



### Features:

- With built in PFC
- 85% ~ 90% efficiency
- 60% power boost ability
- 23.5V to 29V adjustable output range
- Can be paralleled for SNP-D489
- Patented Ring-Free ZVS & Active PFC

### Model available:

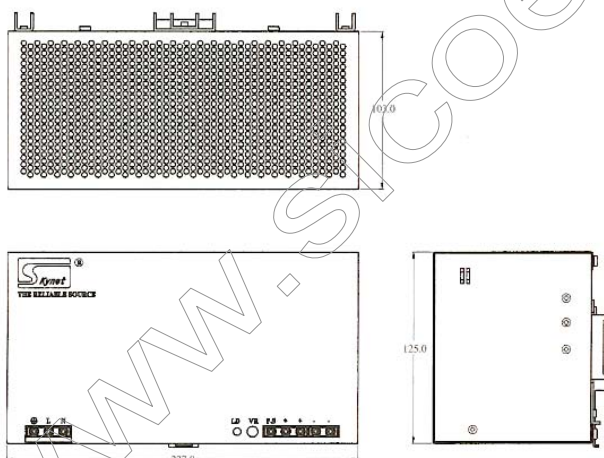
- SNP-D129 • single phase • universal • 24V/5A
- SNP-D249 • single phase • universal • 24V/10A
- SNP-D489 • single phase • universal • 24V/20A

### General Specifications:

Input voltage .....	90VAC to 264VAC
Input current .....	<10A@115VAC, <5A @230VAC
Input frequency .....	47Hz to 63Hz
Inrush current (cold start) .....	< 30A @ 115VAC < 60A@ 230VAC
Outputs .....	see output table
Efficiency .....	90% typical at 230VAC
Hold up time .....	longer than 20ms at 115VAC input
Over voltage protection .....	Latch off

Short circuit protection .....	Auto-recovery
Over load protection .....	Auto-recovery
Operating temperature .....	-10°C to +70°C (derating : typ. 12W/K > 50°C@115VAC, > 60°C@230VAC)
Cooling .....	Free air convection
Storage temperature .....	-25°C to +85°C
EMI standard .....	FCC docket 20780 curve "B" EN55022 "B", EN61000-3-2 Class D
Safety .....	UL 1950, UL 508 CSA 22.2 No. 950-M90, EN 60 950

### Mechanical Specifications:



#### NOTE:

1. Dimensions shown in mm (inch) as left. Tolerance specified is  $\pm 0.4$  mm.
2. Size:  
237 x 125 x 103 (mm)
3. Connectors:  
AC & DC Connector : Terminal blocks  
(suitable wire 26~10AWG)
4. Power on indicator:  
Green light on the panel
5. Hook:  
For standard symmetrical 35mm DIN-rail

**Output Specifications:**

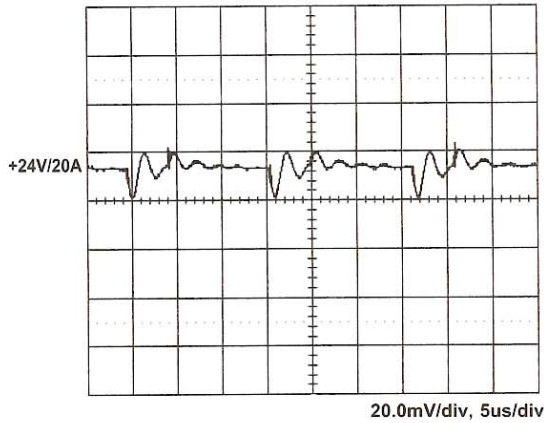
MODEL NO.	OUTPUT RAIL	LOAD			VOLTAGE ACCURACY	RIPPLE NOISE	LINE REG.	LOAD REG.
		MIN.	RATED	PEAK				
SNP-D489	+24V	0A	20A	25A	±2%	<50mVpp	±1%	±1%

**Notes:**

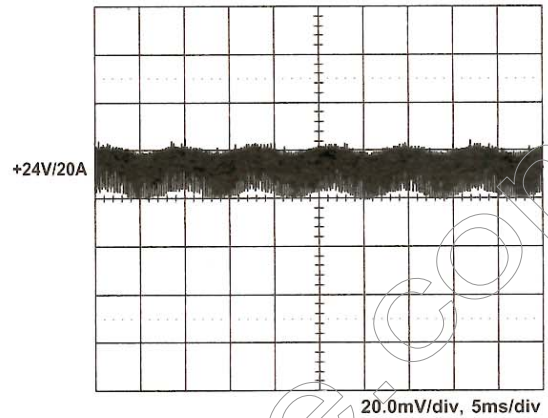
1. Each output can deliver peak load for max. 1 min. at 45°C or even continuous with forced cooling.
2. At factory, in 60% rated load condition, the output is checked to be within the accuracy range while the main output is set within the specified accuracy range at rated load.
3. Line regulation is defined by changing ±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.
5. Ripple & noise is measured by using 15MHz bandwidth limited oscilloscope and terminated the output with a 0.47uF capacitor at rated load and nominal line.
6. Hold up time is measured from the end of the last charging pulse to the time when the main output drop down to regulation limit at rated load and nominal line.
7. Efficiency is measured at rated load and nominal line.

**Performance:**

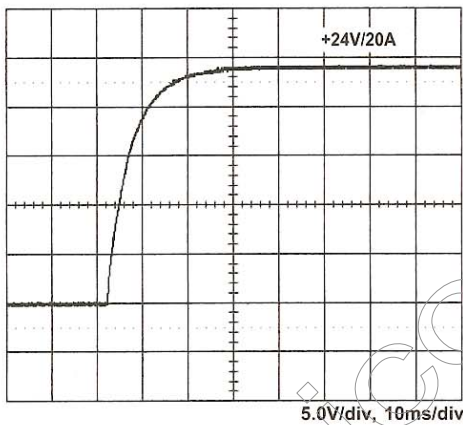
1. Switching frequency ripple



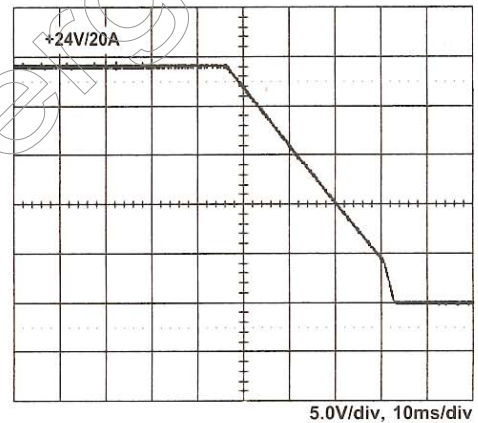
2. Line frequency ripple



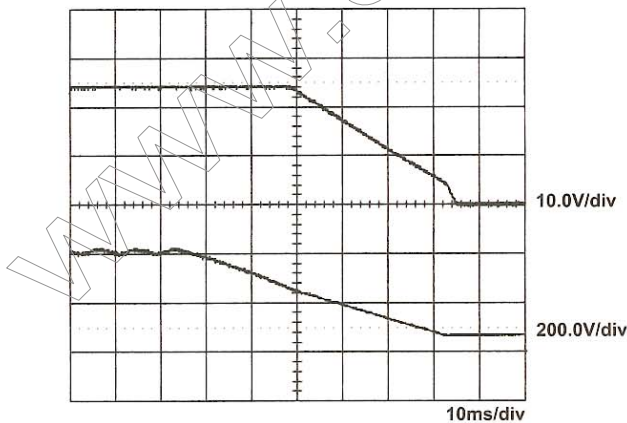
3. Output turn on wave form



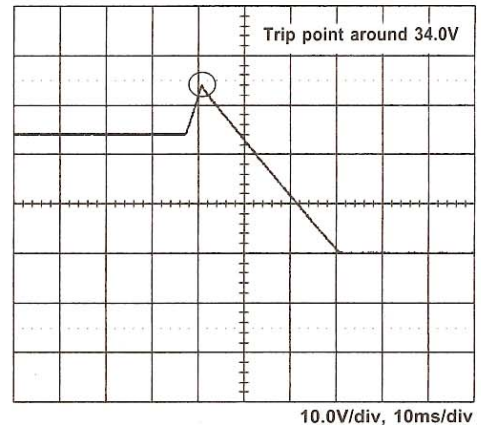
4. Output turn off wave form



5. Hold-up time



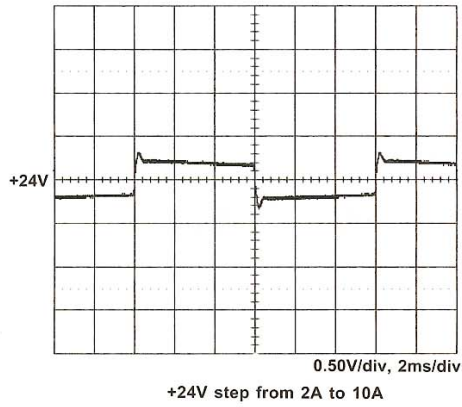
6. Over voltage protection



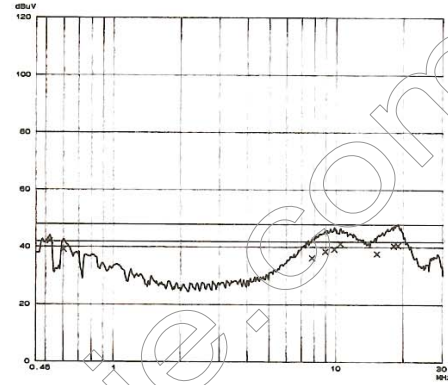
-Josephine-



7. +24V step response



8. FCC B



9. EN 55022 B

