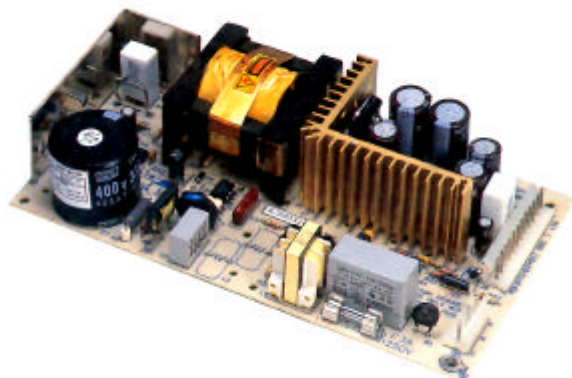




General Purpose (Universal)

100W
SNP-910Series



Description:

SNP-910 series is a 100 watts, universal input switching mode power supply. It is designed to meet UL, CSA, VDE safety regulations and EMI FCC class "B" and Vfg. 243/1991.

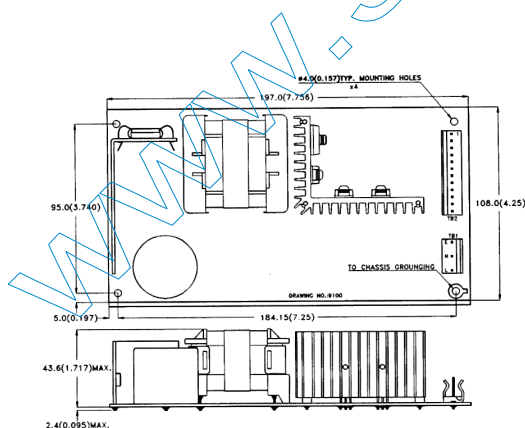
General Specifications:

Input voltage 90VAC to 260VAC
Input frequency 47Hz to 63Hz
Inrush current less than 30A at 115VAC
(Cold start) less than 60A at 230VAC
Outputs see output table
Efficiency higher than 70%
at rated load and 115VAC
Hold up time longer than 16ms
at rated load and 115VAC
Over load protection latch off

Short circuit protection latch off
Over voltage protection latch off
Operating temperature (open frame type) 0 to 50°C
(enclosed type) 0 to 40°C
Cooling Free air convection
Storage temperature -40°C to +85°C
EMI conduction standard FCC class "B"
Vfg 243/1991
Safety UL 1950 D3
CSA 22.2 No.234
VDE EN60 950

Mechanical Specifications:

SNP-9100



Notes:

- Dimensions shown in mm (inch) as above.
Tolerance specified is ± 0.4 mm.
- PCB size: 108.0 X 197.0 mm
4.25" X 7.756"
- Mounting holes: 95.0 X 184.15 mm
3.74" X 7.25"
- Connectors
AC input: Molex 5273-05A withdraw 2 pins or equivalent for all models
DC output:
a) Molex 5273-04A or equivalent for SNP-9103
b) Molex 5273-10A or equivalent for SNP-9102, SNP-9107, SNP-9109
c) Molex 5273-12A or equivalent for SNP-9100, SNP-9105-6, SNP-9106
LED indicator: Molex 5045-02A or equivalent for SNP-9103
Fan: Molex 5045-02A or equivalent for SNP-9103

DC output pin assignment:

PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12
SNP-9100	+5V	+5V	+5V	GND	GND	GND	+12V	+12V	-12V	GND	-5V	P.G.
SNP-9102	+5V	+5V	+5V	GND	GND	GND	GND	GND	+12V	-5V		
SNP-9103	+12V	GND	GND	+5V								
SNP-9105-6	+5V	+5V	+5V	GND	GND	GND	+24V	+24V	+12V	GND	-12V	P.G.
SNP-9106	+5V	+5V	+5V	+5V	+5V	GND	GND	GND	GND	GND	NC	P.G.
SNP-9107	+12V	+12V	+12V	+12V	GND	GND	GND	GND	+5V	P.G.		
SNP-9109	+24V	+24V	+24V	+24V	GND	GND	GND	GND	+5V	P.G.		



General Purpose (Universal)

100W
SNP-910 Series

Output Specifications:

MODEL NO.	OUTPUT RAIL	LOAD			VOLTAGE ACCURACY	RIPPLE NOISE	LINE REG.	LOAD REG.
		MIN.	RATED	PEAK				
SNP-9100	+5V	0A	10A	8A	+4.95~+5.05V	1%	±1%	±1%
	+12V	0A	3.5A		+11.4~+12.6V	1%	±1%	±3%
	-12V	0A	0.5A		-11.4~-12.6V	1%	±1%	±3%
	-5V	0A	0.5A		-4.75~-5.25V	1%	±1%	±3%
SNP-9102	+5V	0A	15A	20A	+4.95~+5.05V	1%	±1%	±1%
	+12V	0A	2A	3A	+11.4~+12.6V	1%	±2%	±5%
	-5V	0A	2A	3A	-4.75~-5.25V	2%	±2%	±5%
SNP-9103	+5V	0A	4A	6A	+4.95~+5.05V	1%	±1%	±1%
	+12V	0A	7A	15A	+11.88~+12.12V	0.5%	±1%	±1%
SNP-9105-6	+5V	0A	5A	8A	+4.95~+5.05V	1%	±1%	±1%
	+24V	0A	2A	6A	+22.8~+25.2V	1%	±1%	±5%
	+12V	0A	2A	0.3A	+11.4~+12.6V	1%	±1%	±5%
	-12V	0A	0.3A		-11.4~-12.6V	1%	±1%	±5%
SNP-9106	+5V	0A	20A		+4.75~+5.25V	1%	±1%	±1%
SNP-9107	+5V	0A	1A	15A	+4.75~+5.25V	1%	±1%	±3%
	+12V	0A	9A		+11.88~+12.12V	1%	±1%	±3%
SNP-9109	+5V	0A	1A	8A	+4.75~+5.25V	1%	±1%	±3%
	+24V	0A	4.5A		+23.75~+24.24V	1%	±1%	±3%

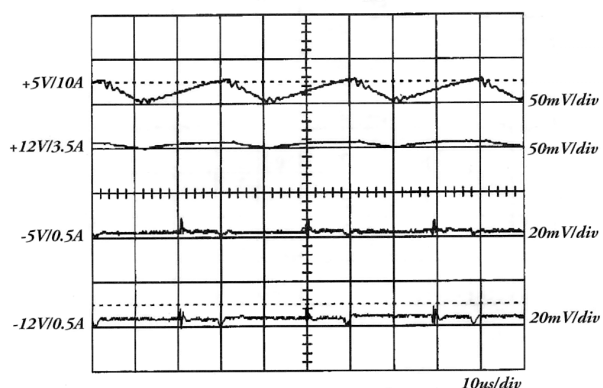
Notes:

- Each output can provide up to peak load temporarily. Continuous staying in more than rated load is not allowed.
- At factory, all outputs in 60% rated load condition, each output is checked to be within the accuracy range while the main output is setting to within the specified accuracy range at rated load.
- Line regulation is defined by changing $\pm 10\%$ of input voltage from nominal line at rated load.
- Load regulation is defined by changing $\pm 40\%$ 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 $0.47\mu\text{F}$ 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 +5V output drop down to 4.75V at rated load and nominal line.
- Rated load is maximum loading for flat mounting and free air convection cooling. 20 cfm load is maximum loading for flat mounting and 20 cubic feet per minute air flow go through the power supply unit.
- Performance of turn on peak power is shown in figure 7, page 4-4. Rising edge means power on, falling edge means over load protection happened.

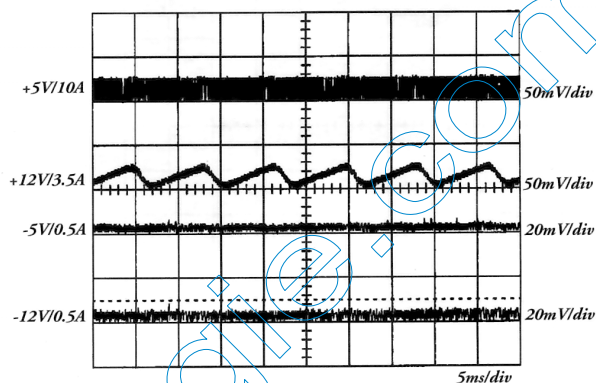


Performance for SNP-9100:

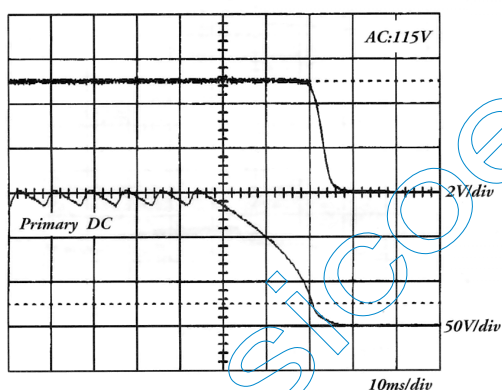
1. Switching frequency ripple



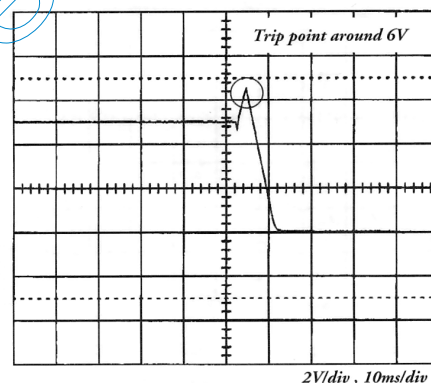
2. Line frequency ripple



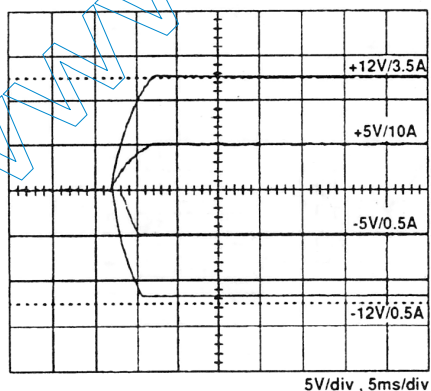
3. Hold-up time



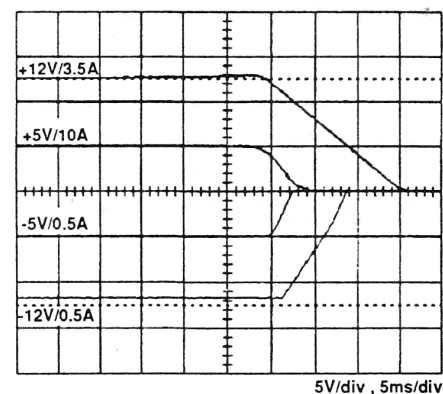
4. Over voltage protection



5. Output turn on wave form



6. Output turn off wave form

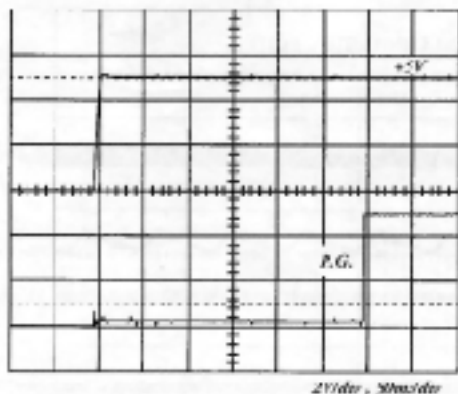




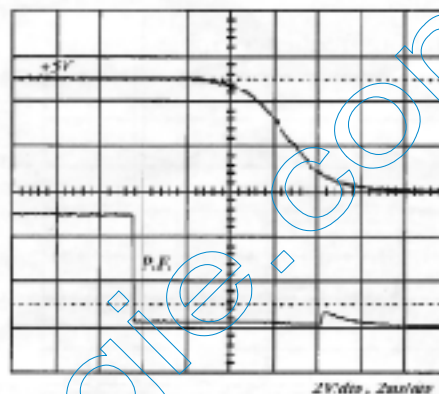
General Purpose (Universal)

100W
SNP-910 Series

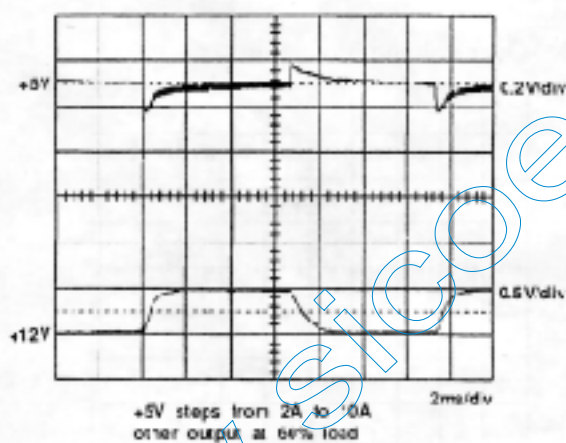
7. Power good signal



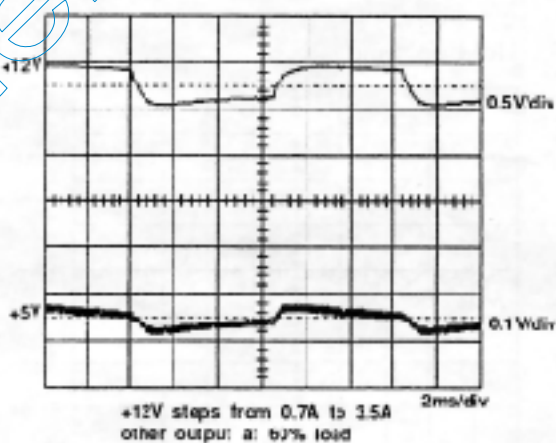
8. Power fail signal



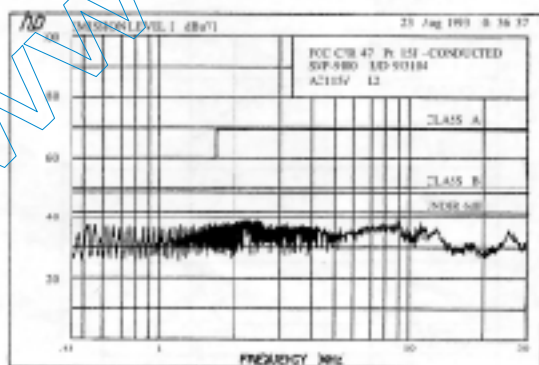
9. +5V step response



10. +12V step response



11. FCC B



12. VFG 243

