

General Purpose (Universal)

PFC + 100W **SNP-Z10 Series**



Features:

- With build in PFC
- Only 1.35 inch height
- 4.8 Watt per cubic inch
- With ITE & Medical safety
- Efficiency between 80% to 90%
- Operation from 0°C to 70°C by convection

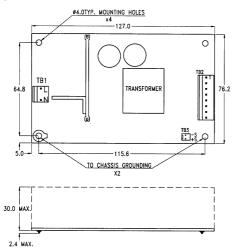
General Specifications:

| Input voltage | 90 VAC to 264 VAC |
|--------------------------|-----------------------------|
| Input frequency | 47 Hz to 63 Hz |
| Inrush current | less than 30A at 115VAC |
| | less than 60A at 230VAC |
| | cold start, 25°C |
| Efficiency | . 80%~90% depends on models |
| Hold up time | 20mS typical |
| | at rated load and 115VAC |
| Over load protection | auto recovery |
| Short circuit protection | auto recovery |
| Over voltage protection | latch off |
| | |

| Max. capacitive load | SNP-Z106 / 30000uF |
|----------------------------|---|
| SNP-Z10 | 7 / 10000uF, SNP-Z109 / 2700uF |
| Remote Sense con | npensates for 0.5V load drop min. |
| Operating temperature (ope | en frame type) 0°C to 70°C |
| | derating: $2.5\% / ^{\circ}\text{C} > 50^{\circ}\text{C}$ |
| Cooling | free air convection for 100W |
| with | 18CFM forced air flow for 130W |
| Storage temperature | 20°C to +85°C |
| EMI | EN55022 "B", FCC "B" |
| Harmonics | EN61000-3-2 |
| EMS | EN61000-4-2,-3,-4,-5,-6,-11 |
| Safety | UL 60950 |
| | CSA 22.2 No. 234, EN60950 |
| | |

Mechanical Specifications:

SNP-Z106



- Dimensions shown in mm as left. Tolerance: +/-0.4mm.
- 2.1 SNP-Z106, Z107, Z108, Z109, Z10T, Z10B 127.0 X 76.2 X 32.4 (mm) 5" X 3" X 1.28"
- 2.2 SNP-Z101, Z103, Z10D 127.0 X 76.2 X 34.4 (mm) 5" X 3" X 1.35"
- Packing:

Net weight: 310 g approx. / unit

Gross weight: 17 kg approx. / carton, 48 units / carton Carton size (mm): 397 (L) x 339 (W) x 327 (H)

4. Connectors:

AC input: Molex 5277-02A or equivalent DC output: Molex 5273 or equivalent Remote Sense: Molex 5045-02A or equivalent

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Output Specifications:

| MODEL NO. | OUTPUT RAIL | MIN. | LOAD RATED | MAX | VOLTAGE ACCURACY | RIPPLE NOISE | LINE REG. | LOAD REG. |
|--------------|----------------|------|---------------|-------|---------------------|-----------------|--------------|--------------|
| SNP-Z106 | +5V | 0A | 20A | 26A | +4.95V~+5.05V | 50mVpp | ±0.5% | ±1% |
| SNP-Z107 | +12V | 0A | 9A | 10.8A | +11.90V~+12.10V | 120mVpp | ±0.5% | ±1% |
| SNP-Z108 | +15V | 0A | 7A | 8.7A | +14.90V~+15.10V | 120mVpp | ±0.5% | ±1% |
| SNP-Z109 | +24V | 0A | 4.5A | 5.4A | +23.80V~+24.20V | 200mVpp | ±0.5% | ±1% |
| SNP-Z10T | +48V | 0A | 2.3A | 2.7A | +47.60V~+48.40V | 200mVpp | ±0.5% | ±1% |
| SNP-Z101 | +5V | 0A | 11.5A | 15A | +4.95V~+5.05V | 50mVpp | ±0.5% | ±1% |
| | +12V | 0A | 3A | 5A | +11.40V~+12.60V | 100mVpp | ±0.5% | ±5% |
| | -12V | 0A | 0.5A | 0.5A | -11.40V~-12.60V | 100mVpp | ±0.5% | ±5% |
| SNP-Z103* | +5V | 0A | 7A | 10A | +4.95V~+5.05V | 50mVpp | ±0.5% | ±1% |
| | +12V | 0A | 8A | 10A | +11.40V~+13.20V | 120mVpp | ±0.5% | ±5% |
| SNP-Z10D | +3.3V | 0A | 10A | 15A | +3.20V~+3.40V | 50mVpp | ±0.5% | ±1% |
| | +5V | 0A | 8A | 10A | +4.75V~+5.25V | 50mVpp | ±0.5% | ±5% |
| | +12V | 0A | 0.5A | 0.5A | +11.40V~+12.60V | 100mVpp | ±0.5% | ±5% |
| SNP-Z10B | +3.3V | 0A | 25A | 30A | +3.20 ~+3.40V | 50mVpp | ±0.5% | ±1% |

^{*} SNP-Z103: Convection cooling: 100W Forced air with 18CFM: 130W

Note:

- 1. The total output current is rated load with free air convection and max. load with 18CFM of forced air flow over the unit.
- 2. At factory, in 60% rated load condition, each output is checked to be within voltage accuracy.
- 3. Line regulation is defined by changing $\pm 10\%$ of input voltage from nominal line at rated load.
- 4. Load regulation is defined by changing ±40% of measured output load from 60% rated load at another output set to 60% rated load
- 5. Ripple & noise is measured by using 15MHz bandwidth limited oscilloscope and terminated each output with a 0.47uF capacitor and a 47u electrolytic capacitor at rated load and nominal line.
- 6. 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.
- 7. Efficiency is measured at rated load and nominal line.

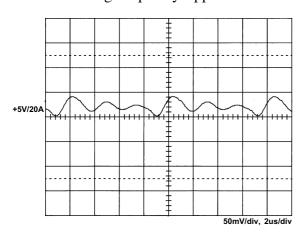
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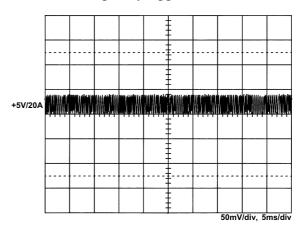
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Performance for SNP-Z106:

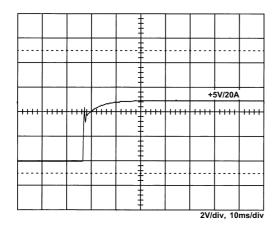
1. Switching frequency ripple



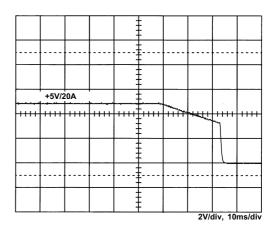
2. Line frequency ripple



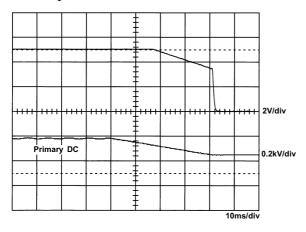
3. Output turn on wave form



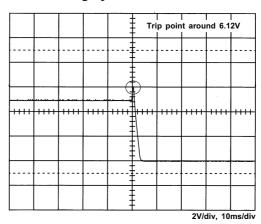
4. Output turn off wave form



5. Hold-up time



6. Over voltage protection



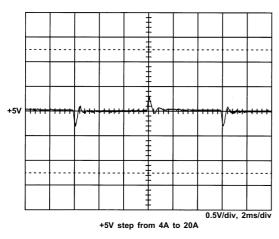
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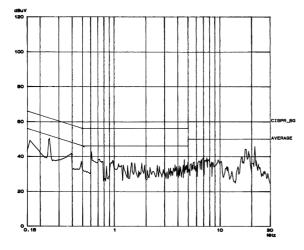
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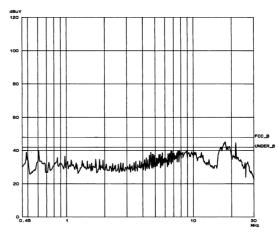
7. +5V step response



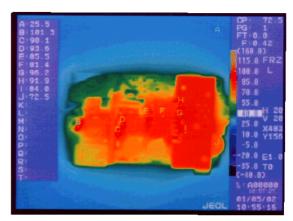
9. EN55022 B



8. FCC B



10. Thermal profile



Test condition:

M/N : SNP-Z106, Input : 104V Output : 5V/20A, Ambient : 25.5°C