



## 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
- Cooling by free air convection
- 1U low profile 30mm
- Optional conformal coating models (RSP-200-□CC)
- LED indicator for power on
- 3 years warranty



## SPECIFICATION

| MODEL                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | RSP-200-2.5                                                                                                                    | RSP-200-3.3  | RSP-200-4                   | RSP-200-5   | RSP-200-7.5 | RSP-200-12   |
|-----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|--------------|-----------------------------|-------------|-------------|--------------|
| OUTPUT                                  | DC VOLTAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 2.5V                                                                                                                           | 3.3V         | 4V                          | 5V          | 7.5V        | 12V          |
|                                         | RATED CURRENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 40A                                                                                                                            | 40A          | 40A                         | 40A         | 26.7A       | 16.7A        |
|                                         | CURRENT RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 0 ~ 40A                                                                                                                        | 0 ~ 40A      | 0 ~ 40A                     | 0 ~ 40A     | 0 ~ 26.7A   | 0 ~ 16.7A    |
|                                         | RATED POWER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 100W                                                                                                                           | 132W         | 160W                        | 200W        | 200.25W     | 200.4W       |
|                                         | RIPPLE & NOISE (max.) <small>Note.2</small>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 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 <small>Note.3</small>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | ±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 <small>Note.4</small>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 88 ~ 264VAC                                                                                                                    | 124 ~ 370VDC |                             |             |             |              |
|                                         | FREQUENCY RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 47 ~ 63Hz                                                                                                                      |              |                             |             |             |              |
|                                         | POWER FACTOR (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | PF>0.95/230VAC                                                                                                                 |              | PF>0.98/115VAC at full load |             |             |              |
|                                         | EFFICIENCY (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 81.5%                                                                                                                          | 84%          | 85.5%                       | 87%         | 89%         | 89%          |
|                                         | AC CURRENT (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 2A/115VAC                                                                                                                      | 1.1A/230VAC  |                             | 3.5A/115VAC | 1.7A/230VAC |              |
|                                         | INRUSH CURRENT (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 20A/115VAC                                                                                                                     | 40A/230VAC   |                             |             |             |              |
|                                         | LEAKAGE CURRENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <1mA / 240VAC                                                                                                                  |              |                             |             |             |              |
| PROTECTION                              | OVERLOAD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 105 ~ 135% rated output power<br>Protection type : Hiccup mode, recovers automatically after fault condition is removed        |              |                             |             |             |              |
|                                         | OVER VOLTAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 2.88 ~ 3.5V                                                                                                                    | 3.8 ~ 4.62V  | 4.5 ~ 5.6V                  | 5.75 ~ 7V   | 9.4 ~ 10.9V | 13.8 ~ 16.2V |
|                                         | OVER TEMPERATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 110℃±5℃(TSW1) detect on heatsink of main power output choke<br>Protection type : Shut down o/p voltage, re-power on to recover |              |                             |             |             |              |
|                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Protection type : Shut down o/p voltage, recovers automatically after temperature goes down                                    |              |                             |             |             |              |
| ENVIRONMENT                             | WORKING TEMP.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | -30 ~ +70℃ (Refer to "Derating Curve")                                                                                         |              |                             |             |             |              |
|                                         | WORKING HUMIDITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 20 ~ 90% RH non-condensing                                                                                                     |              |                             |             |             |              |
|                                         | STORAGE TEMP., HUMIDITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | -40 ~ +85℃, 10 ~ 95% RH                                                                                                        |              |                             |             |             |              |
|                                         | TEMP. COEFFICIENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | ±0.03%/℃ (0 ~ 45℃ )                                                                                                            |              |                             |             |             |              |
|                                         | VIBRATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes                                                                   |              |                             |             |             |              |
| SAFETY & EMC<br><small>(Note 5)</small> | SAFETY STANDARDS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | UL60950-1, TUV EN60950-1 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℃ / 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 224.5K hrs min.    MIL-HDBK-217F (25℃)                                                                                         |              |                             |             |             |              |
|                                         | DIMENSION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 215*115*30mm (L*W*H)                                                                                                           |              |                             |             |             |              |
|                                         | PACKING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 0.72Kg; 15pcs/11.8Kg/0.78CUFT                                                                                                  |              |                             |             |             |              |
| NOTE                                    | 1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25℃ of ambient temperature.<br>2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.<br>3. Tolerance : includes set up tolerance, line regulation and load regulation.<br>4. Derating may be needed under low input voltages. Please check the derating curve for more details.<br>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."<br>(as available on <a href="http://www.meanwell.com">http://www.meanwell.com</a> ) |                                                                                                                                |              |                             |             |             |              |



## 200W Single Output with PFC Function

## RSP-200 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
- Cooling by free air convection
- 1U low profile 30mm
- Optional conformal coating models (RSP-200-□CC)
- LED indicator for power on
- 3 years warranty



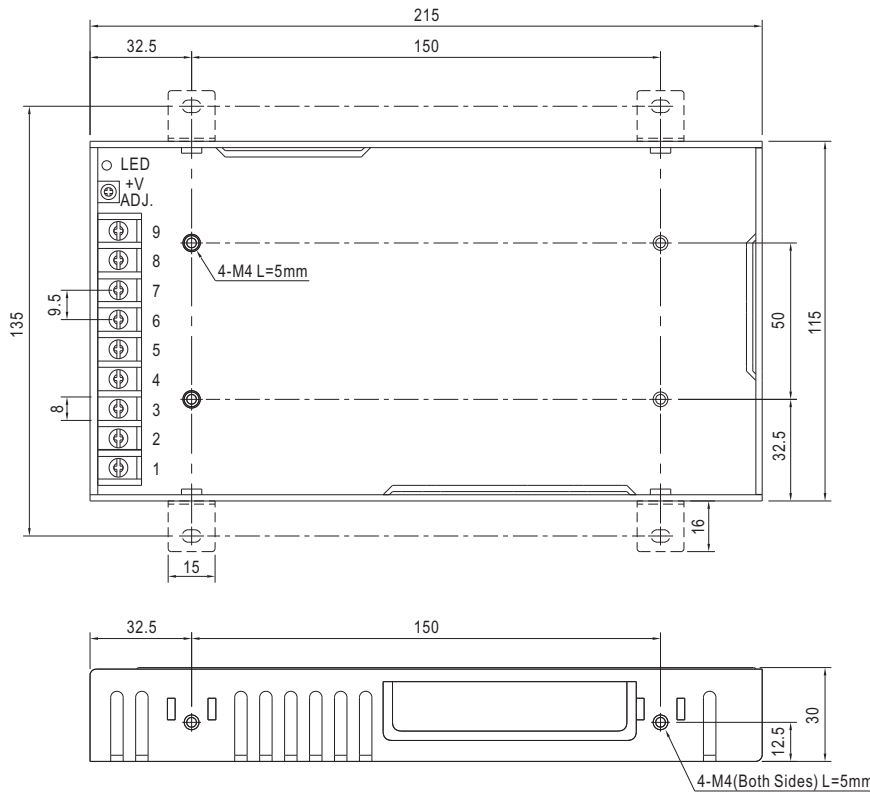
### SPECIFICATION

| MODEL                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | RSP-200-13.5                                                                                                            | RSP-200-15   | RSP-200-24                  | RSP-200-27   | RSP-200-36   | RSP-200-48 |
|-----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|--------------|-----------------------------|--------------|--------------|------------|
| OUTPUT                                  | DC VOLTAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 13.5V                                                                                                                   | 15V          | 24V                         | 27V          | 36V          | 48V        |
|                                         | RATED CURRENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 14.9A                                                                                                                   | 13.4A        | 8.4A                        | 7.5A         | 5.56A        | 4.2A       |
|                                         | CURRENT RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 0 ~ 14.9A                                                                                                               | 0 ~ 13.4A    | 0 ~ 8.4A                    | 0 ~ 7.5A     | 0 ~ 5.56A    | 0 ~ 4.2A   |
|                                         | RATED POWER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 201.15W                                                                                                                 | 201W         | 201.6W                      | 202.5W       | 200.16W      | 201.6W     |
|                                         | RIPPLE & NOISE (max.) <small>Note.2</small>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 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 <small>Note.3</small>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | ±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 <small>Note.4</small>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 88 ~ 264VAC                                                                                                             | 124 ~ 370VDC |                             |              |              |            |
|                                         | FREQUENCY RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 47 ~ 63Hz                                                                                                               |              |                             |              |              |            |
|                                         | POWER FACTOR (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | PF>0.95/230VAC                                                                                                          |              | PF>0.98/115VAC at full load |              |              |            |
|                                         | EFFICIENCY (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 89%                                                                                                                     | 89.5%        | 89.5%                       | 89%          | 90%          | 90%        |
|                                         | AC CURRENT (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 3.5A/115VAC                                                                                                             |              | 1.7A/230VAC                 |              |              |            |
|                                         | INRUSH CURRENT (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 20A/115VAC                                                                                                              |              | 40A/230VAC                  |              |              |            |
|                                         | LEAKAGE CURRENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <1mA / 240VAC                                                                                                           |              |                             |              |              |            |
| PROTECTION                              | OVERLOAD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 105 ~ 135% rated output power<br>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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 110℃ ±5℃ (13.5V, 15V), 100℃ ±5℃ (24V ~ 48V)(TSW1) detect on heatsink of main power output choke                         |              |                             |              |              |            |
|                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Protection type : Shut down o/p voltage, recovers automatically after temperature goes down                             |              |                             |              |              |            |
| ENVIRONMENT                             | WORKING TEMP.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | -30 ~ +70℃ (Refer to "Derating Curve")                                                                                  |              |                             |              |              |            |
|                                         | WORKING HUMIDITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 20 ~ 90% RH non-condensing                                                                                              |              |                             |              |              |            |
|                                         | STORAGE TEMP., HUMIDITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | -40 ~ +85℃, 10 ~ 95% RH                                                                                                 |              |                             |              |              |            |
|                                         | TEMP. COEFFICIENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | ±0.03%/℃ (0 ~ 45℃ )                                                                                                     |              |                             |              |              |            |
|                                         | VIBRATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes                                                            |              |                             |              |              |            |
| SAFETY & EMC<br><small>(Note 5)</small> | SAFETY STANDARDS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | UL60950-1, TUV EN60950-1 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℃ / 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 224.5K hrs min.    MIL-HDBK-217F (25℃)                                                                                  |              |                             |              |              |            |
|                                         | DIMENSION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 215*115*30mm (L*W*H)                                                                                                    |              |                             |              |              |            |
|                                         | PACKING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 0.72Kg; 15pcs/11.8Kg/0.78CUFT                                                                                           |              |                             |              |              |            |
| NOTE                                    | 1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25℃ of ambient temperature.<br>2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.<br>3. Tolerance : includes set up tolerance, line regulation and load regulation.<br>4. Derating may be needed under low input voltages. Please check the derating curve for more details.<br>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."<br>(as available on <a href="http://www.meanwell.com">http://www.meanwell.com</a> ) |                                                                                                                         |              |                             |              |              |            |

## Mechanical Specification

Case No.207B

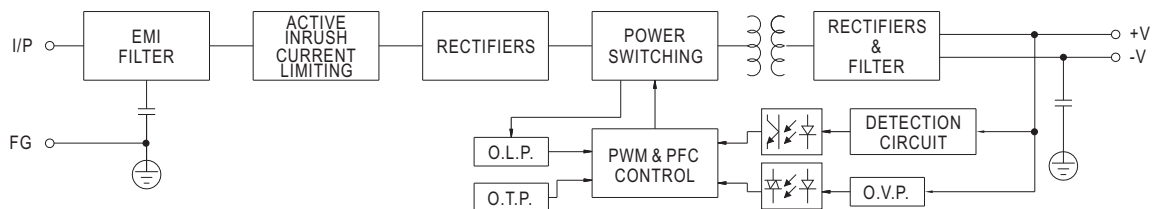
Unit:mm



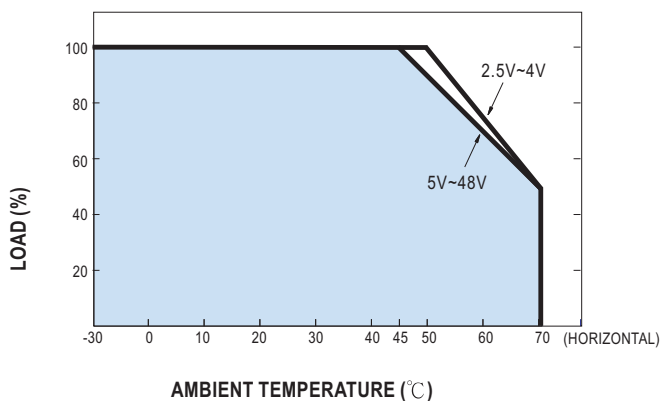
Terminal Pin No. Assignment :

| 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

PFC fosc : 100KHz  
PWM fosc : 100KHz


## Derating Curve



## Static Characteristics

