

120W Open frame type switching power supplies for I.T.E.

## DESCRIPTION

The NSP-120 series of compact, open frame constructed, AC/DC switching mode power supplies provide 120 Watts of continuous output power. They are ideally suited for use in disc drive systems, microprocess or based systems, portable equipments and many other applications. All models meet FCC Part-15 class B and CISPR-22 class B emission limits and are designed to comply with UL/c-UL(UL 60950),TUV/GS(EN 60950) and CE requirements. All units are 100% burned in and tested.



## FEATURES

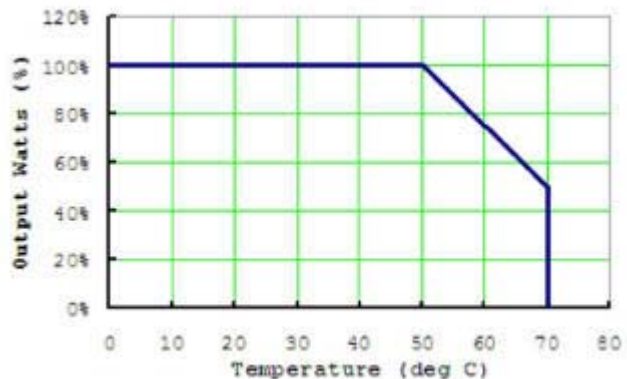
- Wide Input Voltage 90 to 264 VAC, 47 to 63 Hz
- Input connector mates with Molex housing 09-50-3051 and Molex 2478 series crimp terminal
- Output connector mates with Molex housing 09-50-3061;09-50-3131and Molex 2478 series crimp terminal
- Output Voltage Available from 3VDC through 50VDC
- Single to Triple Output
- Input Surge Current, Over Voltage and Over Load Protection
- Size: 3"x5"x1.32"
- 2 year warranty
- Class I Insulation
- Power Factor Correction
- Power Fail Detect (Optional)

## ELECTRICAL CHARACTERISTICS

- Efficiency: 80% min.
- Line Regulation: 1% max.
- Load Regulation: 5% max.
- Hold-up Time: 16mS min.
- Output ripple and noise: 0.5% (Typ.).  
(The Ripple & Noise which is under 3.3VDC at 2% max)

## ENVIRONMENTAL

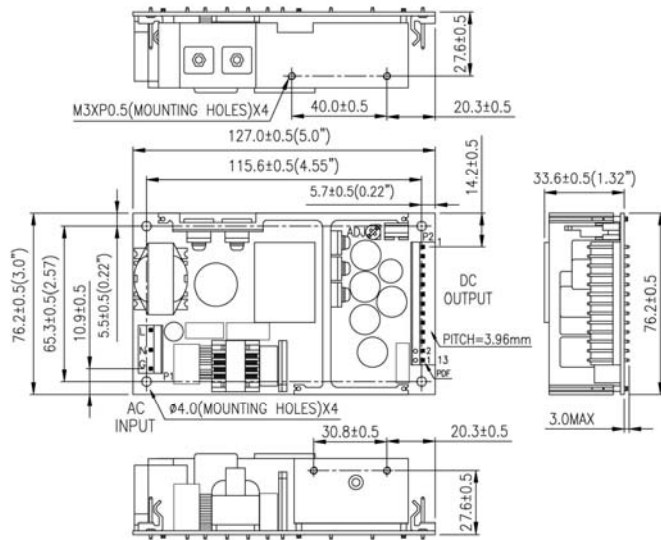
- Operating Temperature: 0 to 70°C
- Derate linearly from 100% load at 50°C to 50% load at 70°C
- Storage Temperature: -40 to 85°C
- Relative Humidity: 5 to 95%
- MTBF: 100,000 calculated hours.



**OUTPUT VOLTAGE AND CURRENT RANGE**

| Model No.   | Output Voltage      | Max. Output Current | Total Regulation | Max. Output Power | Safety            |
|-------------|---------------------|---------------------|------------------|-------------------|-------------------|
| ▶ NSP120-1  | 3-5VDC              | 22.0~20.0A          | 5%               | 100W              | UL/CUL, TUV-GS,CE |
| ▶ NSP120-2  | 5-6VDC              | 22.0~18.33A         | 5%               | 110w              | UL/CUL, TUV-GS,CE |
| ▶ NSP120-3  | 6-9VDC              | 19.16~12.77A        | 5%               | 115W              | UL/CUL, TUV-GS,CE |
| ▶ NSP120-4  | 9-11VDC             | 13.33~10.9A         | 4%               | 120W              | UL/CUL, TUV-GS,CE |
| ▶ NSP120-5  | 11-13VDC            | 10.9~9.23A          | 3%               | 120W              | UL/CUL, TUV-GS,CE |
| ▶ NSP120-6  | 13-16VDC            | 9.23~7.50A          | 3%               | 120W              | UL/CUL, TUV-GS,CE |
| ▶ NSP120-7  | 16-21VDC            | 7.50~5.71A          | 3%               | 120W              | UL/CUL, TUV-GS,CE |
| ▶ NSP120-8  | 21-27VDC            | 5.71~4.44A          | 2%               | 120W              | UL/CUL, TUV-GS,CE |
| ▶ NSP120-9  | 27-33VDC            | 4.44~3.63A          | 2%               | 120W              | UL/CUL, TUV-GS,CE |
| ▶ NSP120-10 | 33-40VDC            | 3.63~3.00A          | 2%               | 120W              | UL/CUL, TUV-GS,CE |
| ▶ NSP120-11 | 40-50VDC            | 3.00~2.40A          | 2%               | 120W              | UL/CUL, TUV-GS,CE |
| ▶ NSP120-20 | +3.3VDC<br>+12.0VDC | 15.0A<br>6.0A       | 5%<br>5%         | 120W              | UL/CUL, TUV-GS,CE |
| ▶ NSP120-21 | +5.0VDC<br>-12.0VDC | 15.0A<br>6.0A       | 5%<br>5%         | 120W              | UL/CUL, TUV-GS,CE |
| ▶ NSP120-22 | +5.0VDC<br>+15.0VDC | 15.0A<br>6.0A       | 5%<br>5%         | 120W              | UL/CUL, TUV-GS,CE |
| ▶ NSP120-23 | +5.0VDC<br>+24.0VDC | 15.0A<br>3.5A       | 5%<br>5%         | 120W              | UL/CUL, TUV-GS,CE |
| ▶ NSP120-24 | +3.3VDC<br>+5.0VDC  | 15.0A<br>6.0A       | 5%<br>5%         | 120W              | UL/CUL, TUV-GS,CE |
| ▶ NSP120-25 | +5.0VDC<br>-24.0VDC | 15.0A<br>2.0A       | 5%<br>5%         | 120W              | UL/CUL, TUV-GS,CE |
| ▶ NSP120-29 | +28.0VDC<br>+5.0VDC | 3.92A<br>2.0A       | 5%<br>5%         | 120W              | UL/CUL, TUV-GS,CE |

## Mechanical Specifications :



## PIN CHART

| MODEL            | PIN | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  | 11  | 12  | 13<br>(Optional) |
|------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------------------|
| NSP120-1XX-13PIN | OUT | OUT | OUT | OUT | OUT | OUT | RTN | RTN | RTN | RTN | RTN | RTN | RTN | PFD              |
| NSP120-219-13PIN | N/C | N/C | Vo1 | Vo1 | Vo1 | Vo1 | COM | COM | COM | Vo3 | COM | COM | COM | PFD              |
| NSP120-215-13PIN | N/C | N/C | Vo1 | Vo1 | Vo1 | Vo1 | COM | COM | COM | Vo3 | COM | COM | COM | PFD              |
| NSP120-2XX-13PIN | Vo2 | Vo2 | Vo1 | Vo1 | Vo1 | Vo1 | COM | COM | COM | N/C | COM | COM | COM | PFD              |
| NSP120-3XX-13PIN | Vo2 | Vo2 | Vo1 | Vo1 | Vo1 | Vo1 | COM | COM | COM | Vo3 | COM | COM | COM | PFD              |

Note: Vo1:Output#1 Vo2:Output#2 Vo3:Output#3

## Note:

1. Dimensions are shown in inches or mm .
2. Weight: 350~428gs approx.
3. Input connector mates with Molex housing 09-50-3051 and Molex 2478 series crimp terminal.
4. Output connector mates with Molex housing 09-50-3131 and Molex 2478 series crimp terminal.