## SPECIFICATION

### MODEL

<table>
<thead>
<tr>
<th>MODEL</th>
<th>DC VOLTAGE</th>
<th>RATED CURRENT</th>
<th>CURRENT RANGE</th>
<th>RATED POWER</th>
<th>RIPPLE &amp; NOISE (max.)</th>
<th>VOLTAGE ADJ. RANGE</th>
<th>VOLTAGE TOLERANCE</th>
<th>LINE REGULATION</th>
<th>LOAD REGULATION</th>
<th>OUTPUT VOLTAGE ADJ. RANGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>SP-750-5</td>
<td>5V</td>
<td>120A</td>
<td>0 ~ 120A</td>
<td>600W</td>
<td>120mVp-p</td>
<td>4.75 ~ 5.5V</td>
<td>±2.0%</td>
<td>±0.5%</td>
<td>±0.5%</td>
<td>0 ~ 15.7V</td>
</tr>
<tr>
<td>SP-750-12</td>
<td>12V</td>
<td>62.5A</td>
<td>0 ~ 62.5A</td>
<td>750W</td>
<td>120mVp-p</td>
<td>10 ~ 13.5V</td>
<td>±1.0%</td>
<td>±0.3%</td>
<td>±0.5%</td>
<td>10 ~ 120A</td>
</tr>
<tr>
<td>SP-750-15</td>
<td>15V</td>
<td>50A</td>
<td>0 ~ 50A</td>
<td>750W</td>
<td>120mVp-p</td>
<td>13.5 ~ 16.5V</td>
<td>±1.0%</td>
<td>±0.3%</td>
<td>±0.5%</td>
<td>15 ~ 27.8V</td>
</tr>
<tr>
<td>SP-750-24</td>
<td>24V</td>
<td>31.3A</td>
<td>0 ~ 31.3A</td>
<td>751.2W</td>
<td>120mVp-p</td>
<td>22 ~ 26.4V</td>
<td>±1.0%</td>
<td>±0.3%</td>
<td>±0.5%</td>
<td>27 ~ 42.4V</td>
</tr>
<tr>
<td>SP-750-27</td>
<td>27V</td>
<td>27.8A</td>
<td>0 ~ 27.8A</td>
<td>750.6W</td>
<td>120mVp-p</td>
<td>24 ~ 30V</td>
<td>±1.0%</td>
<td>±0.3%</td>
<td>±0.5%</td>
<td>35 ~ 61.5V</td>
</tr>
<tr>
<td>SP-750-48</td>
<td>48V</td>
<td>15.7A</td>
<td>0 ~ 15.7A</td>
<td>753.6W</td>
<td>120mVp-p</td>
<td>43 ~ 56V</td>
<td>±1.0%</td>
<td>±0.3%</td>
<td>±0.5%</td>
<td>45 ~ 90V</td>
</tr>
</tbody>
</table>

### OUTPUT

- **Setup, Rise Time:** 1500ms, 50ms/230VAC
- **Hold Time (Typ.):** 16ms/230VAC

### INPUT

- **Voltage Range:** 90 ~ 264VAC
- **Frequency Range:** 47 ~ 63Hz
- **Power Factor (Typ.):** PF>0.96/230VAC
- **Efficiency (Typ.):** 81%
- **AC Current (Typ.):** 8.6A/115VAC
- **Inrush Current (Typ.):** 27A/115VAC
- **Leakage Current:** <2.0mA /240VAC

### PROTECTION

- **Over Load:** 105 ~ 125% rated output power
  - Protection type: Constant current limiting, unit will Hiccup after 3 sec.
- **Over Voltage:** 5.75 ~ 6.3V
  - Protection type: Shut down o/p voltage, re-power on to recover
- **Over Temperature:** 85°C ±5°C (TSW1) Detect on heatsink of power transistor
  - Protection type: Shut down o/p voltage, recovers automatically after temperature goes down

### FUNCTION

- **Power Good/Fail:** 50ms/1ms
- **Remote Control:** RC+/RC- short power on, open power off

### ENVIRONMENT

- **Working Temp.:** 20 ~ +60°C (Refer to output load derating curve)
- **Working Humidity:** 20~90% RH non-condensing
- **Storage Temp., Humidity:** -40 ~ +85°C, 10 ~ 95% RH
- **Temp. Coefficient:** ±0.05%/°C (0 ~ 50°C)
- **Vibration:** 10 ~ 500Hz, 2G 10min.1cycle, 60min. each along X, Y, Z axes

### SAFETY & EMC

#### (Note 4)

<table>
<thead>
<tr>
<th>Safety Standards</th>
<th>Withstand Voltage</th>
<th>Isolation Resistance</th>
<th>EMI Conduction &amp; Radiation</th>
<th>Harmonic Current</th>
<th>EMS Immunity</th>
</tr>
</thead>
<tbody>
<tr>
<td>UL60950-1, TUV EN60950-1 Approved</td>
<td>I/P, O/P: 3KVAC</td>
<td>I/P, O/P: 5KVAC</td>
<td>Compliance to EN55011 (CISPR11), EN55022 (CISPR22) Class B</td>
<td>Compliance to EN61000-3-2, -3</td>
<td>Compliance to EN61000-4-2, 3, 4, 5, 6, 8, 11, EN550204, EN55024, EN61000-6-2, EN61204-3 Heavy industry level, criteria A</td>
</tr>
</tbody>
</table>

### OTHERS

- **MTBF:** 769.3k hrs min. MIL-HDBK-217F (25°C)
- **Dimension:** 278*127*63.5mm (L*W*H)
- **Packaging:** 2.9Kg; 8pcs / 18.4Kg / 0.98CUFT

### NOTE

1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.
2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair wire terminated with a 0.1uf & 47uf parallel capacitor.
3. Tolerance includes set up tolerance, line regulation and load regulation.
4. The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives.
5. The power supply unit will have no output if the shorting connector is not assembled between RC+ & RC-.

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**File Name:** SP-750-SPEC 2006-10-17
**Mechanical Specification**

AC Input Terminal

<table>
<thead>
<tr>
<th>Pin No.</th>
<th>Assignment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>AC/L</td>
</tr>
<tr>
<td>2</td>
<td>AC/N</td>
</tr>
<tr>
<td>3</td>
<td>FG</td>
</tr>
</tbody>
</table>

DC Output Terminal

<table>
<thead>
<tr>
<th>Pin No.</th>
<th>Assignment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>DC OUTPUT +V</td>
</tr>
<tr>
<td>2</td>
<td>DC OUTPUT -V</td>
</tr>
</tbody>
</table>

Control Pin: MOLEX 5559-NP uses 5558 male crimp terminal

<table>
<thead>
<tr>
<th>Pin No.</th>
<th>Assignment</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>NC</td>
</tr>
<tr>
<td>6</td>
<td>-S</td>
</tr>
<tr>
<td>7</td>
<td>G</td>
</tr>
<tr>
<td>8</td>
<td>RC+</td>
</tr>
</tbody>
</table>

Mating connector: MOLEX 5557-NR Female crimp terminal receptacle

**Block Diagram**

PFC fosc: 100KHz
PWM fosc: 140KHz

**750W Single Output Power Supply**

**File Name:** SP-750-SPEC  2006-10-17
## Derating Curve

![Derating Curve Graph]

## Static Characteristics

![Static Characteristics Graph]

## Control Terminal Instruction Manual

### Power Fail Signal

PF Signal is the voltage difference between "G" and "PF" pin output.

### Remote Sensing

Remote Sensing

### Remote Control

- Power ON: RC+/RC- Short
- Power OFF: RC+/RC- open