



320W Single Output with PFC Function

RSP-320 series



■ Features :

- Universal AC input / Full range
- Built-in active PFC function, PF>0.95
- High efficiency up to 90%
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Forced air cooling by built-in DC Fan with fan speed control function
- 1U low profile 30mm
- Optional conformal coating models (RSP-320-□CC)
- LED indicator for power on
- 3 years warranty



SPECIFICATION

| MODEL | RSP-320-2.5 | RSP-320-3.3 | RSP-320-4 | RSP-320-5 | RSP-320-7.5 | RSP-320-12 | |
|-----------------------|---|---|-------------|-----------------------------|--------------|-------------|--------------|
| OUTPUT | DC VOLTAGE | 2.5V | 3.3V | 4V | 5V | 7.5V | 12V |
| | RATED CURRENT | 60A | 60A | 60A | 60A | 40A | 26.7A |
| | CURRENT RANGE | 0 ~ 60A | 0 ~ 60A | 0 ~ 60A | 0 ~ 60A | 0 ~ 40A | 0 ~ 26.7A |
| | RATED POWER | 150W | 198W | 240W | 300W | 300W | 320.4W |
| | RIPPLE & NOISE (max.) Note.2 | 100mVp-p | 100mVp-p | 100mVp-p | 150mVp-p | 150mVp-p | 150mVp-p |
| | VOLTAGE ADJ. RANGE | 2.35 ~ 2.85V | 2.97 ~ 3.8V | 3.7 ~ 4.3V | 4.5 ~ 5.5V | 6 ~ 9V | 10 ~ 13.2V |
| | VOLTAGE TOLERANCE Note.3 | ±2.0% | ±2.0% | ±2.0% | ±2.0% | ±2.0% | ±1.0% |
| | LINE REGULATION | ±0.5% | ±0.5% | ±0.5% | ±0.5% | ±0.5% | ±0.3% |
| | LOAD REGULATION | ±1.5% | ±1.5% | ±1.0% | ±1.0% | ±1.0% | ±0.5% |
| | SETUP, RISE TIME | 1500ms, 50ms/230VAC 3000ms, 50ms/115VAC at full load | | | | | |
| HOLD UP TIME (Typ.) | 8ms at full load 230VAC /115VAC | | | | | | |
| INPUT | VOLTAGE RANGE Note.4 | 88 ~ 264VAC 124 ~ 370VDC | | | | | |
| | FREQUENCY RANGE | 47 ~ 63Hz | | | | | |
| | POWER FACTOR (Typ.) | PF>0.95/230VAC | | PF>0.98/115VAC at full load | | | |
| | EFFICIENCY (Typ.) | 75.5% | 79.5% | 81% | 83% | 88% | 88% |
| | AC CURRENT (Typ.) | 2.7A/115VAC | 1.5A/230VAC | | 4A/115VAC | 2A/230VAC | |
| | INRUSH CURRENT (Typ.) | 20A/115VAC | 40A/230VAC | | | | |
| | LEAKAGE CURRENT | <1mA / 240VAC | | | | | |
| PROTECTION | OVERLOAD | 105 ~ 135% rated output power Protection type : Hiccup mode, recovers automatically after fault condition is removed | | | | | |
| | OVER VOLTAGE | 2.88 ~ 3.38V | 3.8 ~ 4.5V | 4.5 ~ 5.3V | 5.75 ~ 6.75V | 9.4 ~ 10.9V | 13.8 ~ 16.2V |
| | OVER TEMPERATURE | Shut down o/p voltage, recovers automatically after temperature goes down | | | | | |
| ENVIRONMENT | WORKING TEMP. | -30 ~ +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) | | | | | |
| SAFETY & EMC (Note 5) | VIBRATION | 10 ~ 500Hz, 2G 10min./1 cycle, 60min. each along X, Y, Z axes | | | | | |
| | SAFETY STANDARDS | UL60950-1, TUV EN60950-1, CCC GB4943 approved | | | | | |
| | WITHSTAND VOLTAGE | I/P-O/P:3KVAC I/P-FG:2KVAC 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 EN55032 (CISPR32) Class B, EN61000-3-2,-3, GB9254 class B, GB17625.1 | | | | | |
| | EMC IMMUNITY | Compliance to EN61000-4-2,3,4,5,6,8,11, EN55024, light industry level, criteria A | | | | | |
| OTHERS | MTBF | 206.5K hrs min. MIL-HDBK-217F (25°C) | | | | | |
| | DIMENSION | 215*115*30mm (L*W*H) | | | | | |
| | PACKING | 0.9Kg; 15pcs/14.5Kg/0.78CUFT | | | | | |
| 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. Derating may be needed under low input voltages. Please check the derating curve for more details. 5. The power supply is considered a component which will be installed into a final equipment. All the EMC tests are been executed by mounting the unit on a 360mm*360mm metal plate with 1mm of thickness. 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) 6. For charging related applications, please consult Mean Well for details. 7. Strongly recommended that external output capacitance should not exceed 5000uF. (Only for: RSP-320-2.5/-3.3/-4/-5/-7.5/-12/-13.5/-15) | | | | | | |



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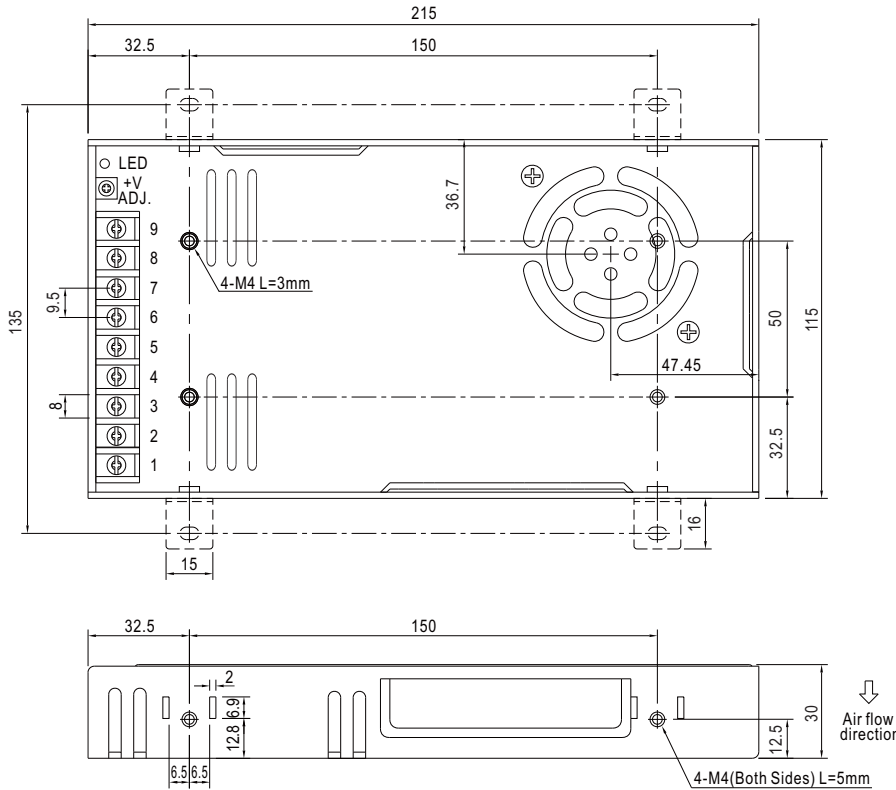


SPECIFICATION

| MODEL | RSP-320-13.5 | RSP-320-15 | RSP-320-24 | RSP-320-27 | RSP-320-36 | RSP-320-48 | |
|-----------------------|--|---|--------------|-----------------------------|--------------|--------------|------------|
| OUTPUT | DC VOLTAGE | 13.5V | 15V | 24V | 27V | 36V | 48V |
| | RATED CURRENT | 23.8A | 21.4A | 13.4A | 11.9A | 8.9A | 6.7A |
| | CURRENT RANGE | 0 ~ 23.8A | 0 ~ 21.4A | 0 ~ 13.4A | 0 ~ 11.9A | 0 ~ 8.9A | 0 ~ 6.7A |
| | RATED POWER | 321.3W | 321W | 321.6W | 321.3W | 320.4W | 321.6W |
| | RIPPLE & NOISE (max.) Note.2 | 150mVp-p | 150mVp-p | 150mVp-p | 200mVp-p | 220mVp-p | 240mVp-p |
| | VOLTAGE ADJ. RANGE | 12 ~ 15V | 13.5 ~ 18V | 20 ~ 26.4V | 26 ~ 31.5V | 32.4 ~ 39.6V | 41 ~ 56V |
| | VOLTAGE TOLERANCE Note.3 | ±1.0% | ±1.0% | ±1.0% | ±1.0% | ±1.0% | ±1.0% |
| | LINE REGULATION | ±0.3% | ±0.3% | ±0.2% | ±0.2% | ±0.2% | ±0.2% |
| | LOAD REGULATION | ±0.5% | ±0.5% | ±0.5% | ±0.5% | ±0.5% | ±0.5% |
| | SETUP, RISE TIME | 1500ms, 50ms/230VAC 3000ms, 50ms/115VAC at full load | | | | | |
| HOLD UP TIME (Typ.) | 8ms at full load 230VAC /115VAC | | | | | | |
| INPUT | VOLTAGE RANGE Note.4 | 88 ~ 264VAC | 124 ~ 370VDC | | | | |
| | FREQUENCY RANGE | 47 ~ 63Hz | | | | | |
| | POWER FACTOR (Typ.) | PF>0.95/230VAC | | PF>0.98/115VAC at full load | | | |
| | EFFICIENCY (Typ.) | 88% | 88.5% | 89% | 89% | 89.5% | 90% |
| | AC CURRENT (Typ.) | 4A/115VAC | 2A/230VAC | | | | |
| | INRUSH CURRENT (Typ.) | 20A/115VAC | 40A/230VAC | | | | |
| | LEAKAGE CURRENT | <1mA / 240VAC | | | | | |
| PROTECTION | OVERLOAD | 105 ~ 135% rated output power Protection type : Hiccup mode, recovers automatically after fault condition is removed | | | | | |
| | OVER VOLTAGE | 15.7 ~ 18.4V | 18.8 ~ 21.8V | 27.6 ~ 32.4V | 32.9 ~ 38.3V | 41.4 ~ 48.6V | 58.4 ~ 68V |
| | OVER TEMPERATURE | Shut down o/p voltage, recovers automatically after temperature goes down | | | | | |
| ENVIRONMENT | WORKING TEMP. | -30 ~ +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 | | | | | |
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| | WITHSTAND VOLTAGE | I/P-O/P:3KVAC I/P-FG:2KVAC 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 EN55032 (CISPR32) Class B, EN61000-3-2,-3, GB9254 class B, GB17625.1 | | | | | |
| | EMC IMMUNITY | Compliance to EN61000-4-2,3,4,5,6,8,11, EN55024, light industry level, criteria A | | | | | |
| OTHERS | MTBF | 206.5K hrs min. MIL-HDBK-217F (25°C) | | | | | |
| | DIMENSION | 215*115*30mm (L*W*H) | | | | | |
| | PACKING | 0.9Kg; 15pcs/14.5Kg/0.78CUFT | | | | | |
| 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. Derating may be needed under low input voltages. Please check the derating curve for more details. 5. 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) 6. For charging related applications, please consult Mean Well for details. 7. Strongly recommended that external output capacitance should not exceed 5000uF. (Only for: RSP-320-2.5/-3.3/-4/-5/-7.5/-12/-13.5/-15) | | | | | | |

Mechanical Specification

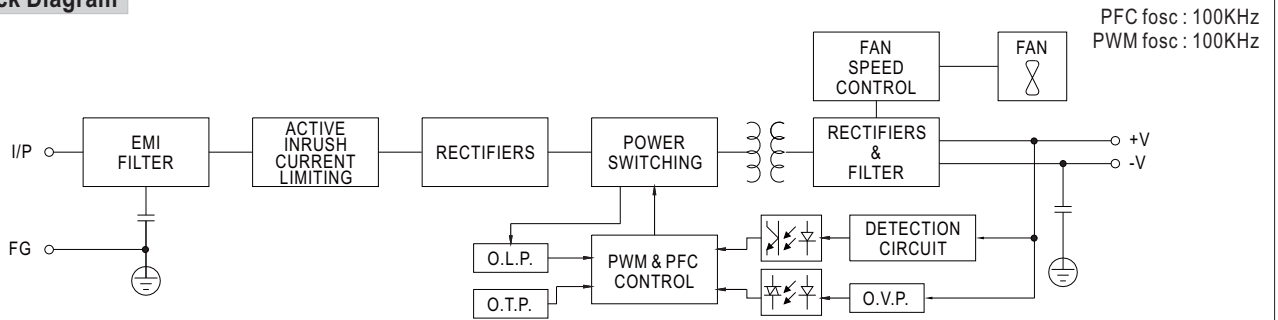
Case No.207A Unit:mm



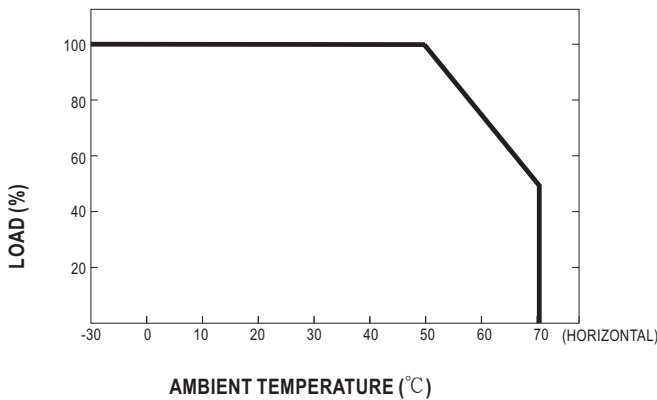
Terminal Pin No. Assignment :

| Pin No. | Assignment | Pin No. | Assignment |
|---------|------------|---------|--------------|
| 1 | AC/L | 4~6 | DC OUTPUT -V |
| 2 | AC/N | 7~9 | DC OUTPUT +V |
| 3 | FG \perp | | |

Block Diagram



Derating Curve



Static Characteristics

