



■ Features :

- Universal AC input / Full range
- Built-in active PFC function, PF>0.95
- Protections: Short circuit / Overload/ Over voltage / Over temperature
- Forced air cooling by built-in DC fan
- Built-in cooling Fan ON-OFF control
- Built-in remote ON-OFF control
- Built-in remote sense function
- Fixed switching frequency at 110KHz
- 3 years warranty

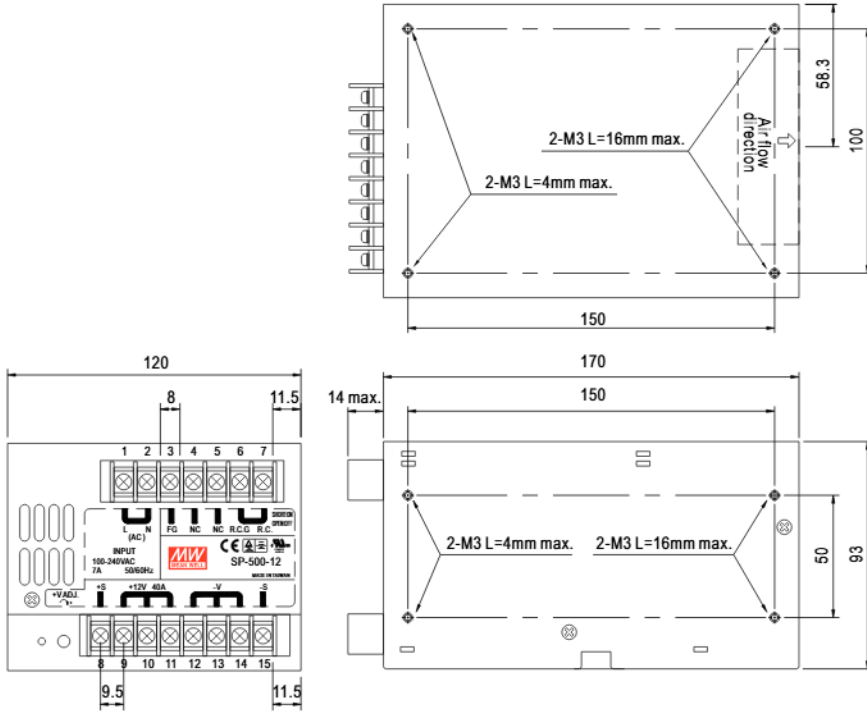


SPECIFICATION

| MODEL                 | SP-500-12  | SP-500-13.5  | SP-500-15      | SP-500-24      | SP-500-27    | SP-500-48  |              |
|-----------------------|--|--|----------------|----------------|--------------|------------|--------------|
| OUTPUT                | DC VOLTAGE   | 12V  | 13.5V          | 15V            | 24V          | 27V        | 48V          |
|                       | RATED CURRENT  | 40A  | 36A            | 32A            | 20A          | 18A        | 10A          |
|                       | CURRENT RANGE  | 0 ~ 40A  | 0 ~ 36A        | 0 ~ 32A        | 0 ~ 20A      | 0 ~ 18A    | 0 ~ 10A      |
|                       | RATED POWER  | 480W   | 486W           | 480W           | 480W         | 486W       | 480W         |
|                       | RIPPLE & NOISE (max.) Note.2   | 240mVp-p   | 240mVp-p       | 240mVp-p       | 240mVp-p     | 200mVp-p   | 300mVp-p     |
|                       | VOLTAGE ADJ. RANGE   | 10 ~ 13.2V   | 12 ~ 15V       | 13.5 ~ 18V     | 20 ~ 26.4V   | 24 ~ 30V   | 41 ~ 56V     |
|                       | VOLTAGE TOLERANCE Note.3   | ±1.0%  | ±1.0%          | ±1.0%          | ±1.0%        | ±1.0%      | ±1.0%        |
|                       | LINE REGULATION  | ±0.5%  | ±0.5%          | ±0.5%          | ±0.5%        | ±0.5%      | ±0.5%        |
|                       | LOAD REGULATION  | ±0.5%  | ±0.5%          | ±0.5%          | ±0.5%        | ±0.5%      | ±0.5%        |
|                       | SETUP, RISE TIME   | 1500ms, 50ms at full load  |                |                |              |            |              |
| HOLD UP TIME (Typ.)   | 24ms at full load  |  |                |                |              |            |              |
| INPUT                 | VOLTAGE RANGE Note.5   | 88 ~ 264VAC  | 124 ~ 370VDC   |                |              |            |              |
|                       | FREQUENCY RANGE  | 47 ~ 63Hz  |                |                |              |            |              |
|                       | POWER FACTOR (Typ.)  | PF>0.95/230VAC   | PF>0.95/115VAC | at full load   |              |            |              |
|                       | EFFICIENCY(Typ.)   | 84%  | 84%            | 83%            | 85.5%        | 86.5%      | 87%          |
|                       | AC CURRENT (Typ.)  | 7A/115VAC  | 3.5A/230VAC    |                |              |            |              |
|                       | INRUSH CURRENT (Typ.)  | 18A/115VAC   | 36A/230VAC     |                |              |            |              |
|                       | LEAKAGE CURRENT  | <3.5mA/240VAC  |                |                |              |            |              |
| PROTECTION            | OVERLOAD   | 105 ~ 135% rated output power<br>Protection type : Constant current limiting, recovers automatically after fault condition is removed                      |                |                |              |            |              |
|                       | OVER VOLTAGE   | 13.8 ~ 16.2V   | 15.5 ~ 18.2V   | 18 ~ 21V       | 27.6 ~ 32.4V | 31 ~ 36.5V | 57.6 ~ 67.2V |
|                       | FAN CONTROL, O.T.P.  | RTH1 or RTH2 ≥ 50°C FAN ON, ≤45°C FAN OFF, ≥70°C output shutdown<br>Protection type : Hiccup mode, recovers automatically after fault condition is removed |                |                |              |            |              |
| FUNCTION              | REMOTE CONTROL   | RC+/RC-: Short = power on ; Open = power off   |                |                |              |            |              |
| ENVIRONMENT           | WORKING TEMP.  | -10 ~ +50°C (Refer to output load derating curve)  |                |                |              |            |              |
|                       | WORKING HUMIDITY   | 20 ~ 90% RH non-condensing   |                |                |              |            |              |
|                       | STORAGE TEMP., HUMIDITY  | -20 ~ +85°C, 10 ~ 95% RH   |                |                |              |            |              |
|                       | TEMP. COEFFICIENT  | ±0.03%/°C (0 ~ 50°C)   |                |                |              |            |              |
|                       | VIBRATION  | 10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes  |                |                |              |            |              |
| SAFETY & EMC (Note 4) | SAFETY STANDARDS   | UL60950-1, TUV EN60950-1, CCC GB4943( for 24V only) 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 / 25°C / 70% RH   |                |                |              |            |              |
|                       | EMI CONDUCTION & RADIATION   | Compliance to 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, light industry level, criteria A   |                |                |              |            |              |
| OTHERS                | MTBF   | 133.4K hrs min. MIL-HDBK-217F (25°C)   |                |                |              |            |              |
|                       | DIMENSION  | 170*120*93mm (L*W*H)   |                |                |              |            |              |
|                       | PACKING  | 1.9Kg; 8pcs/15.5Kg/1.06CUFT  |                |                |              |            |              |
| NOTE                  | <p>1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.</p> <p>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.</p> <p>3. Tolerance : includes set up tolerance, line regulation and load regulation.</p> <p>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. For guidance on how to perform these EMC tests, please refer to "EMI testing of component power supplies." (as available on <a href="http://www.meanwell.com">http://www.meanwell.com</a>)</p> <p>5. Derating may be needed under low input voltages. Please check the derating curve for more details.</p> |  |                |                |              |            |              |

**Mechanical Specification**

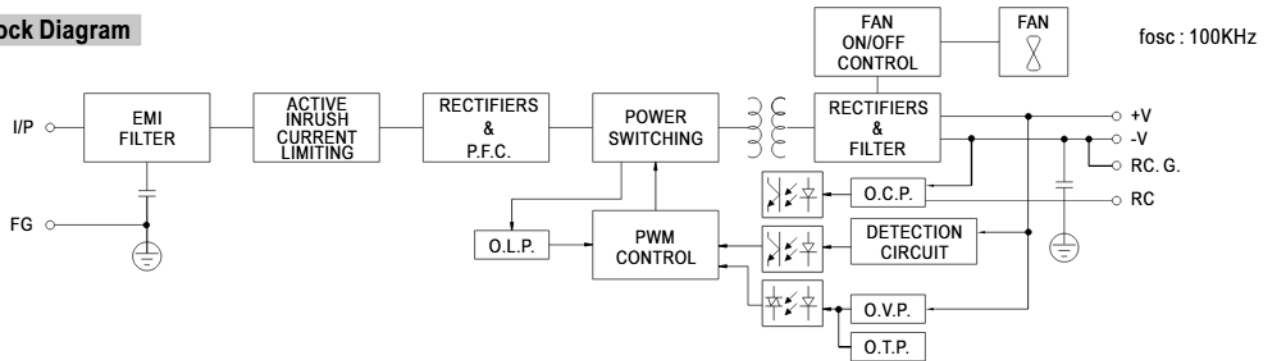
Case No. 910 Unit:mm



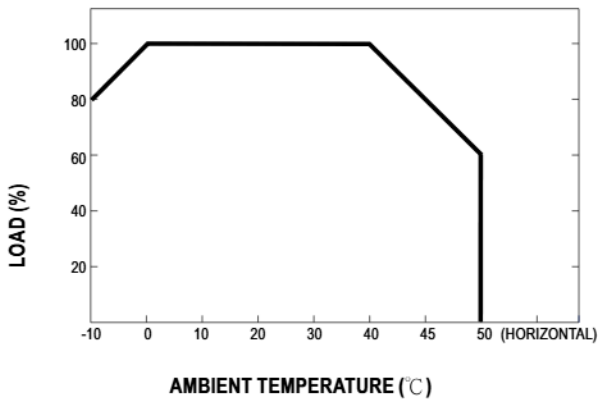
Terminal Pin No. Assignment

| Pin No. | Assignment | Pin No. | Assignment   |
|---------|------------|---------|--------------|
| 1       | AC/L       | 7       | R.C.         |
| 2       | AC/N       | 8       | +S           |
| 3       | FG         | 9~11    | DC OUTPUT +V |
| 4,5     | NC         | 12~14   | DC OUTPUT -V |
| 6       | R.C.G      | 15      | -S           |

**Block Diagram**



**Derating Curve**



**Output Derating VS Input Voltage**

