



#### ■ Features :

- Universal AC input / Full range
- Built-in active PFC function, PF>0.95
- Protections: Short circuit / Overload / Over voltage
- Low profile: 33mm thickness
- LED indicator for power on
- Cooling by free air convection
- Fixed switching frequency at PFC:67KHz PWM:134KHz
- 3 years warranty

## SPECIFICATION



| MODEL           |  | TP-75A   |          |               | TP-75B    |          |            | TP-75C    |          |          |  |
|-----------------|--|--|----------|---------------|-----------|----------|------------|-----------|----------|----------|--|
|                 | OUTPUT NUMBER  | CH1  | CH2      | CH3           | CH1       | CH2      | CH3        | CH1       | CH2      | CH3      |  |
|                 | DC VOLTAGE   | 5V   | 12V      | -5V           | 5V        | 12V      | -12V       | 5V        | 15V      | -15V     |  |
|                 | RATED CURRENT  | 7A   | 3A       | 0.6A          | 7A        | 3A       | 0.4A       | 6A        | 2.5A     | 0.5A     |  |
|                 | CURRENT RANGE  | 1.5 ~ 10A  | 0.2 ~ 4A | 0 ~ 0.6A      | 1.5 ~ 10A | 0.2 ~ 4A | 0 ~ 0.6A   | 1.5 ~ 10A | 0.2 ~ 3A | 0 ~ 0.6A |  |
|                 | RATED POWER  | 74W  |          |               | 75.8W     |          |            | 75W       |          |          |  |
|                 | RIPPLE & NOISE (max.) Note.2   | 100mVp-p   | 120mVp-p | 100mVp-p      | 100mVp-p  | 120mVp-p | 120mVp-p   | 100mVp-p  | 120mVp-p | 120mVp-p |  |
| ОИТРИТ          | VOLTAGE ADJ. RANGE   | CH1: 4.75 ~ 5  | 5.5V     |               |           |          |            |           |          |          |  |
|                 | VOLTAGE TOLERANCE Note.3   | ±3.0%  | ±4.0%    | ±8.0%         | ±3.0%     | ±4.0%    | ±8.0%      | ±3.0%     | ±4.0%    | ±8.0%    |  |
|                 | LINE REGULATION  | ±1.0%  | ±1.0%    | ±1.0%         | ±1.0%     | ±1.0%    | ±1.0%      | ±1.0%     | ±1.0%    | ±1.0%    |  |
|                 | LOAD REGULATION  | ±3.0%  | ±4.0%    | ±8.0%         | ±3.0%     | ±4.0%    | ±8.0%      | ±3.0%     | ±4.0%    | ±8.0%    |  |
|                 | SETUP, RISE TIME   | 800ms, 60ms at full load   |          |               |           |          |            |           |          |          |  |
|                 | HOLD UP TIME (Typ.)  | 36ms at full load  |          |               |           |          |            |           |          |          |  |
|                 | VOLTAGE RANGE Note.5   | 90 ~ 264VAC 127 ~ 370VDC   |          |               |           |          |            |           |          |          |  |
|                 | FREQUENCY RANGE  | 47 ~ 63Hz  |          |               |           |          |            |           |          |          |  |
|                 | POWER FACTOR (Typ.)  | PF>0.95/230VAC PF>0.98/115VAC at full load   |          |               |           |          |            |           |          |          |  |
| INPUT           | EFFICIENCY (Typ.)  | 70%  |          |               |           |          |            |           |          |          |  |
|                 | AC CURRENT (Typ.)  | 1.5A/115VAC 0.8A/230VAC  |          |               |           |          |            |           |          |          |  |
|                 | INRUSH CURRENT (Typ.)  | COLD START 20A/230VAC  |          |               |           |          |            |           |          |          |  |
|                 | LEAKAGE CURRENT  | <2mA / 240VAC  |          |               |           |          |            |           |          |          |  |
|                 |  | 105 ~ 150% rated output power  |          |               |           |          |            |           |          |          |  |
| PROTECTION      | OVERLOAD   | Protection type: Hiccup mode, recovers automatically after fault condition is removed  |          |               |           |          |            |           |          |          |  |
|                 | OVER VOLTAGE   | 5.75 ~ 6.75V on +5V  |          |               |           |          |            |           |          |          |  |
|                 |  | Protection type: Shut down o/p voltage, re-power on to recover   |          |               |           |          |            |           |          |          |  |
| ENVIRONMENT     | WORKING TEMP.  | -10 ~ +60°C (Refer to "Derating Curve")  |          |               |           |          |            |           |          |          |  |
|                 | WORKING HUMIDITY   | 20 ~ 90% RH non-condensing   |          |               |           |          |            |           |          |          |  |
|                 | STORAGE TEMP., HUMIDITY  | -20 ~ +85°C, 10 ~ 95% RH   |          |               |           |          |            |           |          |          |  |
|                 | TEMP. COEFFICIENT  | ±0.03%/°C (0~50°C)   |          |               |           |          |            |           |          |          |  |
|                 | VIBRATION  | 10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes   |          |               |           |          |            |           |          |          |  |
|                 | SAFETY STANDARDS   | UL60950-1, TUV EN60950-1 approved  |          |               |           |          |            |           |          |          |  |
| SAFETY &        | WITHSTAND VOLTAGE  | I/P-O/P:3KVAC   I/P-FG:2KVAC O/P-FG:0.5KVAC 1min.  |          |               |           |          |            |           |          |          |  |
| SAFEIT &<br>EMC | ISOLATION RESISTANCE   | I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25°C / 70% RH   |          |               |           |          |            |           |          |          |  |
| (Note 4)        | EMC EMISSION   | ,  | ,        | ISPR22) Class |           |          |            |           |          |          |  |
| ,               | EMC IMMUNITY   | ·  | ,        |               |           |          | criteria A |           |          |          |  |
| OTHERS          | MTBF   | Compliance to EN61000-4-2,3,4,5,6,8,11, EN55024, light industry level, criteria A   198.4K hrs min.   MIL-HDBK-217F (25°C)   |          |               |           |          |            |           |          |          |  |
|                 | DIMENSION  | 179*99*33mm (L*W*H)  |          |               |           |          |            |           |          |          |  |
|                 | PACKING  | 0.65Kg; 20pcs/12.7Kg/0.64CUFT  |          |               |           |          |            |           |          |          |  |
| NOTE            | All parameters NOT specia     Ripple & noise are measure     Tolerance: includes set up     The power supply is conside a 360mm*360mm metal plaperform these EMC tests, p. | ally mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.  ed at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.  tolerance, line regulation and load regulation.  dered a component which will be installed into a final equipment. All the EMC tests are been executed by mounting the unit on ate with 1mm of thickness. The final equipment must be re-confirmed that it still meets EMC directives. For guidance on how to please refer to "EMI testing of component power supplies." (as available on http://www.meanwell.com)  nder low input voltages. Please check the derating curve for more details. |          |               |           |          |            |           |          |          |  |





## ■ Features :

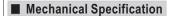
- Universal AC input / Full range
- Built-in active PFC function, PF>0.95
- Protections: Short circuit / Overload/ Over voltage
- Low profile: 33mm thickness
- LED indicator for power on
- Cooling by free air convection
- Fixed switching frequency at PFC:67KHz PWM:134KHz
- 3 years warranty

#### **SPECIFICATION**

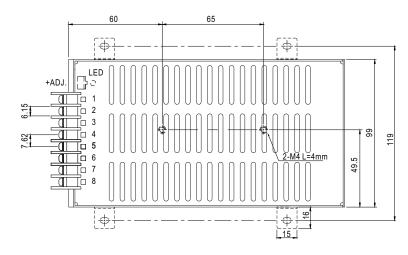


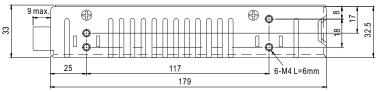
| MODEL       |   | TP-75D  |            |          | TP-7503                   |          |          |  |  |  |
|-------------|---|---|------------|----------|---------------------------|----------|----------|--|--|--|
| OUTPUT      | OUTPUT NUMBER   | CH1   | CH2        | CH3      | CH1                       | CH2      | CH3      |  |  |  |
|             | DC VOLTAGE  | 5V  | 24V        | 12V      | 5V                        | 3.3V     | 12V      |  |  |  |
|             | RATED CURRENT   | 7A  | 1.5A       | 0.4A     | 9A                        | 8A       | 0.3A     |  |  |  |
|             | CURRENT RANGE   | 1.5 ~ 10A   | 0.2 ~ 2.5A | 0 ~ 0.6A | 1.5 ~ 10A                 | 0.2 ~ 8A | 0 ~ 0.6A |  |  |  |
|             | RATED POWER   | 75.8W   |            |          | 75W                       |          |          |  |  |  |
|             | RIPPLE & NOISE (max.) Note.2  | 100mVp-p 120mVp-p 120mVp-p  |            |          | 100mVp-p 50mVp-p 120mVp-p |          |          |  |  |  |
|             | VOLTAGE ADJ. RANGE  | CH1: 4.75 ~ 5.5V  |            |          |                           |          |          |  |  |  |
|             | VOLTAGE TOLERANCE Note.3  | ±3.0%   | ±4.0%      | ±8.0%    | ±3.0%                     | ±4.0%    | ±8.0%    |  |  |  |
|             | LINE REGULATION   | ±1.0%   | ±1.0%      | ±1.0%    | ±1.0%                     | ±1.0%    | ±1.0%    |  |  |  |
|             | LOAD REGULATION   | ±3.0%   | ±4.0%      | ±8.0%    | ±3.0%                     | ±4.0%    | ±8.0%    |  |  |  |
|             | SETUP, RISE TIME  | 800ms, 60ms at full load  |            |          |                           |          |          |  |  |  |
|             | HOLD UP TIME (Typ.)   | 36ms at full load   |            |          |                           |          |          |  |  |  |
|             | VOLTAGE RANGE Note.5  | 90 ~ 264VAC 127 ~ 370VDC  |            |          |                           |          |          |  |  |  |
|             | FREQUENCY RANGE   | 47 ~ 63Hz   |            |          |                           |          |          |  |  |  |
|             | POWER FACTOR (Typ.)   | PF>0.95/230VAC PF>0.98/115VAC at full load  |            |          |                           |          |          |  |  |  |
| INPUT       | EFFICIENCY (Typ.)   | 70%   |            |          |                           |          |          |  |  |  |
|             | AC CURRENT (Typ.)   | 1.5A/115VAC 0.8A/230VAC   |            |          |                           |          |          |  |  |  |
|             | INRUSH CURRENT (Typ.)   | COLD START 20A/230VAC   |            |          |                           |          |          |  |  |  |
|             | LEAKAGE CURRENT   | <2mA/240VAC   |            |          |                           |          |          |  |  |  |
| PROTECTION  |   | 105 ~ 150% rated output power   |            |          |                           |          |          |  |  |  |
|             | OVERLOAD  | Protection type: Hiccup mode, recovers automatically after fault condition is removed   |            |          |                           |          |          |  |  |  |
|             |   | 5.75 ~ 6.75V on +5V   |            |          |                           |          |          |  |  |  |
|             | OVER VOLTAGE  | Protection type : Shut down o/p voltage, re-power on to recover   |            |          |                           |          |          |  |  |  |
|             | WORKING TEMP.   | -10 ~ +60°C (Refer to "Derating Curve")   |            |          |                           |          |          |  |  |  |
|             | WORKING HUMIDITY  | 20 ~ 90% RH non-condensing  |            |          |                           |          |          |  |  |  |
| ENVIRONMENT | STORAGE TEMP., HUMIDITY   | -20 ~ +85°C, 10 ~ 95% RH  |            |          |                           |          |          |  |  |  |
|             | TEMP. COEFFICIENT   | ±0.03%/°C (0~50°C)  |            |          |                           |          |          |  |  |  |
|             | VIBRATION   | 10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes  |            |          |                           |          |          |  |  |  |
|             | SAFETY STANDARDS  | UL60950-1, TUV EN60950-1 approved   |            |          |                           |          |          |  |  |  |
| SAFETY &    | WITHSTAND VOLTAGE   | I/P-O/P:3KVAC I/P-FG:2KVAC O/P-FG:0.5KVAC 1min.   |            |          |                           |          |          |  |  |  |
| EMC         | ISOLATION RESISTANCE  | I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25°C / 70% RH  |            |          |                           |          |          |  |  |  |
| (Note 4)    | 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  | 198.4K hrs min. MIL-HDBK-217F (25°C)  |            |          |                           |          |          |  |  |  |
|             | DIMENSION   | 179*99*33mm (L*W*H)   |            |          |                           |          |          |  |  |  |
|             | PACKING   | 0.65Kg; 20pcs/12.7Kg/0.64CUFT   |            |          |                           |          |          |  |  |  |
| NOTE        | Ripple & noise are measure     Tolerance: includes set up     The power supply is consid     a 360mm*360mm metal pla     perform these EMC tests, p | All the mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.  ed at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.  tolerance, line regulation and load regulation.  dered a component which will be installed into a final equipment. All the EMC tests are been executed by mounting the unit on ate with 1mm of thickness. The final equipment must be re-confirmed that it still meets EMC directives. For guidance on how to blease refer to "EMI testing of component power supplies." (as available on http://www.meanwell.com) ander low input voltages. Please check the derating curve for more details. |            |          |                           |          |          |  |  |  |





Case No. 920A Unit:mm



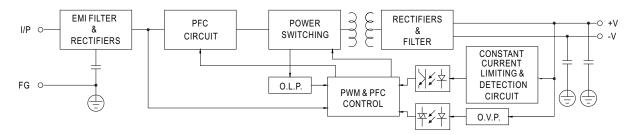


Terminal Pin No. Assignment

| Pin No. | Pin No. Assignment |   | Assignment |
|---------|--------------------|---|------------|
| 1       | DC OUTPUT +V2      | 6 | FG ≟       |
| 2,3     | COM                | 7 | AC/N       |
| 4       | DC OUTPUT +V1      | 8 | AC/L       |
| 5       | DC OUTPUT +V3      |   |            |

# ■ Block Diagram

PFC fosc : 67KHz PWM fosc : 134KHz



## ■ Derating Curve

## ■ Output Derating VS Input Voltage

