

Description:

The SNP-U10 series is a 100 watts convection cooling and in U-shape chassis switching power supply.

With patent granted soft-switching topology, low-profile height fit 1U constraints and high efficiency. It is designed for use in general purpose.

Model available:

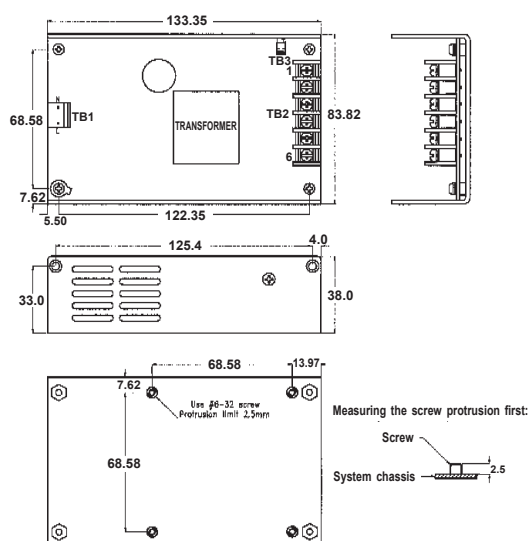
- SNP-U101 for 5V/10A, 12V/4A, -12V/0.3A
- SNP-U106 for 5V/16A, 12V/1A
- SNP-U107 for 12V/8A, 5V/1A
- SNP-U109 for 24V/4A, 5V/1A
- SNP-U10T for 48V/2A, 5V/1A

General Specifications:

| | |
|-----------------------------------|------------------------------------|
| Input voltage | 85 VAC to 264 VAC |
| Input frequency | 47 Hz to 63 Hz |
| Inrush current (cold start) | 30A at 115VAC 60A at 230VAC |
| Efficiency | >80% |
| Hold up time | >20 ms at rated load and 115VAC |
| Over load protection | auto recovery |

| | |
|-------------------------------|---------------------------------|
| Short circuit protection..... | auto recovery |
| Over voltage protection | latch off |
| Operating temperature | 0°C to 50°C |
| Cooling | free air convection |
| Storage temperature | -40°C to +85°C |
| EMI | meet FCC 20780 "B", EN55022 "B" |
| Harmonics..... | EN61000-3-2 class D |
| EMS..... | EN61000-4-2,-3,-4,-5,-6,-11 |

Mechanical Specifications:



Notes:

1. Dimensions shown in mm as left. Tolerance: ± 0.4 mm between mounting holes, and ± 0.8 mm for other dimension.
2. Size:
83.82 X 133.35 X 38 (mm)
3. Packing:
Net weight: 420 g approx. / unit
Gross weight: 12 kg approx. / carton, 24 units / carton
Carton size (mm): 360 (L) x 276 (W) x 379 (H)
4. Connector:
TB1 -- AC input : Molex 5273-X withdraw 2 pins or equivalent
TB2 -- DC output : Terminal blocks

5. DC output Pin Assignment

| Model No. | 1 | 2 | 3 | 4 | 5 | 6 |
|-----------|------|------|-----|-----|------|------|
| SNP-U101 | +5V | +5V | GND | GND | +12V | -12V |
| SNP-U106 | +5V | +5V | GND | GND | +12V | |
| SNP-U107 | +12V | +12V | GND | GND | +5V | |
| SNP-U109 | +24V | +24V | GND | GND | +5V | |
| SNP-U10T | +48V | +48V | GND | GND | +5V | |

Output Specifications:

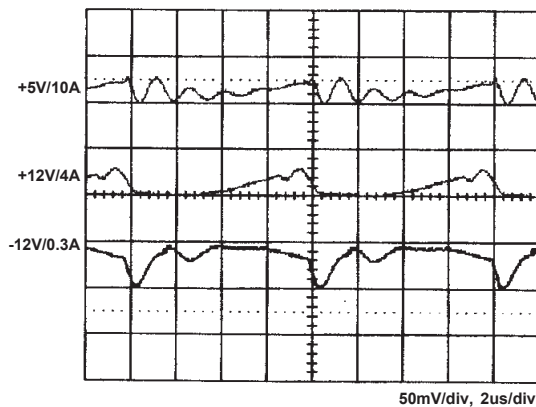
| MODEL NO. | OUTPU RAIL | LOAD | | | VOLTAGE ACCURACY | RIPPLE NOISE | LINE REG. | LOAD REG. |
|-----------|------------|------|-------|------|------------------|--------------|-----------|-----------|
| | | MIN. | RATED | MAX. | | | | |
| SNP-U101 | +5V | 1A | 10A | 16A | +4.9V~+5.1V | 50mVpp | ±1% | ±1% |
| | +12V | 0.5A | 4A | 5A | +11.25V~+12.75V | 100mVpp | ±1% | ±3% |
| | -12V | 0A | 0.3A | 0.5A | -11.0V~-12.0V | 100mVpp | ±1% | ±3% |
| SNP-U106 | +5V | 2A | 16A | 20A | +4.9V~+5.10V | 50mVpp | ±1% | ±1% |
| | +12V | 0A | 1A | 2A | +11.25V~+12.75V | 100mVpp | ±1% | ±1% |
| SNP-U107 | +12V | 0A | 8A | 10A | +11.8V~+12.2V | 100mVpp | ±1% | ±1% |
| | +5V | 0A | 1A | 2A | +4.75V~+5.25V | 50mVpp | ±1% | ±1% |
| SNP-U109 | +24V | 0A | 4A | 5A | +23.76V~+24.24V | 100mVpp | ±1% | ±1% |
| | +5V | 0A | 1A | 2A | +4.75V~+5.25V | 50mVpp | ±1% | ±1% |
| SNP-U10T | +48V | 0A | 2A | 2.3A | +47.6V~+48.4V | 100mVpp | ±1% | ±1% |
| | +5V | 0A | 1A | 2A | +4.75V~+5.25V | 50mVpp | ±1% | ±1% |

Note:

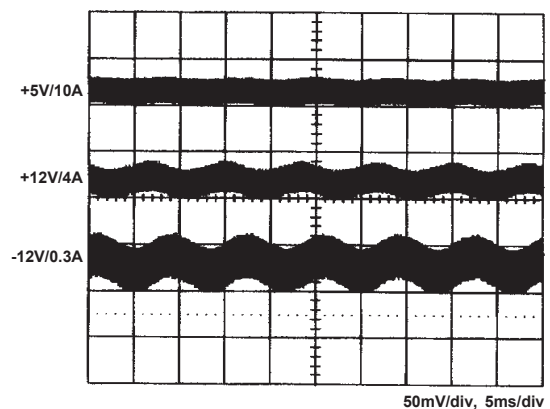
- Each output can provide up to max. load separately when the power supply starts up. To exceed the max. output power continuously is not allowed.
- At factory, in 60% rated load condition, each output is checked to be within voltage accuracy.
- Line regulation is defined by changing ±10% of input voltage 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.

Performance for SNP-U101 (input voltage is 115VAC, unless others specified):

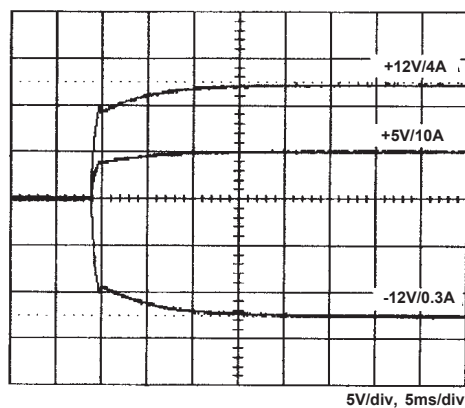
1. Switching frequency ripple



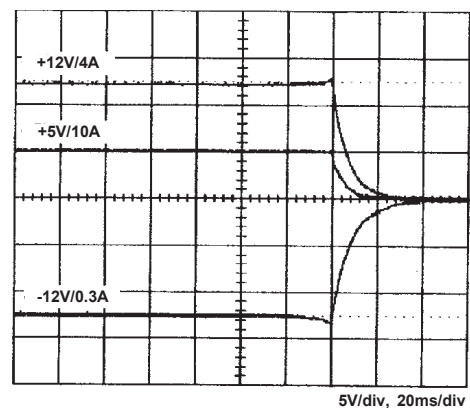
2. Line frequency ripple



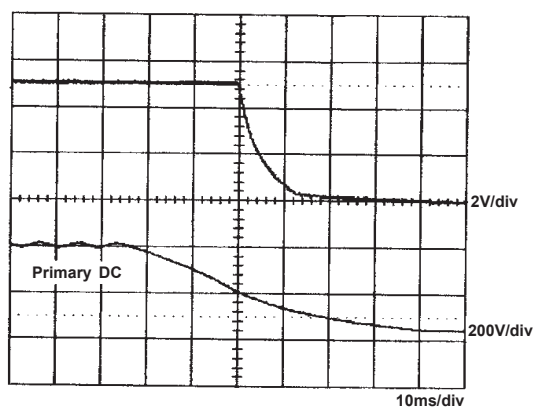
3. Output turn on wave form



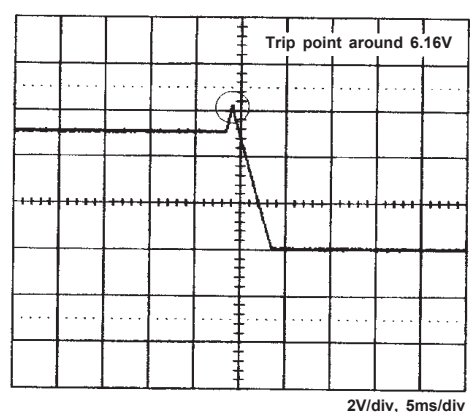
4. Output turn off wave form



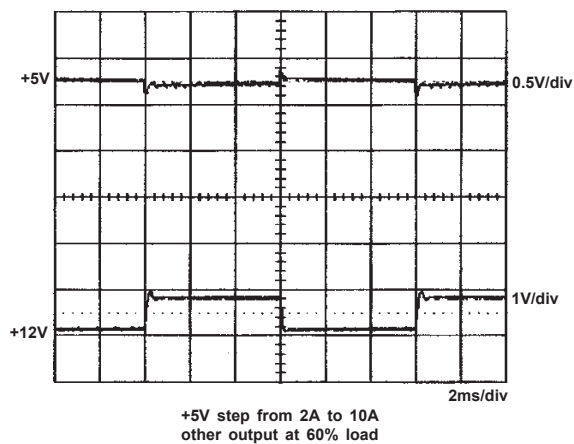
5. Hold-up time



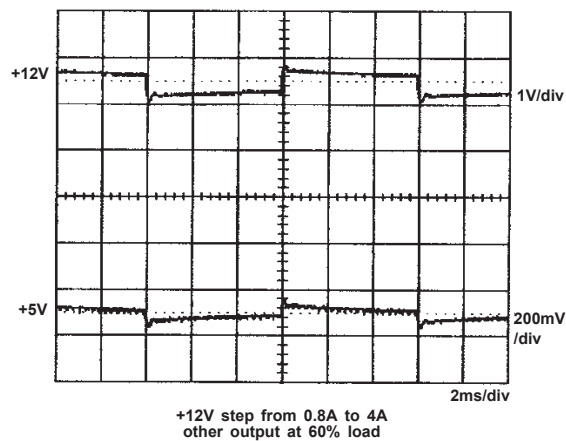
6. Over voltage protection



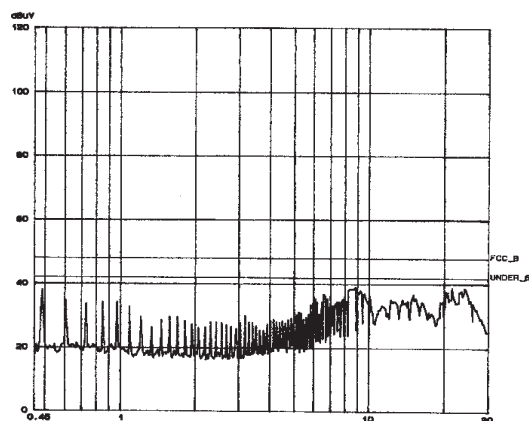
7. +5V step response



8. +12V step response



9. FCC B



10. CISPR 22 B

