



240W Single Output with PFC Function

SP-240 series



■ 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 fan ON / OFF control
- LED indicator for power on
- Fixed switching frequency at 90KHz
- 3 years warranty



SPECIFICATION

| MODEL | SP-240-5 | SP-240-7.5 | SP-240-12 | SP-240-15 | SP-240-24 | SP-240-30 | SP-240-48 | |
|-----------------------|---|---|-------------|--------------|------------|------------|------------|--------------|
| OUTPUT | DC VOLTAGE | 5V | 7.5V | 12V | 15V | 24V | 30V | 48V |
| | RATED CURRENT | 45A | 32A | 20A | 16A | 10A | 8A | 5A |
| | CURRENT RANGE | 0 ~ 45A | 0 ~ 32A | 0 ~ 20A | 0 ~ 16A | 0 ~ 10A | 0 ~ 8A | 0 ~ 5A |
| | RATED POWER | 225W | 240W | 240W | 240W | 240W | 240W | 240W |
| | RIPPLE & NOISE (max.) Note.2 | 150mVp-p | 150mVp-p | 150mVp-p | 150mVp-p | 150mVp-p | 150mVp-p | 150mVp-p |
| | VOLTAGE ADJ. RANGE | 4 ~ 6V | 6 ~ 9V | 10 ~ 14V | 12 ~ 18V | 20 ~ 28V | 27 ~ 33V | 41 ~ 56V |
| | VOLTAGE TOLERANCE Note.3 | ±2.0% | ±2.0% | ±1.0% | ±1.0% | ±1.0% | ±1.0% | ±1.0% |
| | LINE REGULATION | ±0.5% | ±0.5% | ±0.3% | ±0.3% | ±0.2% | ±0.2% | ±0.2% |
| | LOAD REGULATION | ±1.0% | ±1.0% | ±0.5% | ±0.5% | ±0.5% | ±0.5% | ±0.5% |
| | SETUP, RISE TIME | 800ms, 50ms/230VAC 1500ms, 50ms/115VAC at full load | | | | | | |
| HOLD UP TIME (Typ.) | 20ms/230VAC 20ms/115VAC at full load | | | | | | | |
| INPUT | VOLTAGE RANGE Note.5 | 88 ~ 264VAC 124 ~ 370VDC | | | | | | |
| | FREQUENCY RANGE | 47 ~ 63Hz | | | | | | |
| | POWER FACTOR (Typ.) | PF>0.95/230VAC PF>0.98/115VAC at full load | | | | | | |
| | EFFICIENCY (Typ.) | 79% | 83% | 86% | 86% | 87% | 88% | 89% |
| | AC CURRENT (Typ.) | 3.6A/115VAC 1.8A/230VAC | | | | | | |
| | INRUSH CURRENT (Typ.) | 25A/115VAC 40A/230VAC | | | | | | |
| | LEAKAGE CURRENT | <2mA / 240VAC | | | | | | |
| PROTECTION | OVERLOAD | 105 ~ 135% rated output power Protection type : Hiccup mode, recovers automatically after fault condition is removed | | | | | | |
| | OVER VOLTAGE | 6.3 ~ 7.5V | 9.4 ~ 10.9V | 14.7 ~ 17.5V | 19 ~ 22.5V | 29.5 ~ 35V | 34.7 ~ 41V | 57.6 ~ 67.2V |
| | OVER TEMPERATURE | 90°C ±5°C (5V,7.5V), 85°C ±5°C (12V,15V,24V,30V,48V) (TSW1 : detect on heatsink of power transistor) Protection type : Shut down o/p voltage, recovers automatically after temperature goes down | | | | | | |
| FUNCTION | FAN CONTROL | RTH2 ≥ 40°C FAN ON, ≤ 35°C FAN OFF (Typ.) | | | | | | |
| ENVIRONMENT | WORKING TEMP. | -20 ~ +70°C (Refer to "Derating Curve") | | | | | | |
| | WORKING HUMIDITY | 20 ~ 90% RH non-condensing | | | | | | |
| | STORAGE TEMP., HUMIDITY | -40 ~ +85°C, 10 ~ 95% RH | | | | | | |
| | TEMP. COEFFICIENT | ±0.03%/°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 / 25°C / 70% RH | | | | | | |
| | EMC EMISSION | Compliance to EN55022 (CISPR22) Class B, EN61000-3-2,-3 | | | | | | |
| | EMC IMMUNITY | Compliance to EN61000-4-2,3,4,5,6,8,11, EN55024, light industry level, criteria A | | | | | | |
| OTHERS | MTBF | 284K hrs min. MIL-HDBK-217F (25°C) | | | | | | |
| | DIMENSION | 190*93*50mm (L*W*H) | | | | | | |
| | PACKING | 0.8Kg; 18pcs/15.4Kg/1.04CUFT | | | | | | |
| NOTE | <ol style="list-style-type: none"> 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. For guidance on how to perform these EMC tests, please refer to "EMI testing of component power supplies." (as available on http://www.meanwell.com) 5. Derating may be needed under low input voltages. Please check the derating curve for more details. | | | | | | | |

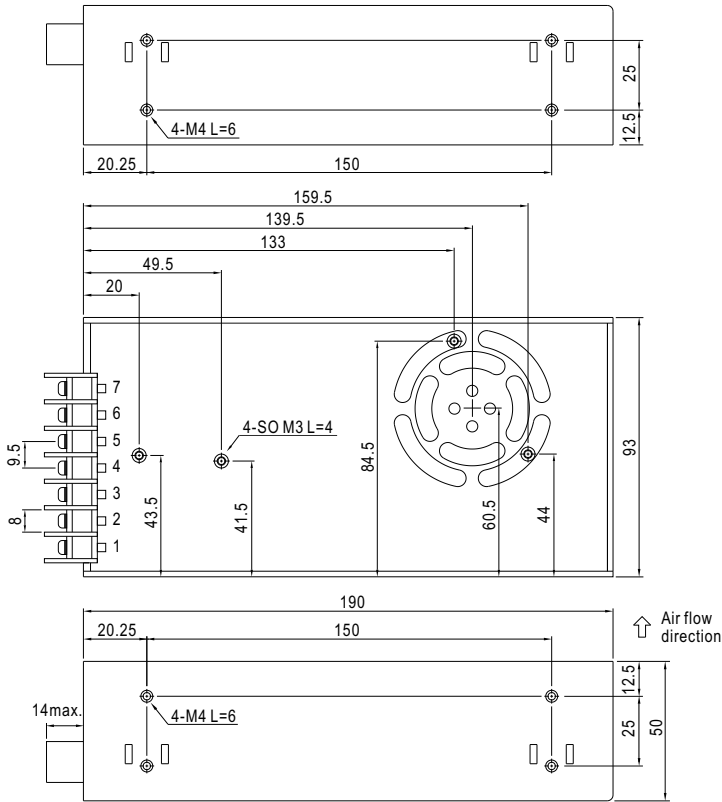


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Mechanical Specification

Case No.987A Unit:mm

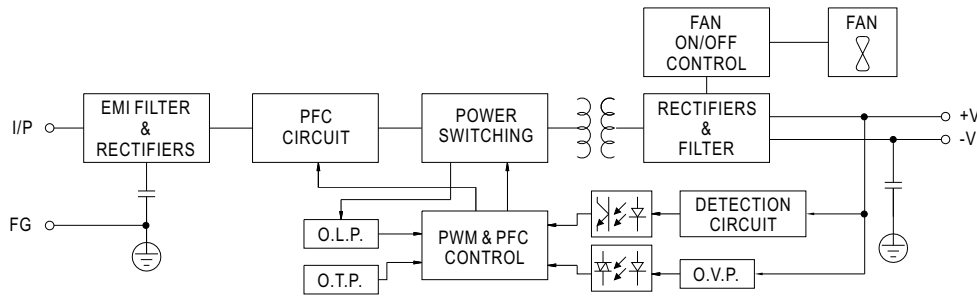


Terminal Pin No. Assignment

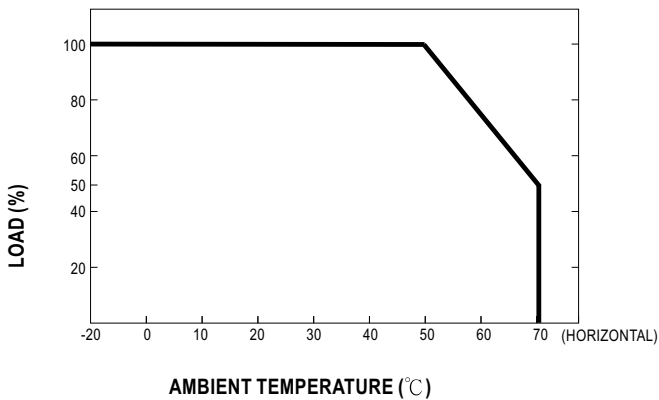
| Pin No. | Assignment | Pin No. | Assignment |
|---------|------------|---------|--------------|
| 1 | AC/L | 4,5 | DC OUTPUT -V |
| 2 | AC/N | 6,7 | DC OUTPUT +V |
| 3 | FG \perp | | |

Block Diagram

fosc : 90KHz



Derating Curve



Static Characteristics

