



## FSP120-AxxN3 Series

### FEATURES

- Certified IEC 62368-1 & CB 60950-1
- Meet USA EISA 2007
- Meet Energy Efficiency DOE Level VI
- Meet Code of Conduct Version 5 Tier 2
- High Reliability
- Low Profile
- Over Current Protection
- Over Temperature Protection
- Over Voltage Protection
- With PFC Circuit

### SAFETY STANDARD APPROVAL



### DESCRIPTION

This product is an 120 watts AC to DC adapter intended for use in IPC systems, embedded systems, printers, monitors, POS systems and PoE application, that have a high wattage demands. This adapter operates at 90 to 264 VAC input voltage. The unit meets CISPR32 EN55032 CLASS B, EN55024 and FCC PART 15B Class B emission limits, and is designed for ITE application.

### INPUT SPECIFICATIONS

|                           |  |
|---------------------------|--|
| Input voltage:            | 90-264 VAC                             |
| Input frequency:          | 47-63 Hz                               |
| Input current:            | 100Vac, 240Vac / full load $\leq$ 1.2A |
| No load power consumption | 115Vac , 230Vac $\leq$ 0.5W            |
| Touch current:            | 264Vac / 50Hz $\leq$ 0.25mA            |

### OUTPUT SPECIFICATIONS

|                               |   |
|-------------------------------|---|
| Output voltage/current:       | See rating chart  |
| Total output power:           | 120W  |
| Protection:                   |   |
| Over voltage:                 | The adapter will enter into shut down that means no output while over voltage happened at output terminal that caused by internal fault, the output trip voltage shall not exceed 19/29/35/63/65* volts. That will be return to normal state by AC reset. |
| Short circuit & Over current: | When an internal fault occurs, or an external fault is applied to the power supply, such that an overload or short circuit is applied to the output, the power supply shall shut down and enter auto-recovery mode.                                       |
| Over temperature:             | The power supply will enter into shut down while the abnormal thermal rise occurs. That will be return to normal state by AC reset.   |
| Brown-out                     | Set at 60Vac~70Vac  |
| Environment                   |   |
| Working TEMP.                 | 0~70°C (> 40°C de-rating )  |
| Storage TEMP.                 | -20~+80°C   |
| Working Humidity              | 20~80% RH non-condensing  |
| Storage Humidity              | 10~90% RH non-condensing  |

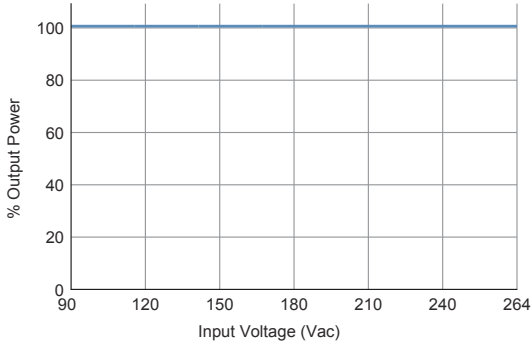
### INPUT SPECIFICATIONS

|                     |   |
|---------------------|---|
| Power factor:       | 115Vac, 230Vac / full load $\geq$ 0.9<br>Provisions for adding harmonic reduction per EN 61000-3-2 must be present.   |
| Efficiency:         | See rating chart  |
| Power turn-on time  | At 100Vac / full load, output voltage shall remain regulation $\leq$ 3Sec   |
| Hold-up time:       | At 100Vac or 240Vac / full load, output voltage shall remain regulation $\geq$ 10ms   |
| Inrush current:     | 100Vac, 240Vac / full load , Shall be less than the rating of adapter critical component (including rectifiers, fuse surge and current limiting device)   |
| Operating altitude: | 5000 meters above sea level   |
| Withstand voltage:  | Between AC input and secondary applied DC 4242V, test time 1 minute, cut off current shall be less than 10mA  |
| MTBF:               | 100Vac, 240Vac / full load, 300,000 hours at 25°C, standard SR332   |
| EMC Performance:    |   |
| EN55032             | Class B conducted, class B radiated   |
| FCC                 | Class B conducted, class B radiated   |
| VCCI                | Class B conducted, class B radiated   |
| EN61000-3-2         | Meet class D  |
| EN61000-3-3         | Meet regulation   |
| EN61000-4-2         | Air discharge: $\pm$ 15 KV, contact discharge: $\pm$ 8KV, meet criterion A  |
| EN61000-4-3         | 80 ~1000 MHz, 3V/m, 80% AM(1kHz), meet criterion A  |
| EN61000-4-4         | Impulse: $\pm$ 1kV applied to L,N, meet criterion A   |
| EN61000-4-5         | $\pm$ 1kV applied differential mode, $\pm$ 2kV applied common mode, meet criterion A  |
| EN61000-4-6         | 0.15 ~ 80 MHz, 3Vrms, 80% AM(1kHz), meet criterion A  |
| EN61000-4-8         | 50 Hz or 60Hz, 1A/m, meet criterion A   |
| EN61000-4-11        | Voltage Dips :<br>>95% reduction for 0.5 period, meet criterion B<br>30% reduction for 25 period, meet criterion C  |
| Power de-rating:    | Voltage Interruptions :<br>>95% reduction for 250 period, meet criterion C<br>100Vac or 240Vac, 0°C to 40°C, 100% load, 50°C, 85% load, 60°C, 70% load, 70°C, 55% load (Shall be less than the rating of adapter critical component , follow FSP specification (adapter)) |

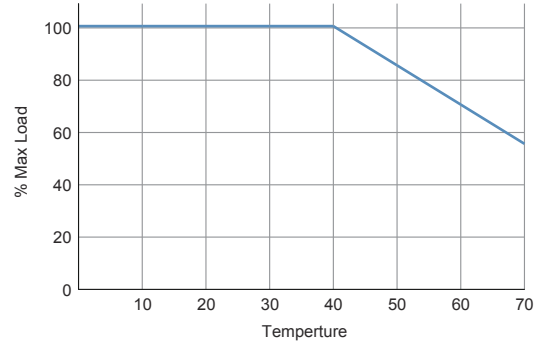
Notes:

\*Volts express by order of 120-AHxN3/ ABxN3/ AAxN3 / AFxN3/ AWxN3

**INPUT VOLTAGE DERATING CURVE**



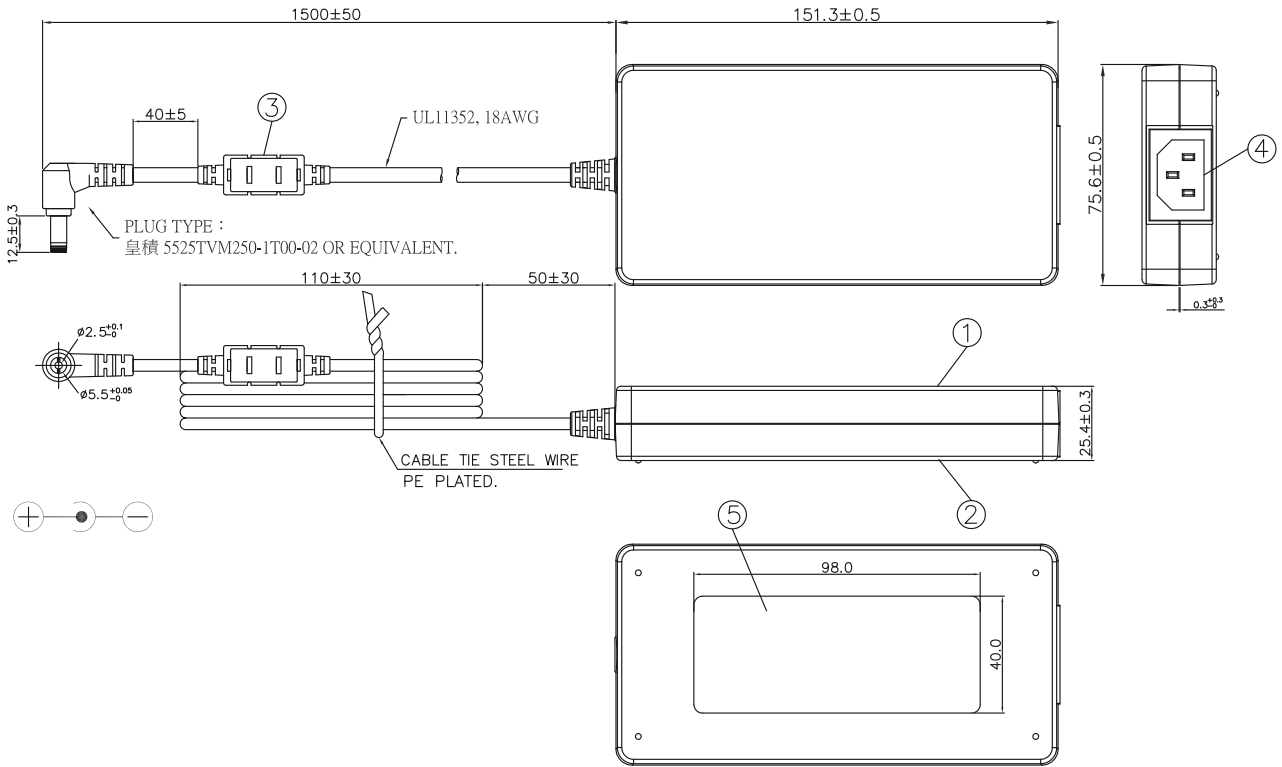
**OUTPUT POWER DERATING CURVE**



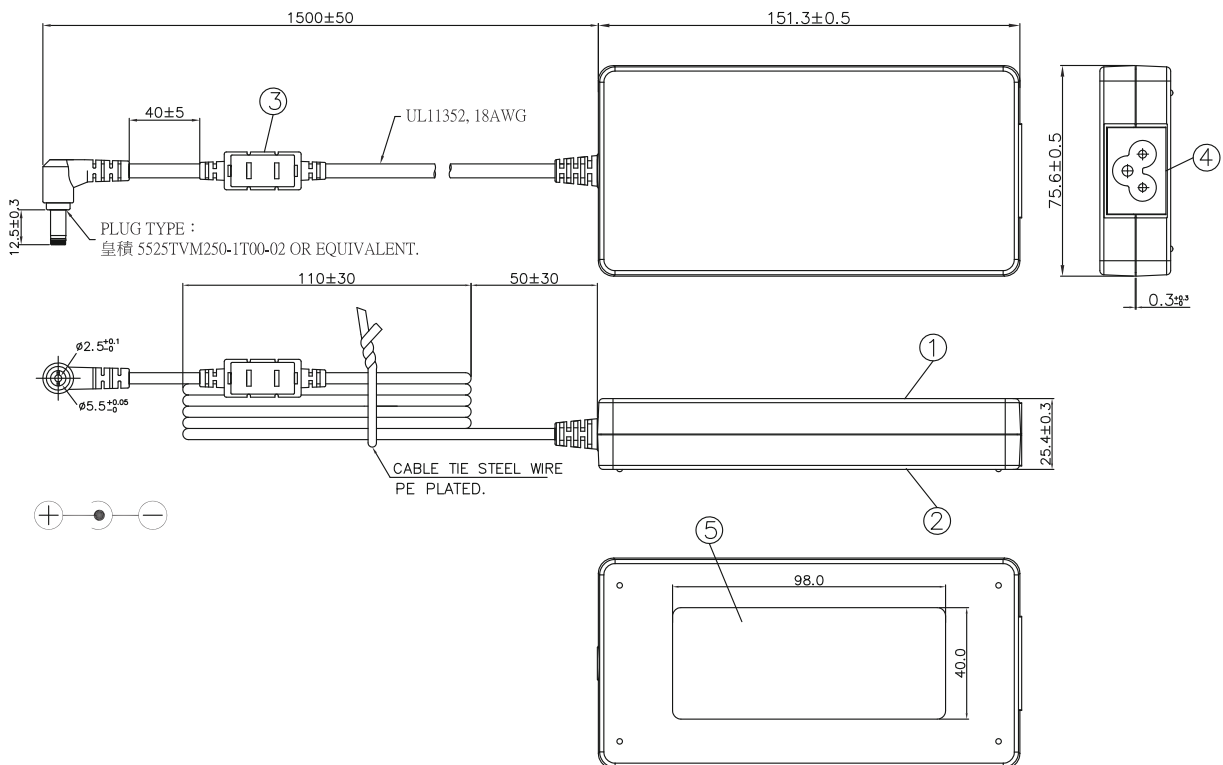
**OUTPUT VOLTAGE/CURRENT RATING CHART**

| Model        | Output Voltage | Output Current | AC Inlet | Efficiency    |                 | Over Voltage Protection |
|--------------|----------------|----------------|----------|---------------|-----------------|-------------------------|
|              |                |                |          | DOE(Level VI) | CoC V5 (Tier 2) |                         |
| FSP120-AHAN3 | 12V            | 10A            | C14      | ≥88%          | ≥89%            | 19 Volts                |
| FSP120-AHBN3 | 12V            | 10A            | C6       |               |                 |                         |
| FSP120-ABAN3 | 19V            | 6.32A          | C14      |               |                 | 29 Volts                |
| FSP120-ABBN3 | 19V            | 6.32A          | C6       |               |                 |                         |
| FSP120-AAAN3 | 24V            | 5A             | C14      |               |                 | 35 Volts                |
| FSP120-AABN3 | 24V            | 5A             | C6       |               |                 |                         |
| FSP120-AFAN3 | 48V            | 2.5A           | C14      |               |                 | 63 Volts                |
| FSP120-AFBN3 | 48V            | 2.5A           | C6       |               |                 |                         |
| FSP120-AWAN3 | 54V            | 2.22A          | C14      |               |                 | 65 Volts                |
| FSP120-AWBN3 | 54V            | 2.22A          | C6       |               |                 |                         |

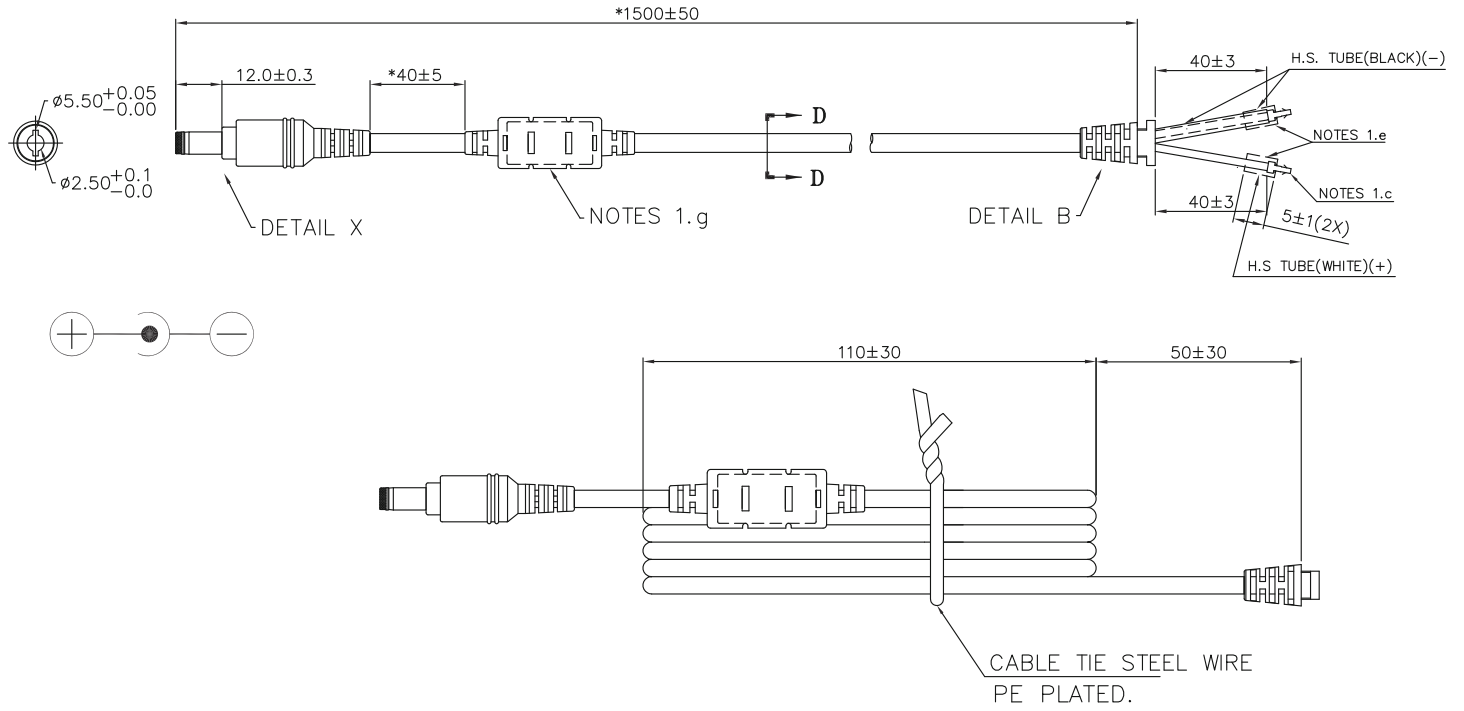
**MECHANICAL & AC CONNECTOR SPECIFICATIONS**  
 FSP120-AxAN3



FSP120-AxBN3



FSP120-AAAN3 DC Connector Specifications



**PIN CHART**

|                 |       |        |
|-----------------|-------|--------|
| <b>Polarity</b> | V0(+) | GND(-) |
| <b>Color</b>    | White | Black  |

Note: DC connector might be varied, please check with your FSP representative.