



### ■ Features :

- Universal AC input/Full range
- AC input active surge current limiting
- Built-in active PFC function, PF>0.96
- Protections: Short circuit, overload, over voltage, over temperature
- Forced air cooling by built-in DC ball bearing fan
- High power density 5.48/inch<sup>3</sup>
- Built-in constant current limiting circuit
- With power good and fail signal output
- Built-in remote ON-OFF control
- Built-in remote sense function
- 3 years warranty

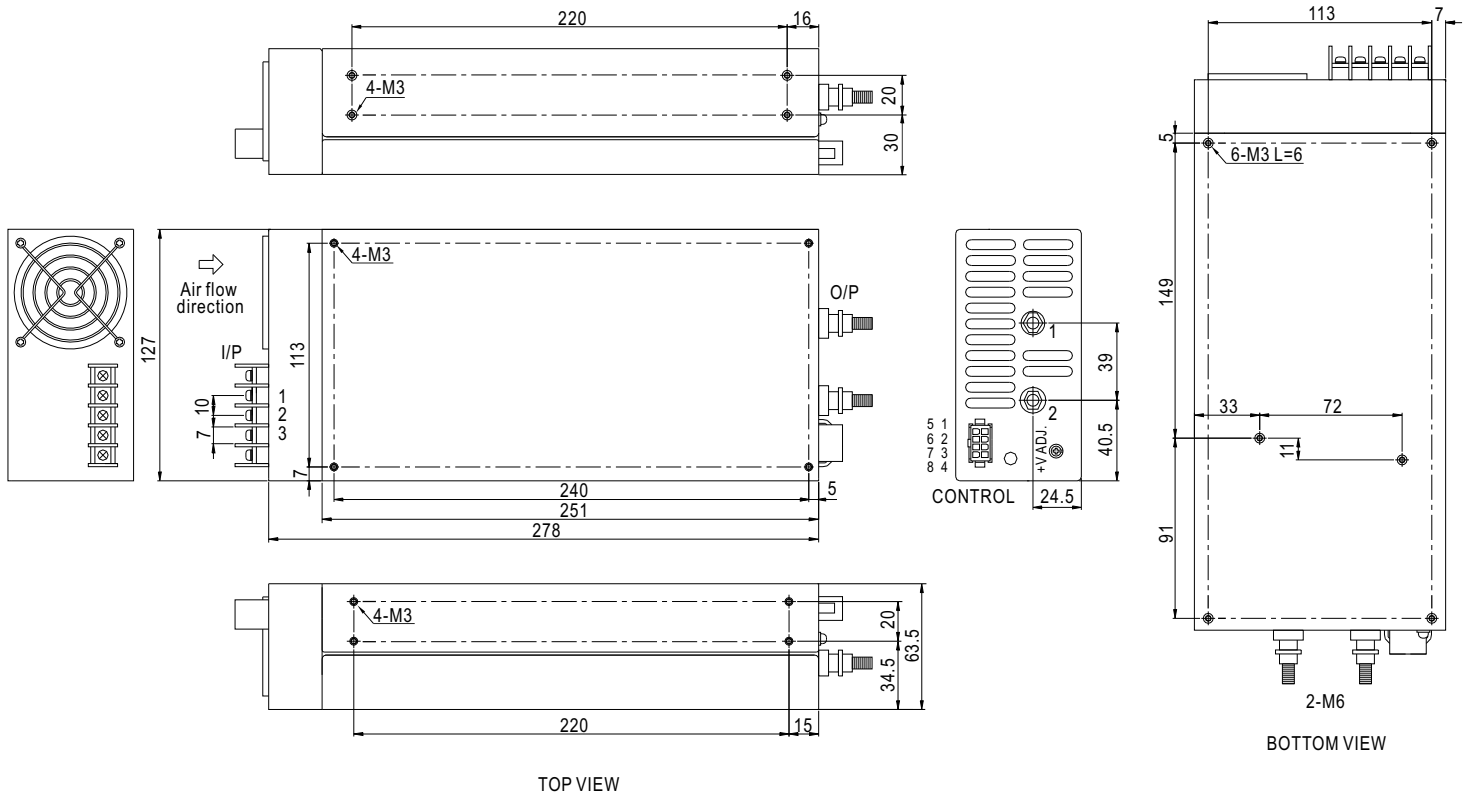


### SPECIFICATION

| MODEL                 |   | SP-750-5   | SP-750-12    | SP-750-15    | SP-750-24    | SP-750-27  | SP-750-48    |
|-----------------------|---|--|--------------|--------------|--------------|------------|--------------|
| OUTPUT                | DC VOLTAGE  | 5V   | 12V          | 15V          | 24V          | 27V        | 48V          |
|                       | RATED CURRENT   | 120A   | 62.5A        | 50A          | 31.3A        | 27.8A      | 15.7A        |
|                       | CURRENT RANGE   | 0 ~ 120A   | 0 ~ 62.5A    | 0 ~ 50A      | 0 ~ 31.3A    | 0 ~ 27.8A  | 0 ~ 15.7A    |
|                       | RATED POWER   | 600W   | 750W         | 750W         | 751.2W       | 750.6W     | 753.6W       |
|                       | RIPPLE & NOISE (max.) Note.2  | 120mVp-p   | 120mVp-p     | 120mVp-p     | 120mVp-p     | 120mVp-p   | 120mVp-p     |
|                       | VOLTAGE ADJ. RANGE  | 4.75 ~ 5.5V  | 10 ~ 13.5V   | 13.5 ~ 16.5V | 22 ~ 26.4V   | 24 ~ 30V   | 43 ~ 56V     |
|                       | VOLTAGE TOLERANCE Note.3  | ±2.0%  | ±1.0%        | ±1.0%        | ±1.0%        | ±1.0%      | ±1.0%        |
|                       | LINE REGULATION   | ±0.5%  | ±0.3%        | ±0.3%        | ±0.2%        | ±0.2%      | ±0.2%        |
|                       | LOAD REGULATION   | ±2.0%  | ±0.5%        | ±0.5%        | ±0.5%        | ±0.5%      | ±0.5%        |
|                       | SETUP, RISE TIME  | 1500ms, 50ms/230VAC      1500ms, 50ms/115VAC at full load  |              |              |              |            |              |
| HOLD TIME (Typ.)      | 16ms/230VAC      16ms/115VAC at full load   |  |              |              |              |            |              |
| INPUT                 | VOLTAGE RANGE   | 90 ~ 264VAC      127 ~ 370VDC  |              |              |              |            |              |
|                       | FREQUENCY RANGE   | 47 ~ 63Hz  |              |              |              |            |              |
|                       | POWER FACTOR (Typ.)   | PF>0.96/230VAC      PF>0.99/115VAC at full load  |              |              |              |            |              |
|                       | EFFICIENCY (Typ.)   | 81%  | 85%          | 87%          | 89%          | 89%        | 90%          |
|                       | AC CURRENT (Typ.)   | 8.8A/115VAC  | 4.2A/230VAC  |              |              |            |              |
|                       | INRUSH CURRENT (Typ.)   | 27A/115VAC   | 45A/230VAC   |              |              |            |              |
| LEAKAGE CURRENT       | <2.0mA / 240VAC   |  |              |              |              |            |              |
| PROTECTION            | OVER LOAD   | 105 ~ 125% rated output power<br>Protection type : Constant current limiting, unit will Hiccup after 3 sec.  |              |              |              |            |              |
|                       | OVER VOLTAGE  | 5.75 ~ 6.3V  | 13.8 ~ 16.2V | 18 ~ 21V     | 27.6 ~ 32.4V | 31 ~ 36.5V | 57.6 ~ 67.2V |
|                       | OVER TEMPERATURE  | 85°C±5°C (TSW1 ) Detect on heatsink of power transistor      85°C±5°C (TSW2 ) Detect on heatsink of power diode<br>Protection type : Shut down o/p voltage, recovers automatically after temperature goes down |              |              |              |            |              |
| FUNCTION              | POWER GOOD/FAIL   | 50ms/1ms   |              |              |              |            |              |
|                       | REMOTE CONTROL Note.5   | 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) | SAFETY STANDARDS  | UL60950-1, TUV EN60950-1 Approved  |              |              |              |            |              |
|                       | WITHSTAND VOLTAGE   | I/P-O/P:3KVAC    I/P-FG:1.5KVAC    O/P-FG:0.5KVAC  |              |              |              |            |              |
|                       | ISOLATION RESISTANCE  | I/P-O/P, I/P-FG, O/P-FG:100M Ohms/500VDC   |              |              |              |            |              |
|                       | EMI CONDUCTION & RADIATION  | Compliance to EN55011 (CISPR11), EN55022 (CISPR22) Class B   |              |              |              |            |              |
|                       | HARMONIC CURRENT  | Compliance to EN61000-3-2,-3   |              |              |              |            |              |
|                       | EMS IMMUNITY  | Compliance to EN61000-4-2,3,4,5,6,8,11, ENV50204, EN55024, EN61000-6-2, EN61204-3 Heavy industry level, criteria A   |              |              |              |            |              |
| OTHERS                | MTBF  | 769.3K hrs min.    MIL-HDBK-217F (25°C)  |              |              |              |            |              |
|                       | DIMENSION   | 278*127*63.5mm (L*W*H)   |              |              |              |            |              |
|                       | PACKING   | 2.9Kg; 6pcs / 18.4Kg / 0.98CUFT  |              |              |              |            |              |
| NOTE                  | <ol style="list-style-type: none"> <li>1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.</li> <li>2. Ripple &amp; noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf &amp; 47uf parallel capacitor.</li> <li>3. Tolerance : includes set up tolerance, line regulation and load regulation.</li> <li>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.</li> <li>5. The power supply unit will have no output if the shorting connector is not assembled between RC+ &amp; RC-.</li> </ol> |  |              |              |              |            |              |

**Mechanical Specification**

Case No.919A Unit:mm



AC Input Terminal Pin. No. Assignment

| Pin No. | Assignment |
|---------|------------|
| 1       | AC/L       |
| 2       | AC/N       |
| 3       | FG $\perp$ |

DC Output Terminal Pin. No Assignment

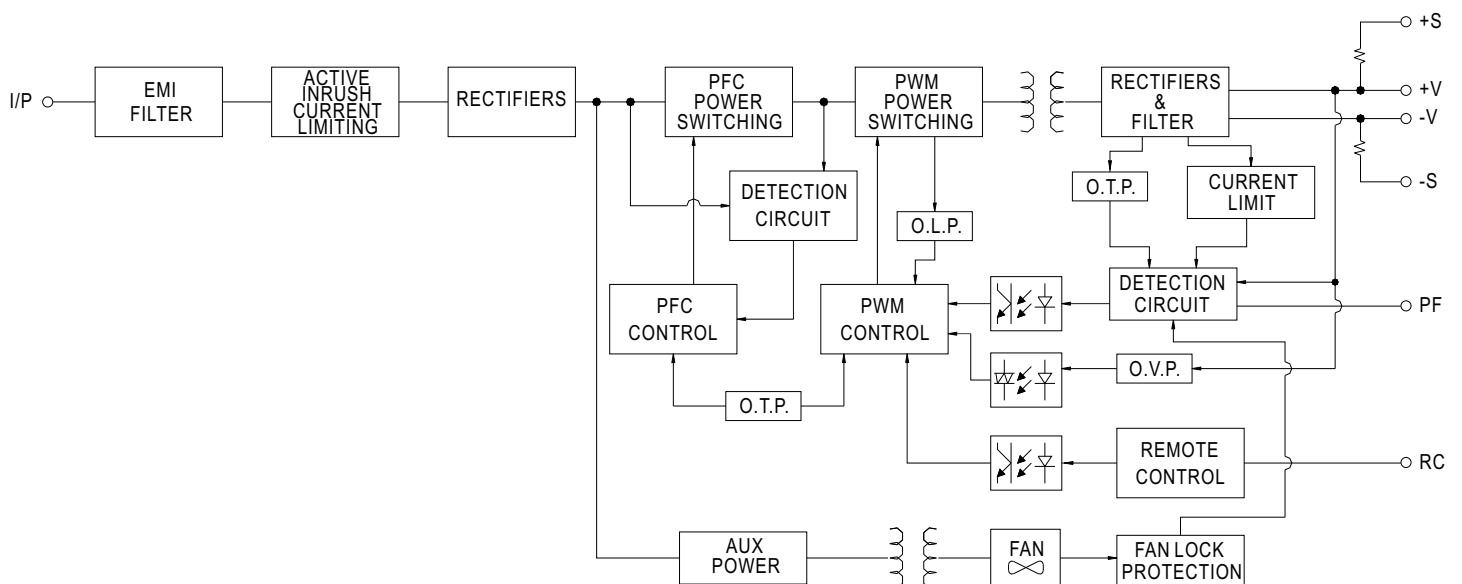
| Pin No. | Assignment   |
|---------|--------------|
| 1       | DC OUTPUT +V |
| 2       | DC OUTPUT -V |

Control Pin. No Assignment : MOLEX 5559-NP uses 5558male crimp terminal

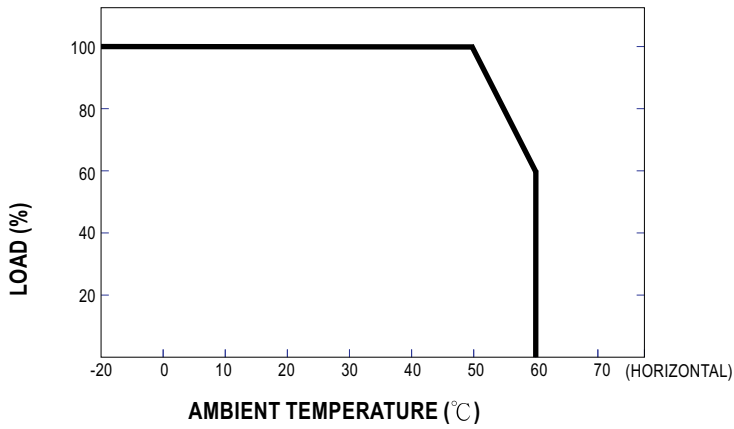
| Pin No. | Assignment | Pin No. | Assignment            | Mating connector | Terminal                                    |
|---------|------------|---------|-----------------------|------------------|---|
| 1       | NC         | 5       | NC                    | MOLEX 5557-NR    | MOLEX 5556 Female crimp Terminal receptacle |
| 2       | -S         | 6       | PF(Power fail signal) |                  |   |
| 3       | G          | 7       | +S                    |                  |   |
| 4       | RC-        | 8       | RC+                   |                  |   |

**Block Diagram**

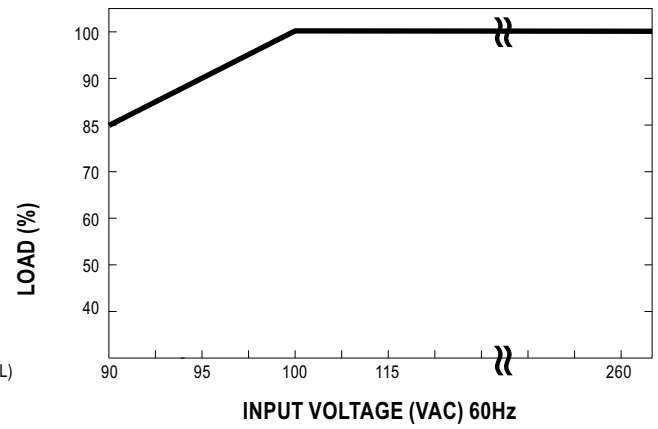
PFC fosc : 100KHz  
PWM fosc : 140KHz



**Derating Curve**



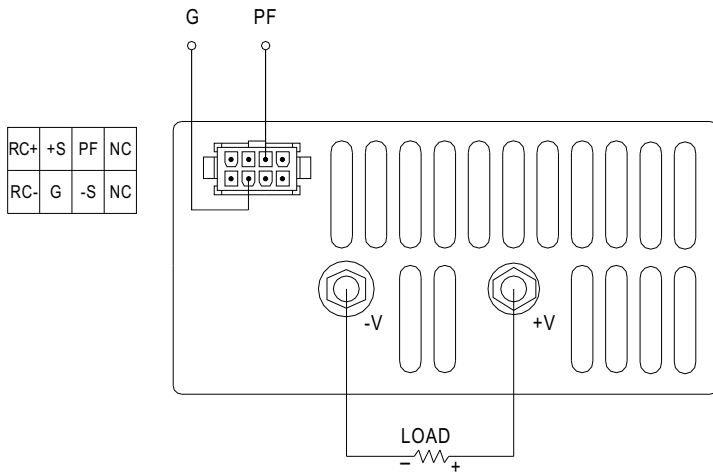
**Static Characteristics**



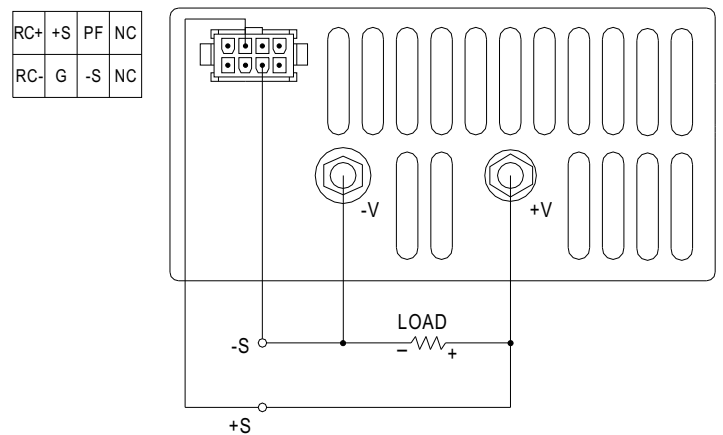
**Control Terminal Instruction Manual**

**Power Fail Signal**

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



**Remote Sensing**



**Remote Control**

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

