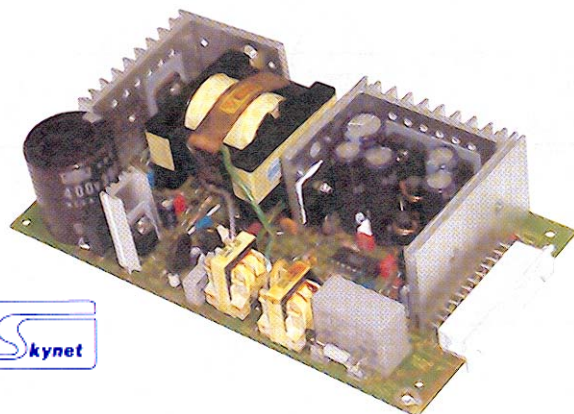




RAID System (Universal)

(Hot Swap) **150W**
SNP-R153
SNP-R153-K



Description:

The redundancy family with output power from 80W to 450W, meets the needs of Disk Array, RAID system and Sub-system applications.

SNP-R153 / SNP-R153-K features hot-swap capability and current sharing function for redundant operation, the high peak current is suitable for motor starting.

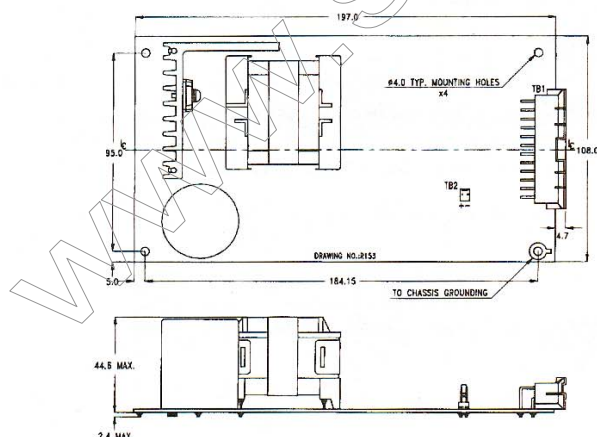
General Specifications:

Input voltage 85VAC to 264VAC
Input frequency 47Hz to 63Hz
Input current 4A at 115VAC, 2A at 230VAC
Inrush current less than 2A at 115VAC
cold start, 25°C
Outputs see output table
Efficiency 70% typical
at nominal line and rated load
Hold up time > 16ms
at nominal line and rated load

Over load protection latch off
Over current protection latch off
Short circuit protection latch off
Power sharing active sharing, N+1 function
Power OK open collector, active low
Operating temperature (open frame type) 0°C to 40°C
Cooling free air convection
Storage temperature - 40°C to +75°C
EMI FCC 20780 "B", Vfg 243 "B"
Safety meet UL 1950
CSA 22.2 No.234
EN60 950

Mechanical Specifications:

SNP-R153



Notes:

- Dimensions shown in mm as left. Tolerance specified is ± 0.4 mm.
- Size:
108 x 197 x 47 (mm)
- Connectors
a) AC input & DC output : Molex A-42404-24 or equivalent
b) LED indicator : Molex 5045-02A or equivalent
- Pin assignment
For SNP-R153:

Pin		Pin	
1	+5V	13	+5V
2	GND	14	GND
3	GND	15	GND
4	+12V	16	+12V
5	+12V	17	+12V
6	+12V	18	+12V
7	N.C.	19	Power share
8	Power ok	20	N.C.
9	+5V Remote (-)	21	+5V Remote (-)
10	F.G. (Earth)	22	F.G. (Earth)
11	N.C.	23	N.C.
12	AC L	24	AC N

For SNP-R153-K:

Pin		Pin	
1	+5V	13	+5V
2	+5V	14	+5V
3	GND	15	GND
4	GND	16	GND
5	+12V	17	+12V
6	+12V	18	+12V
7	Power share	19	Power share
8	LED (+5V)	20	FAN (+12V)
9	+5V Remote (-)	21	+5V Remote (-)
10	F.G. (Earth)	22	F.G. (Earth)
11	N.C.	23	N.C.
12	AC L	24	AC N



RAID System (Universal)

(Hot Swap) **150W**
SNP-R153
SNP-R153-K

Output Specifications:

MODEL NO.	OUTPUT RAIL	LOAD			VOLTAGE ACCURACY	RIPPLE NOISE	LINE REG.	LOAD REG.
		MIN.	RATED	PEAK				
SNP-R153	+5V	0A	6A	8A	+4.95V~+5.1V	50mVpp	±1%	±2%
	+12V	0A	10A	20A	+118V~+12.6V	120mVpp	±1%	±5%
SNP-R153-K	+5V	0A	11A	16A	+4.95V~+5.1V	50mVpp	±1%	±2%
	+12V	0A	8A	10A	+11.8V~+12.6V	120mVpp	±1%	±5%

* SNP-R153 can provide 12V/20A longer than 10 seconds.

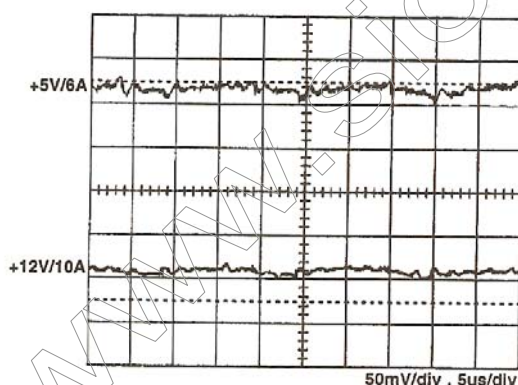
* SNP-R153-K can provide 200W longer than 10 seconds.

Notes:

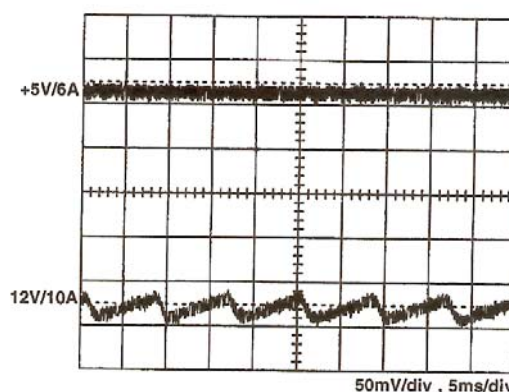
- Each output can provide up to peak load temporarily. Continuous staying in more than rated load is not allowed. The SNP-R153 can provide peak power 200W (12V/20A) longer than 10 seconds.
- At factory, all outputs in 60% rated load condition, each output is checked to be within the accuracy range while the main output is setting to within the specified accuracy range at rated load.
- Line regulation is defined by changing ±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 0.47μF 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.
- Efficiency is measured at rated load and nominal line.
- The inlet filter to be used when operate on parallel condition. (Filter recommend: Delta 08KEEG3HA or 10DEEQ3R)

Performance for SNP-R153:

1. Switching frequency ripple



2. Line frequency ripple

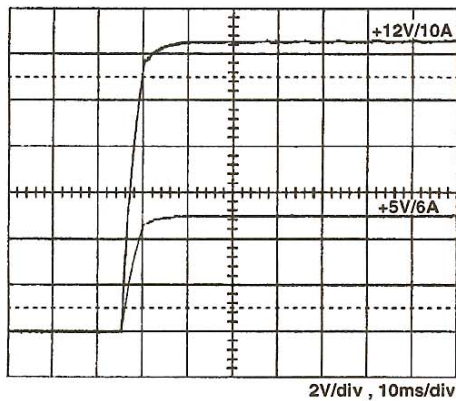




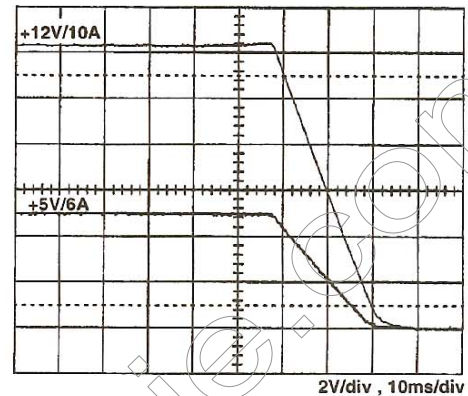
RAID System (Universal)

(Hot Swap) 150W
SNP-R153
SNP-R153-K

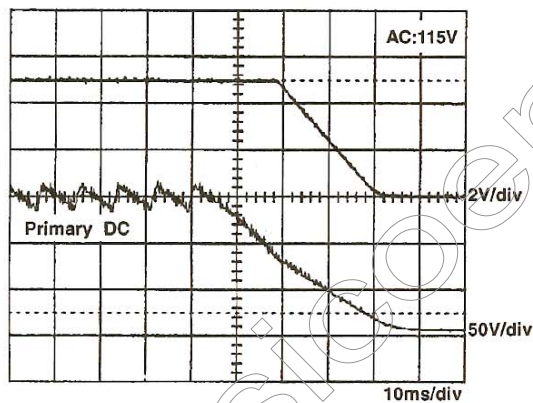
3. Output turn on wave form



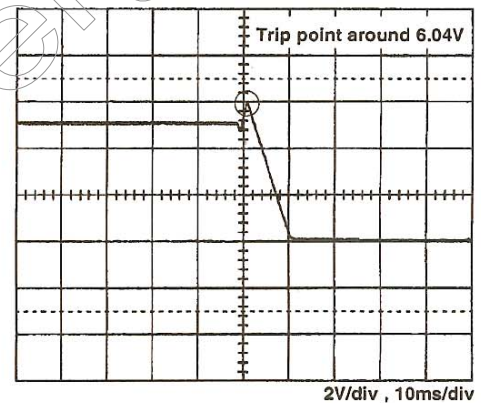
4. Output turn off wave form



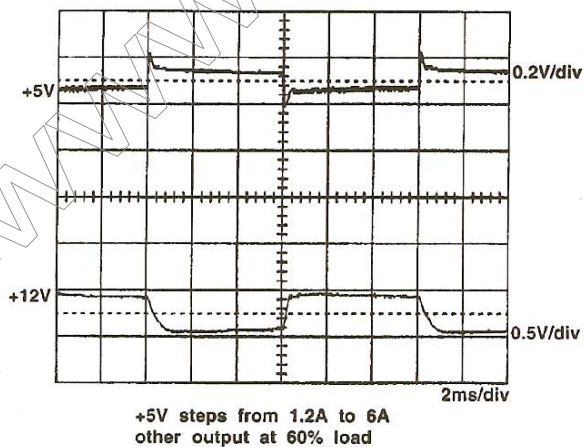
5. Hold-up time



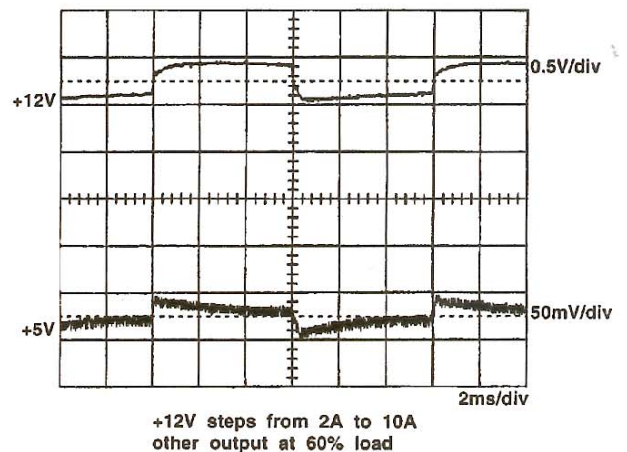
6. Over voltage protection



7. +5V step response



8. +12V step response



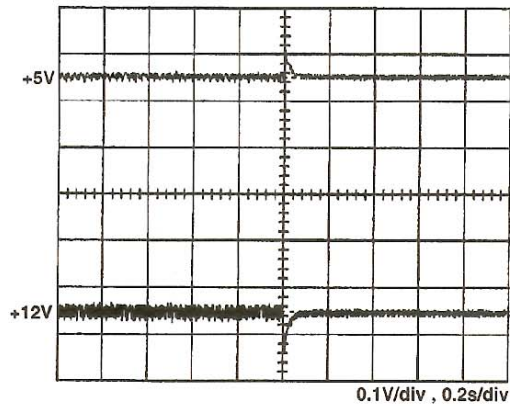
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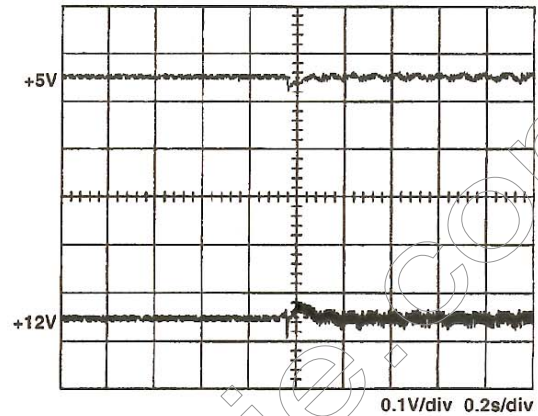
RAID System (Universal)

(Hot Swap) 150W
SNP-R153
SNP-R153-K

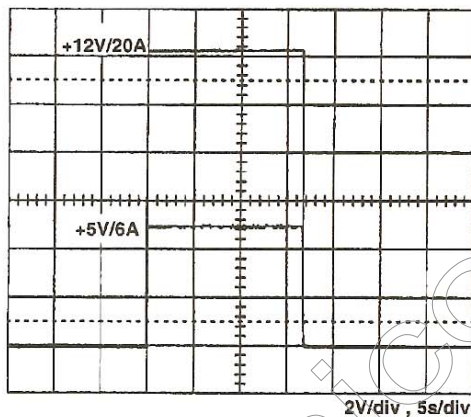
9. Power redundancy (1 --> 2)



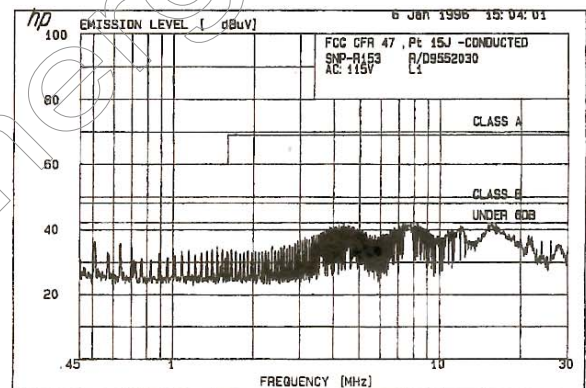
10. Power redundancy (2 --> 1)



11. Peak load



12. FCC B



13. Vfg 243

