



#### ■ Features :

- Universal AC input / Full range
- Built-in active PFC function, PF>0.93
- Protections: Short circuit / Overload / Over voltage
- Built-in constant current limiting circuit
- Low profile: 33mm thickness
- LED indicator for power on
- 100% full load burn-in test
- Fixed switching frequency at PFC:67KHz PWM:134KHz
- 3 years warranty

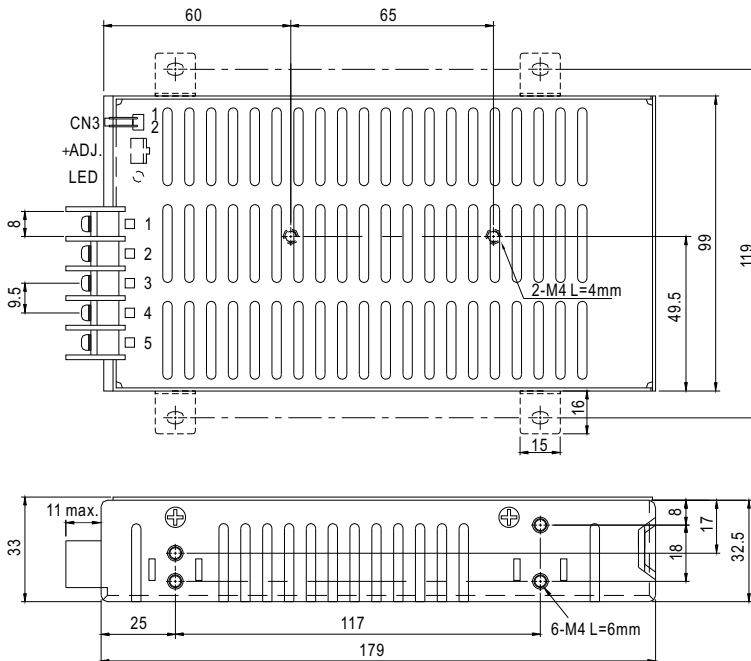


#### SPECIFICATION

| MODEL                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | SP-75-3.3                                                                                                                             | SP-75-5      | SP-75-7.5                | SP-75-12     | SP-75-13.5     | SP-75-15       | SP-75-24     | SP-75-27       | SP-75-48     |  |
|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------------------|--------------|----------------|----------------|--------------|----------------|--------------|--|
| OUTPUT                   | DC VOLTAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 3.3V                                                                                                                                  | 5V           | 7.5V                     | 12V          | 13.5V          | 15V            | 24V          | 27V            | 48V          |  |
|                          | RATED CURRENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 15A                                                                                                                                   | 15A          | 10A                      | 6.3A         | 5.6A           | 5A             | 3.2A         | 2.8A           | 1.6A         |  |
|                          | CURRENT RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 0 ~ 15A                                                                                                                               | 0 ~ 15A      | 0 ~ 10A                  | 0 ~ 6.3A     | 0 ~ 5.6A       | 0 ~ 5A         | 0 ~ 3.2A     | 0 ~ 2.8A       | 0 ~ 1.6A     |  |
|                          | RATED POWER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 49.5W                                                                                                                                 | 75W          | 75W                      | 75.6W        | 75.6W          | 75W            | 76.8W        | 75.6W          | 76.8W        |  |
|                          | RIPPLE & NOISE (max.) <small>Note.2</small>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 80mVp-p                                                                                                                               | 80mVp-p      | 80mVp-p                  | 80mVp-p      | 80mVp-p        | 80mVp-p        | 100mVp-p     | 100mVp-p       | 100mVp-p     |  |
|                          | VOLTAGE ADJ. RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 3.14 ~ 3.63V                                                                                                                          | 4.75 ~ 5.5V  | 7.13 ~ 8.25V             | 11.4 ~ 13.2V | 12.8 ~ 14.9V   | 14.3 ~ 16.5V   | 22.8 ~ 26.4V | 25.7 ~ 29.7V   | 45.6 ~ 52.8V |  |
|                          | VOLTAGE TOLERANCE <small>Note.3</small>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 2.0%                                                                                                                                  | 2.0%         | 2.0%                     | 2.0%         | 2.0%           | 2.0%           | 1.0%         | 1.0%           | 1.0%         |  |
|                          | LINE REGULATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 0.5%                                                                                                                                  | 0.5%         | 0.5%                     | 0.5%         | 0.5%           | 0.5%           | 0.5%         | 0.5%           | 0.5%         |  |
|                          | LOAD REGULATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 1.0%                                                                                                                                  | 1.0%         | 1.0%                     | 0.5%         | 0.5%           | 0.5%           | 0.5%         | 0.5%           | 0.5%         |  |
|                          | SETUP, RISE TIME                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 600ms, 60ms at full load                                                                                                              |              |                          |              |                |                |              |                |              |  |
| HOLD UP TIME (Typ.)      | 36ms at full load                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                       |              |                          |              |                |                |              |                |              |  |
| INPUT                    | VOLTAGE RANGE <small>Note.5</small>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 85 ~ 264VAC                                                                                                                           |              | 120 ~ 370VDC             |              |                |                |              |                |              |  |
|                          | FREQUENCY RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 47 ~ 63Hz                                                                                                                             |              |                          |              |                |                |              |                |              |  |
|                          | POWER FACTOR (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | PF>0.93/230VAC                                                                                                                        |              | 0.96/115VAC at full load |              |                |                |              |                |              |  |
|                          | EFFICIENCY (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 68%                                                                                                                                   | 72%          | 74%                      | 77%          | 78%            | 79%            | 80%          | 80%            | 80%          |  |
|                          | AC CURRENT (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 1.3A/115VAC                                                                                                                           |              | 0.7A/230VAC              |              |                |                |              |                |              |  |
|                          | INRUSH CURRENT (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | COLD START 30A/230VAC                                                                                                                 |              |                          |              |                |                |              |                |              |  |
| LEAKAGE CURRENT          | <2mA / 240VAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                       |              |                          |              |                |                |              |                |              |  |
| PROTECTION               | OVERLOAD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 105 ~ 150% rated output power<br>Protection type : Constant current limiting, recovers automatically after fault condition is removed |              |                          |              |                |                |              |                |              |  |
|                          | OVER VOLTAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 3.8 ~ 4.46V                                                                                                                           | 5.75 ~ 6.75V | 8.63 ~ 10.13V            | 13.8 ~ 16.2V | 15.53 ~ 18.23V | 17.25 ~ 20.25V | 27.6 ~ 32.4V | 31.05 ~ 36.45V | 55.2 ~ 64.8V |  |
| FUNCTION                 | REMOTE CONTROL(OPTION)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | CN3:4 ~ 10VDC POWER OFF, <0 ~ 0.8VDC POWER ON                                                                                         |              |                          |              |                |                |              |                |              |  |
| ENVIRONMENT              | WORKING TEMP.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | -10 ~ +60℃ (Refer to output load derating curve)                                                                                      |              |                          |              |                |                |              |                |              |  |
|                          | WORKING HUMIDITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 20 ~ 90% RH non-condensing                                                                                                            |              |                          |              |                |                |              |                |              |  |
|                          | STORAGE TEMP., HUMIDITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | -20 ~ +85℃, 10 ~ 95% RH                                                                                                               |              |                          |              |                |                |              |                |              |  |
|                          | TEMP. COEFFICIENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 0.05%/℃ (0 ~ 50℃)                                                                                                                     |              |                          |              |                |                |              |                |              |  |
|                          | VIBRATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes                                                                          |              |                          |              |                |                |              |                |              |  |
| SAFETY & EMC<br>(Note 4) | SAFETY STANDARDS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | UL60950-1, TUV EN60950-1 approved                                                                                                     |              |                          |              |                |                |              |                |              |  |
|                          | WITHSTAND VOLTAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | I/P-O/P:3KVAC I/P-FG:1.5KVAC O/P-FG:0.5KVAC                                                                                           |              |                          |              |                |                |              |                |              |  |
|                          | ISOLATION RESISTANCE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | I/P-O/P, I/P-FG, O/P-FG:100M Ohms/500VDC                                                                                              |              |                          |              |                |                |              |                |              |  |
|                          | EMI CONDUCTION & RADIATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Compliance to EN55022 (CISPR22) Class B                                                                                               |              |                          |              |                |                |              |                |              |  |
|                          | HARMONIC CURRENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Compliance to EN61000-3-2,-3                                                                                                          |              |                          |              |                |                |              |                |              |  |
|                          | EMS IMMUNITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Compliance to EN61000-4-2,3,4,5,6,8,11; ENV50204, EN55024, light industry level, criteria A                                           |              |                          |              |                |                |              |                |              |  |
| OTHERS                   | MTBF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 208.8K hrs min. MIL-HDBK-217F (25℃)                                                                                                   |              |                          |              |                |                |              |                |              |  |
|                          | DIMENSION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 179*97*33mm (L*W*H)                                                                                                                   |              |                          |              |                |                |              |                |              |  |
|                          | PACKING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 0.58Kg; 20pcs/12Kg/0.64CUFT                                                                                                           |              |                          |              |                |                |              |                |              |  |
| 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. 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.<br>5. Derating may be needed under low input voltages. Please check the derating curve for more details. |                                                                                                                                       |              |                          |              |                |                |              |                |              |  |

## Mechanical Specification

Case No. 920A Unit:mm



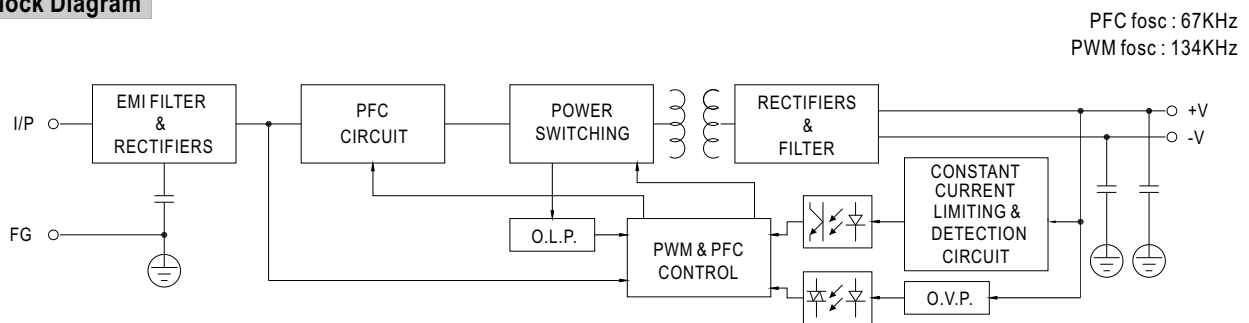
### Terminal Pin No. Assignment

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

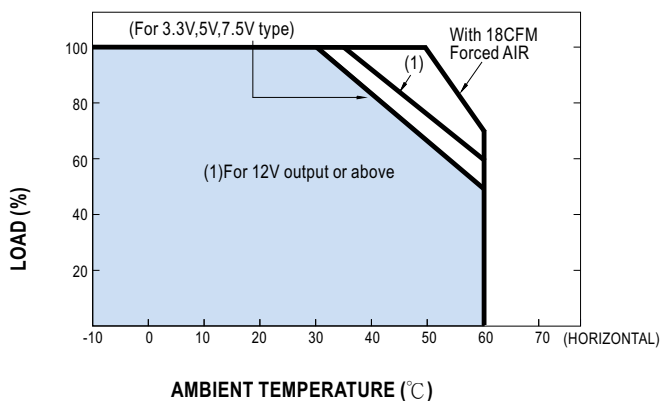
Remote ON/OFF(CN3): Molex 5046-02 or equivalent(optional)

| Pin No. | Assignment | Mating Housing           | Terminal                 |
|---------|------------|--------------------------|--------------------------|
| 1       | RC-        | Molex 5051 or equivalent | Molex 2759 or equivalent |
| 2       | RC+        |                          |                          |

## Block Diagram



## Derating Curve



## Output Derating VS Input Voltage

