

The Switcher Experts

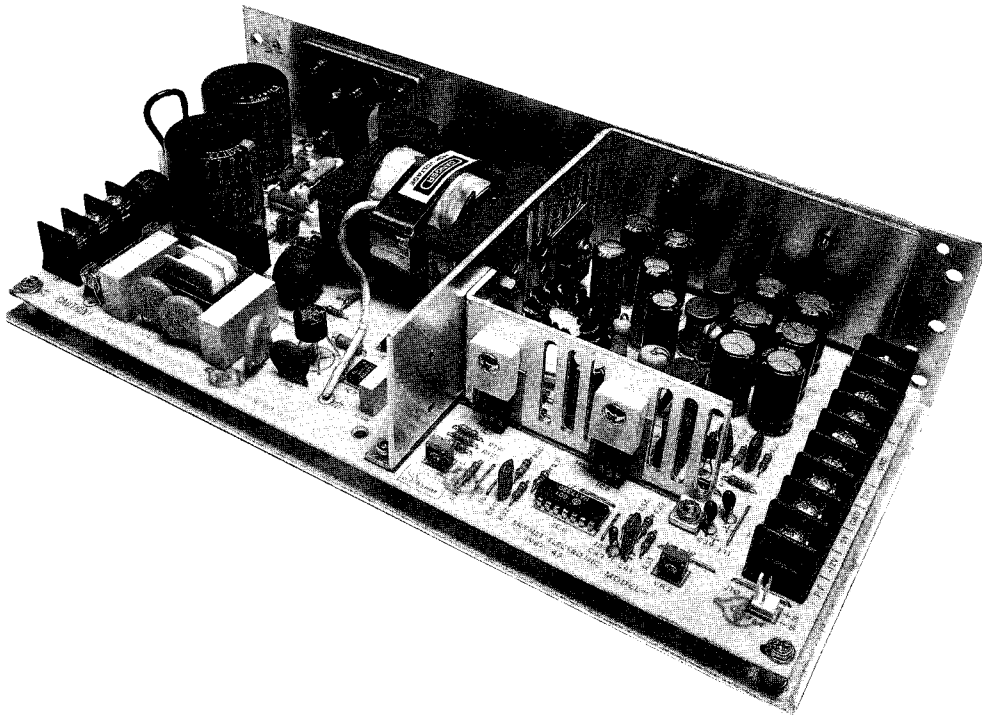
# 130W SNP-130 SERIES

## FEATURES

- 115/230 VAC SELECTABLE
- DC GAIN >40 dB
- PHASE MARGIN 90 DEGREE
- REMOTE SENSE
- 1% LOAD REGULATION
- POWER FAILURE SIGNAL

## APPLICATIONS

- PERSONAL COMPUTER SYSTEMS
- TELECOMMUNICATIONS
- CAD/CAM/CAE/CAI EQUIPMENT
- INDUSTRIAL
- ROBOTICS
- GENERAL PURPOSE



## DESCRIPTION

SNP-130 series are Quad output switchers providing a full rated load of 130 watts and a peak load of 150 watts. This series can also operate 150 watts continuous with 0.8M<sup>3</sup> / min. forced air. Input line filtering is provided to meet the basic requirements of FCC regulations.

The technology of PWM flyback and high speed MOSFET design permits higher efficiency and very low minimum load requirements. All auxiliary outputs are equipped with magnetic amplifier or post regulators to keep load regulation within 1%.



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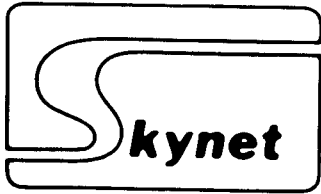
## GENERAL SPECIFICATIONS

|   |  |  |                                     |
|---|--|--|-------------------------------------|
| Input voltage . . . . .                                     | 90 VAC to 130 VAC<br>180 VAC to 260 VAC          | Temperature coefficient . . . . .      | +/- 0.02%/°C                        |
| Input frequency . . . . .                                   | 47 Hz to 440 Hz                                  | Efficiency . . . . .                   | 70% Typical                         |
| Inrush current (cold) . . . . .                             | 15A at 115VAC<br>30A at 230VAC                   | Holdup time . . . . .                  | (115v) 20ms                         |
| Power failure signal . . . . .                              | Power good TTL HI<br>Power fail TTL LO           | Overload protection . . . . .          | foldback<br>at 150% load            |
| Advance notice 5mS at full load<br>before 5V drops to 4.75V |  | Output adjustable range . . . . .      | 5V +/- 10%<br>12V +/- 5%            |
| Operation temperature . . . . .                             | 0 to 50°C<br>Linear derating to 50% load at 70°C | Overvoltage protection Type . . . . .  | crowbar<br>Trip point 6.2 +/- 0.4V  |
| Storage temperature . . . . .                               | -20°C to 85°C                                    | Switching frequency . . . . .          | 30KHz                               |
| Cooling . . . . .   | Free air convection                              | Designed in full compliance with . . . | UL 478,1012<br>CSA 22.2<br>VDE 0806 |

## OUTPUT SPECIFICATIONS

| MODEL NO. | OUTPUT VOLTAGE | LOAD |      |      | TOLERANCE % | REGULATION |      | RIPPLE |
|-----------|----------------|------|------|------|-------------|------------|------|--------|
|           |                | MIN. | RATE | MAX. |             | LINE       | LOAD |        |
| SNP-1300  | 5.0            | 3.0  | 15.0 | 20.0 | adj 10%     | 0.5%       | 1%   | 50 mV  |
|           | 12.0           | 0.0  | 4.0  | 6.0  | adj 5%      | 0.5%       | 1%   | 60 mV  |
|           | -12.0*         | 0.0  | 1.0  | 1.5  | 5%          | 0.5%       | 1%   | 100 mV |
|           | -5.            | 0.0  | 1.0  | 1.5  | 5%          | 0.5%       | 1%   | 100 mV |
| SNP-1301  | 5.0            | 3.0  | 15.0 | 20.0 | adj 10%     | 0.5%       | 1%   | 50 mV  |
|           | 24.0           | 0.0  | 2.0  | 4.0  | adj 5%      | 0.5%       | 1%   | 60 mV  |
|           | 12.0*          | 0.0  | 1.0  | 1.5  | 5%          | 0.5%       | 1%   | 100 mV |
|           | -12.0*         | 0.0  | 1.0  | 1.5  | 5%          | 0.5%       | 1%   | 100 mV |
| SNP-1302  | 5.0            | 3.0  | 15.0 | 20.0 | adj 10%     | 0.5%       | 1%   | 50 mV  |
|           | 12.0           | 0.0  | 4.0  | 6.0  | adj 5%      | 0.5%       | 1%   | 60 mV  |
|           | 12.0*          | 0.0  | 1.0  | 1.5  | 5%          | 0.5%       | 1%   | 100 mV |
|           | -12.0*         | 0.0  | 1.0  | 1.5  | 5%          | 0.5%       | 1%   | 100 mV |

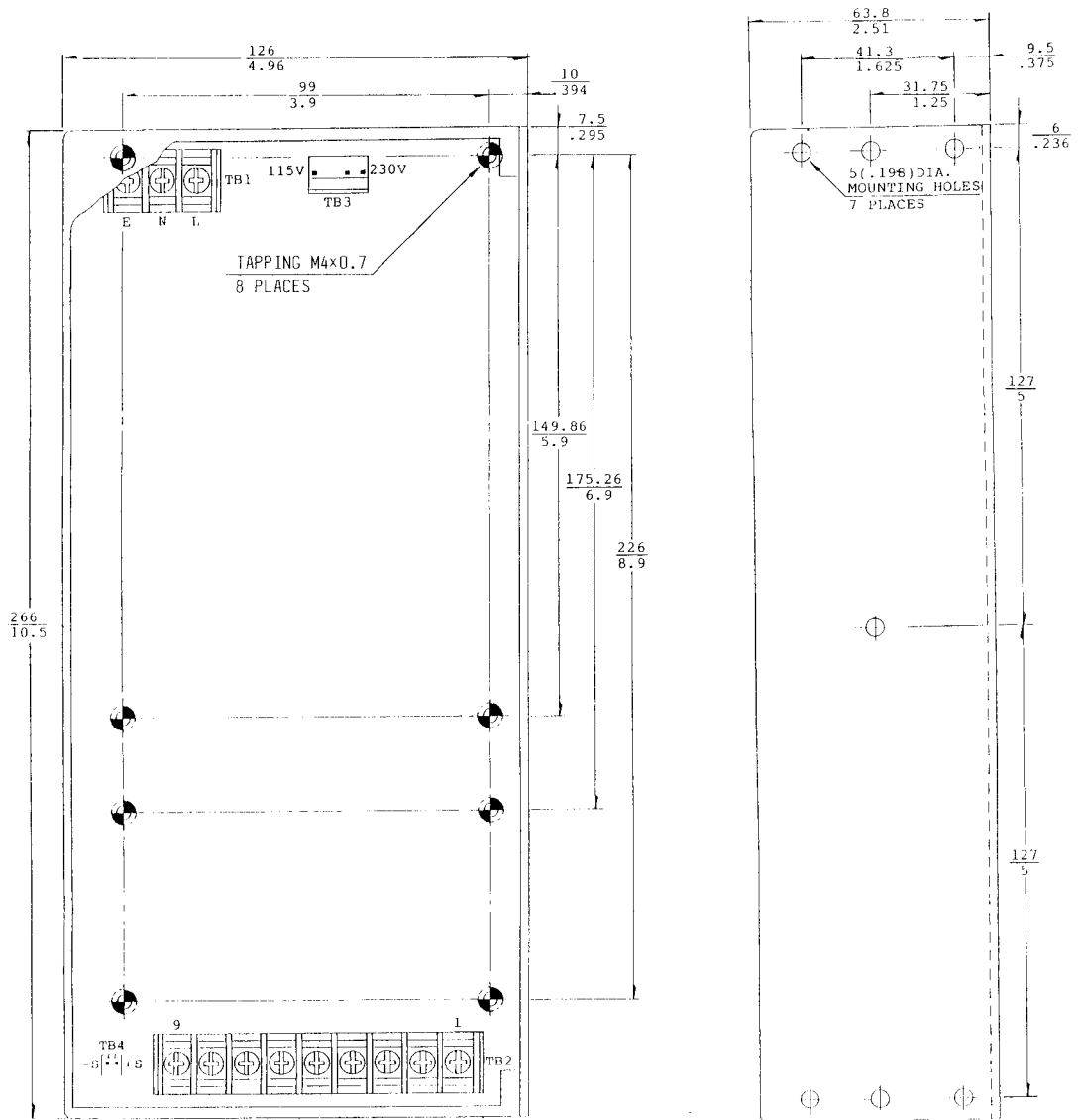
- Note:
1. Marked (\*) outputs have 3 terminal regulators.
  2. Remote sense on 5V. (12V remote sense also available)
  3. Each output can provide up to maximum load, but total load can not exceed 130 watts. 150 watts continuous with 0.8M<sup>3</sup>/min. forced air cooling.
  4. Ripple and noise are measured by using a 12" twisted pair terminated with a 47 UF capacitor.
  5. Tolerance is measured with all outputs at 50% rated load.
  6. Line regulation is measured from low line to high line at rated load.
  7. Load regulation is measured for +/- 40% load change from 60% rated load, and all other outputs are 60% rated load.



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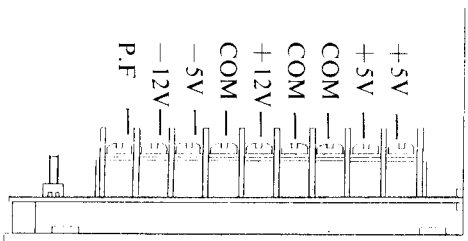
# 130W SNP-130 SERIES

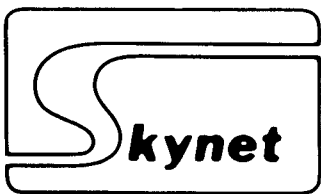
## MECHANICAL SPECIFICATIONS



**NOTE:**

1. DIMENSION SHOWN IN: MM/INCH
2. SIZE: 266mm x 126mm x 63.8mm (10.5" x 4.96" x 2.51")
3. MOUNTING HOLE: 99mm x 149.9mm (3.9" x 5.9")  
or 99mm x 175.3mm (3.9" x 6.9")  
or 99mm x 226mm (3.9" x 8.9")
4. WEIGHT: 1.0 Kg approx.
5. TB1 : AC INLET      TB3 : 115V/230V SELECT JUMPER  
TB2 : DC OUTLET      TB4 : 5V REMOTE SENSE





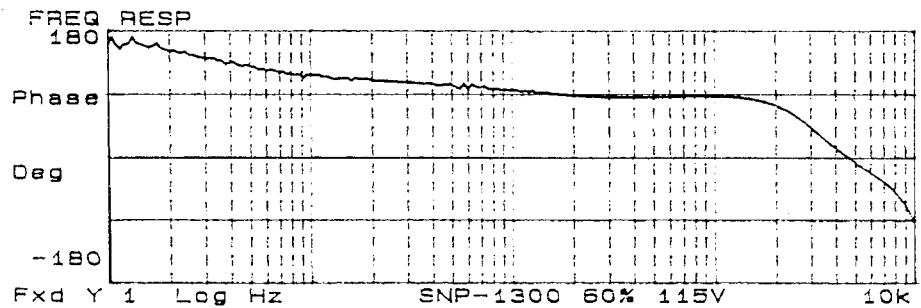
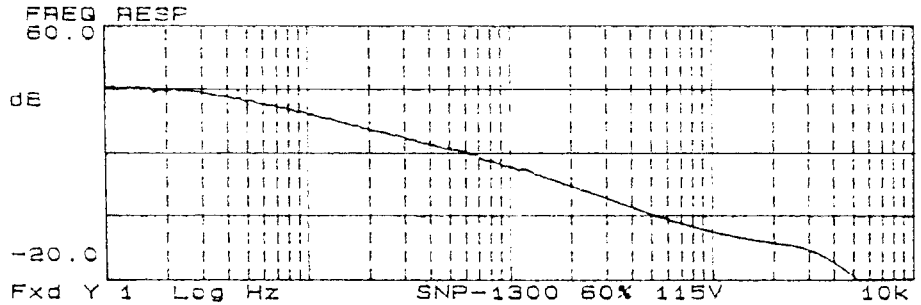
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# 130W SNP-130 SERIES

## STABILITY PERFORMANCE

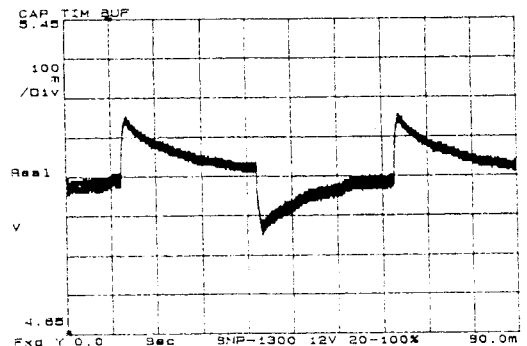
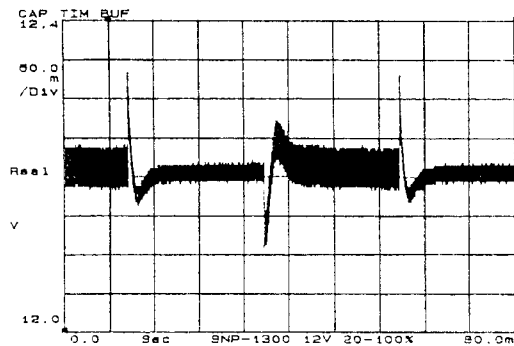
### 1. FREQUENCY RESPONSE

DC Gain: 40 dB  
Bandwidth: 500 Hz



### 2. LOAD REGULATION AND CROSS REGULATION

Test condition # 1 : with 60% load on 5V output, 12V load change from 20% to 100% rated load.



Test condition # 2 : with 60% load on 5V output, 12V load change from 20% to 150% rated load.

