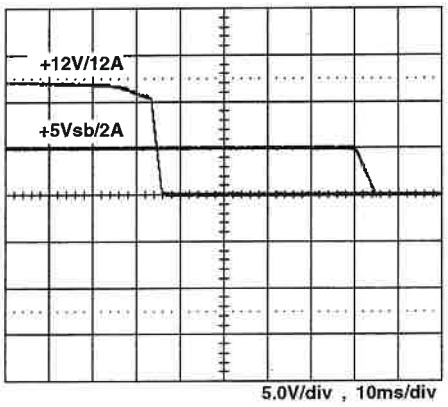

### 8.2 Line frequency ripple



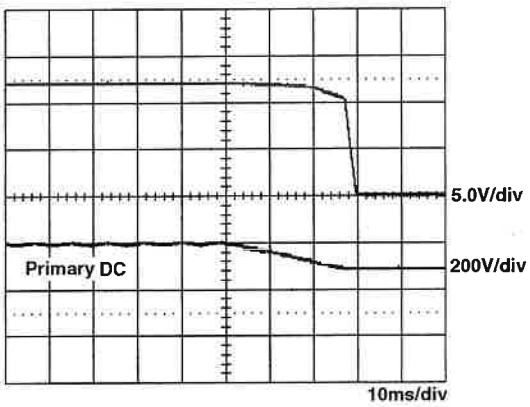

### 8.3 Output turn on wave form



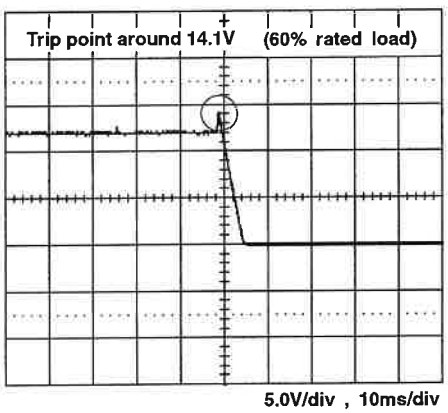

### 8.4 Output turn off wave form



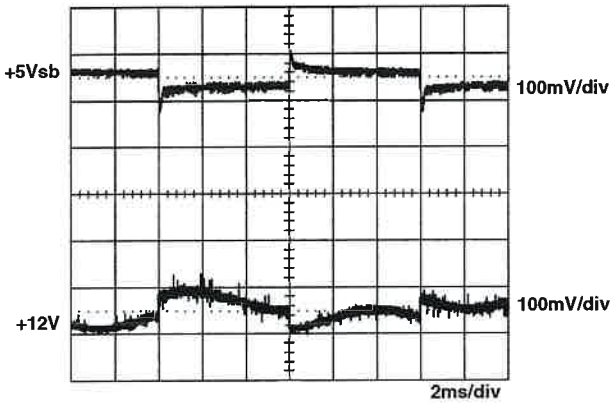

### 8.5 Hold-up time




### 8.6 Over voltage protection

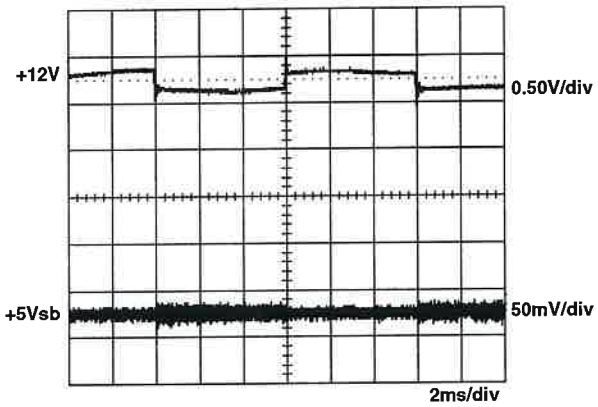


### 8.7 +5Vsb Step response



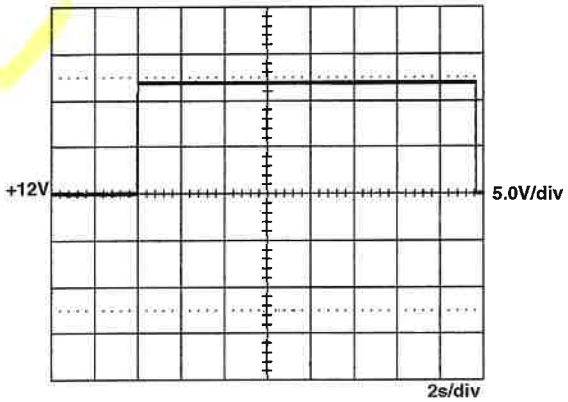

+5V step from 0.4A to 2A
other 60% Rated load

### 8.8 +12V Step response

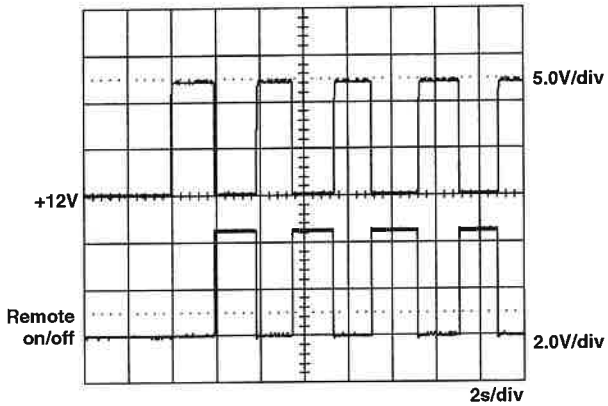



+12V step from 2.4A to 12A
other 60% Rated load

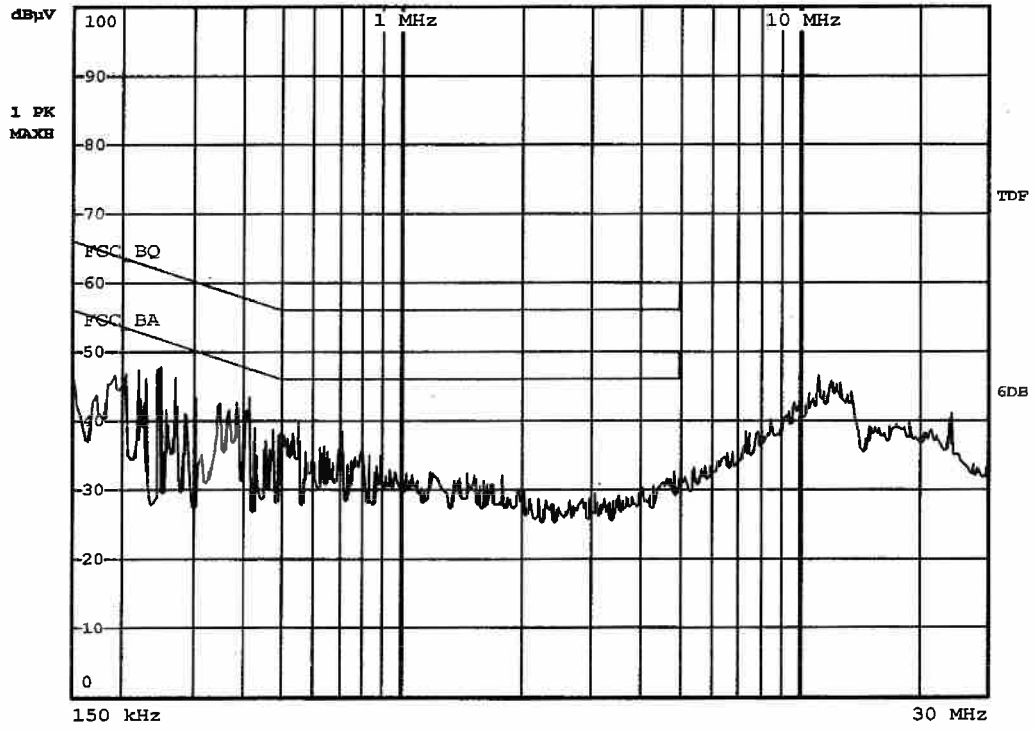
### 8.9 +12V Peak Load




### 8.10 Remote on/off



## 8.10 FCC B performance




## 8.11 CISPR class "B"