

The Switcher Experts

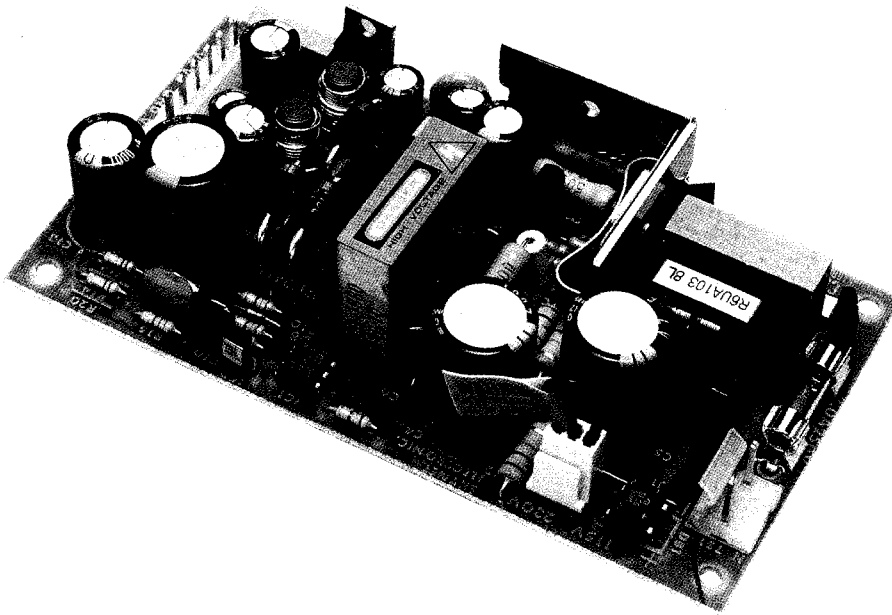
30 W
SNP-188 SERIES

FEATURES

- UL FILE NO. E 104272
- CSA FILE NO. LR 57450
- COST EFFECTIVE DESIGN
- FCC CONDUCTED B LEVEL

APPLICATIONS

- TERMINALS
- INDUSTRIAL CONTROL
- EXTERNAL FLOPPY SYSTEMS
- EXTERNAL HARD DISK SYSTEMS
- EXTERNAL TAPE BACK-UP SYSTEMS



DESCRIPTION

SNP-188 series is a 30 Watts flyback type free-running switching power supply. The AC input range of 115VAC or 230VAC is selected by a jumper on the PCB. All models in this series have overvoltage crowbar protection on output #1, and power foldback protection on all outputs.

SNP-188 series is designed to comply with UL and CSA safety regulations only. The input line filter is provided to keep the noise under 6 dB of FCC class B conducted limited.

Universal version of SNP-188 series is SNP-303 series.

VDE version of SNP-188 series is SNP-288 series.



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SNP-188 SERIES

GENERAL SPECIFICATIONS

Input voltage 100VAC to 130VAC
 200VAC to 260VAC
 Input frequency 47Hz to 63Hz
 Inrush current(Cold)....15A at 115VAC
 30A at 230VAC
 Operating temperature 0 to 50oC
 Storage temperature ..-20oC to +85°C
 Cooling Free air convection
 Efficiency 65% typical
 Holdup time15ms

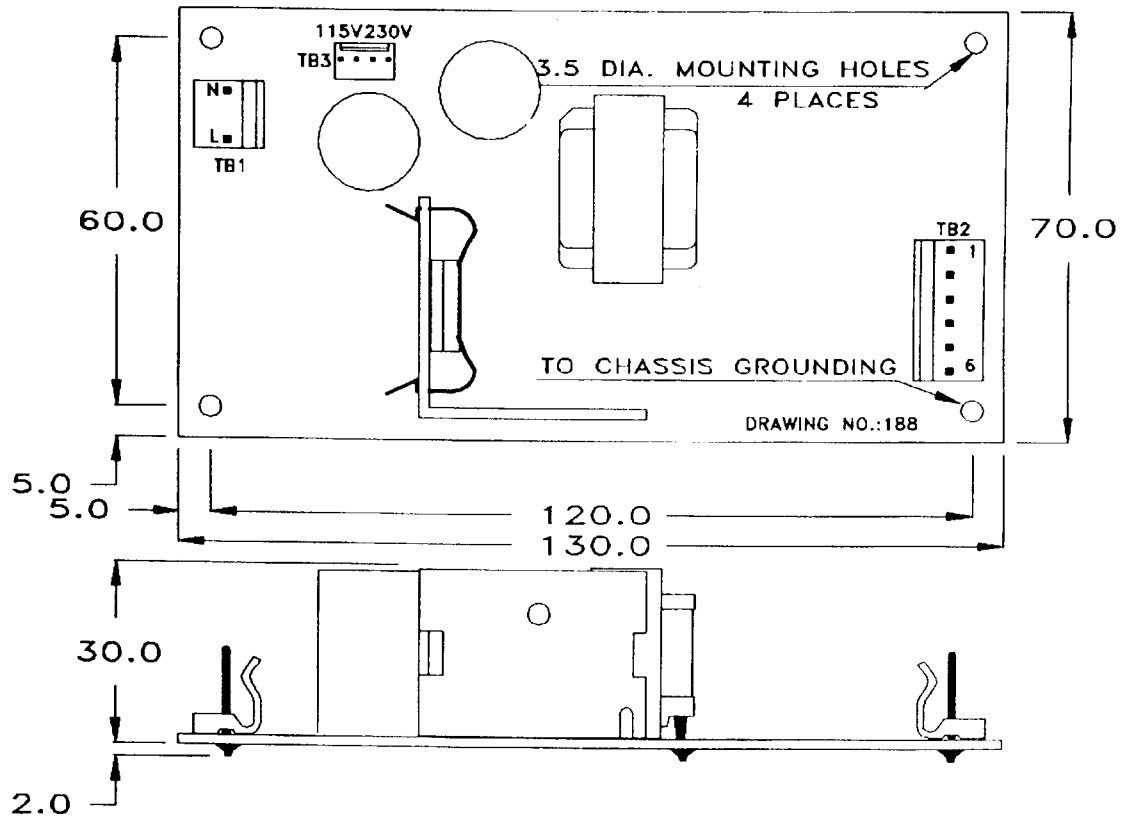
Overvoltage type Crowbar
 Trip point 6.2V +/- 0.4V
 Or rated output +3V
 Overload protection Foldback
 at 130% rated load
 Switching frequency >20KHz
 Safety comply with
 UL 478, 1012,1950
 CSA 22.2 NO. 220
 EMI Meet FCC class "B"

OUTPUT SPECIFICATIONS

MODEL NO.	OUTPUT VOLTAGE	LOAD			TOLERANCE +/-	RIPPLE NOISE	LINE REG.	LOAD REG.
		MIN.	RATED	MAX.				
SNP-1880	+5V	.2A	3A	4A	1%	50mV	0.5%	1.0%
	+12V	0A	1A	1.5A	5%	100mV	1.0%	5.0%
	-12V	0A	0.2A	0.5A	10%	100mV	2.0%	8.0%
SNP-1881	+5V	.2A	3A	4A	1%	50mV	0.5%	1.0%
	+12V	0A	1A	1.5A	5%	100mV	1.0%	5.0%
	-5V	0A	0.3A	0.5A	10%	100mV	2.0%	8.0%
SNP-1882	+5V	.2A	6A		1%	50mV	0.5%	1.0%
SNP-1883	+12V	.1A	2.5A		1%	100mV	0.5%	1.0%
SNP-1885	+5V	.2A	3.5A	4A	1%	50mV	0.5%	1.0%
	+24V	0A	0.5A	0.7A	5%	100mA	1.0%	5.0%
SNP-1886	+5V	.2A	2A	3A	1%	50mV	0.5%	1.0%
	+12V	.1A	1.8A	2A	5%	100mV	1.0%	5.0%
SNP-1888	+15V	.1A	1A	1.2A	1%	100mV	1.0%	1.0%
	-15V	.1A	1A	1.2A	5%	100mV	1.0%	5.0%
SNP-1889	+24V	.1A	1.25A		1%	100mV	0.5%	1.0%

- Note :**
1. Each output can provide up to maximum load, but total load can not exceed 30 Watts continuously.
 2. The main output of all models is adjusted to +/- 1% at 60% rated load at factory.
 3. Tolerance is measured with all outputs at 60% rated load.
 4. Line regulation is measured from low line to high line at rated load.
 5. Load regulation is measured by +/- 40% load change from 60% rated load, and all other outputs are kept at 60% rated load.
 6. Ripple & noise is measured by using a 12" twisted wire terminated with a 47uF capacitor.
 7. Efficiency is measured at rated load.
 8. All parameters except line regulation are specified at 115/230 VAC input, rated load, 25°C ambient.

MECHANICAL SPECIFICATIONS



Note:

1. Dimensions shown in : mm (+0.4mm)
2. PCB size: 70mm X130mm
3. Mounting holes : 60mm X 120mm
4. Weight : 200 g Approx.
5. Connectors :
 - TB1- AC INPUT:
Molex 5273-3 withdraw center pin or equivalent.
 - TB2- DC OUTPUT:
Molex 5273-6 or equivalent for multi-output.
Molex 5273-4 or equivalent for single output.

Pin Assignment:

MODEL \ PIN	1	2	3	4	5	6
SNP-1880	5V	5V	GND	GND	-12V	12V
SNP-1881	5V	5V	GND	GND	-5V	12V
SNP-1882	5V	5V	GND	GND		
SNP-1883	12V	12V	GND	GND		
SNP-1885	5V	5V	GND	GND	24V	24V
SNP-1886	5V	5V	GND	GND	12V	12V
SNP-1888	15V	15V	GND	GND	-15V	-15V
SNP-1889	24V	24V	GND	GND		

ELECTRICAL PERFORMANCE

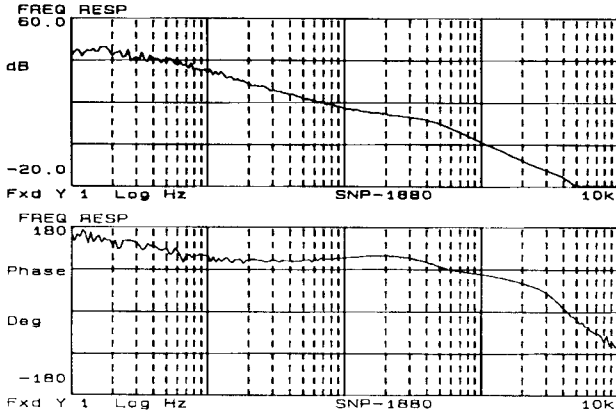


Fig.1 BODE DIAGRAM

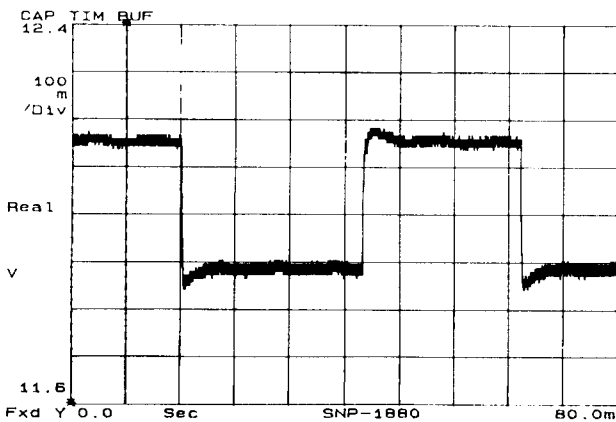
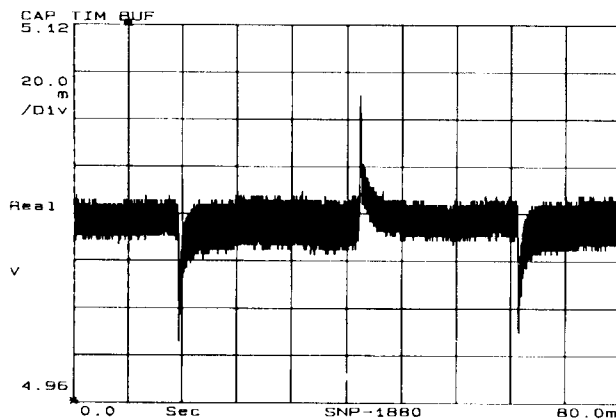


Fig.2 STEP RESPONSE

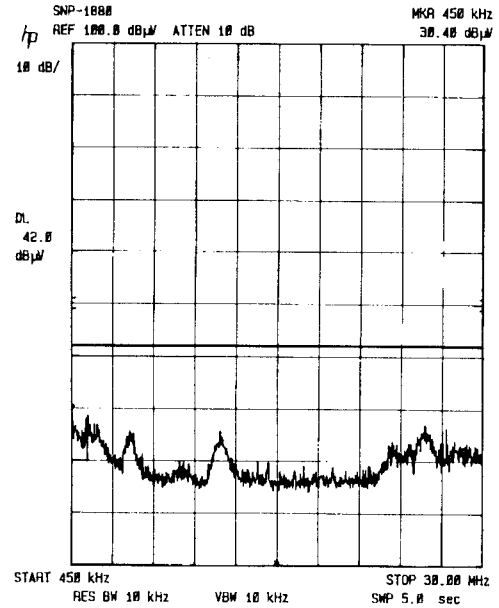


Fig.3 CONDUCTED NOISE

Note:

Fig.1 Show the stability of the circuitry by Bode Diagram.

Fig.2 Show the stability of the main loop (+5v) by changing the load of major aux. output from 20% to 100%.

Fig.3 Show the conducted noise level by 100% resistance loading.