

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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## ■ Features :

- Universal AC input / Full range
- Built-in active PFC function, PF>0.94
- Protections: Short circuit / Overload / Over voltage
- Forced air cooling by built-in DC fan
- Fixed switching frequency at 100KHz
- 3 years warranty

## **SPECIFICATION**



| MODEL                       |  | TP-150A   |  |        | TP-150B                    |          |        | TP-150C                    |          |        | TP-150D                   |          |        |  |
|-----------------------------|--|---|--|--------|----------------------------|----------|--------|----------------------------|----------|--------|---------------------------|----------|--------|--|
|                             | OUTPUT NUMBER  | CH1   | CH2  | CH3    | CH1                        | CH2      | CH3    | CH1                        | CH2      | CH3    | CH1                       | CH2      | CH3    |  |
| ОИТРИТ                      | DC VOLTAGE   | 5V  | 12V  | -5V    | 5V                         | 12V      | -12V   | 5V                         | 15V      | -15V   | 5V                        | 24V      | 12V    |  |
|                             | RATED CURRENT  | 15A   | 6A   | 0.6A   | 15A                        | 5.5A     | 0.6A   | 15A                        | 4.5A     | 0.6A   | 15A                       | 3A       | 0.6A   |  |
|                             | CURRENT RANGE  | 2 ~ 20A   | 0.4 ~ 7A   | 0 ~ 1A | 2 ~ 20A                    | 0.4 ~ 7A | 0 ~ 1A | 2 ~ 20A                    | 0.4 ~ 6A | 0 ~ 1A | 2~20A                     | 0.4 ~ 4A | 0 ~ 1A |  |
|                             | RATED POWER  | 150W  |  |        | 148.2W                     |          |        | 151.5W                     |          |        | 154.2W                    |          |        |  |
|                             | RIPPLE & NOISE (max.) Note.2   | 100mVp-p 120mVp-p 100mVp-p  |  |        | 100mVp-p 120mVp-p 100mVp-p |          |        | 100mVp-p 150mVp-p 100mVp-p |          |        | 100mVp-p 150mVp-p 100mVp- |          |        |  |
|                             | VOLTAGE ADJ. RANGE   | CH1: 4.75   | ~ 5.5V   |        |                            |          |        |                            |          |        |                           |          |        |  |
|                             | VOLTAGE TOLERANCE Note.3   | ±3.0%   | ±8.0%  | ±6.0%  | ±3.0%                      | ±8.0%    | ±6.0%  | ±3.0%                      | +10,-6%  | ±6.0%  | ±3.0%                     | ±8.0%    | ±6.0%  |  |
|                             | LINE REGULATION  | ±1.0%   | ±1.0%  | ±1.0%  | ±1.0%                      | ±1.0%    | ±1.0%  | ±1.0%                      | ±1.0%    | ±1.0%  | ±1.0%                     | ±1.0%    | ±1.0%  |  |
|                             | LOAD REGULATION  | ±3.0%   | ±6.0%  | ±4.0%  | ±3.0%                      | ±6.0%    | ±4.0%  | ±3.0%                      | ±6.0%    | ±4.0%  | ±3.0%                     | ±6.0%    | ±4.0%  |  |
|                             | SETUP, RISE TIME   | 800ms, 60   | 00ms, 60ms/230VAC 2600ms, 60ms/115VAC at full load |        |                            |          |        |                            |          |        |                           |          |        |  |
|                             | HOLD UP TIME (Typ.)  | 24ms/230VAC 24ms/115VAC at full load  |  |        |                            |          |        |                            |          |        |                           |          |        |  |
| INPUT                       | VOLTAGE RANGE  | 90 ~ 264VAC 127 ~ 370VDC  |  |        |                            |          |        |                            |          |        |                           |          |        |  |
|                             | FREQUENCY RANGE  | 47 ~ 63Hz   |  |        |                            |          |        |                            |          |        |                           |          |        |  |
|                             | POWER FACTOR (Typ.)  | PF>0.94/2   | F>0.94/230VAC PF>0.98/115VAC at full load          |        |                            |          |        |                            |          |        |                           |          |        |  |
|                             | EFFICIENCY (Typ.)  | 75%   |  |        | 77%                        | 77%      |        |                            | 77%      |        |                           | 78%      |        |  |
|                             | AC CURRENT (Typ.)  | 2.5A/115VAC 1.2A/230VAC   |  |        |                            |          |        |                            |          |        |                           |          |        |  |
|                             | INRUSH CURRENT (Typ.)  | COLD START ≤40A/230V  |  |        |                            |          |        |                            |          |        |                           |          |        |  |
|                             | LEAKAGE CURRENT  | <3.5mA/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  |  |        |                            |          |        |                            |          |        |                           |          |        |  |
|                             | OVER TEMPERATURE(OPTION)   | Shut down o/p voltage, recovers automatically after temperature goes down   |  |        |                            |          |        |                            |          |        |                           |          |        |  |
| ENVIRONMENT                 | WORKING TEMP.  | -10 ~ +60 °C (Refer to "Derating Curve")  |  |        |                            |          |        |                            |          |        |                           |          |        |  |
|                             | WORKING HUMIDITY   | 20 ~ 90% RH non-condensing  |  |        |                            |          |        |                            |          |        |                           |          |        |  |
|                             | STORAGE TEMP., HUMIDITY  | $-20 \sim +85 ^{\circ}\mathrm{C}$ , $10 \sim 95 \%$ RH non-condensing   |  |        |                            |          |        |                            |          |        |                           |          |        |  |
|                             | TEMP. COEFFICIENT  | ±0.03%/°C (0~50°C)  |  |        |                            |          |        |                            |          |        |                           |          |        |  |
|                             | VIBRATION  | 10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes  |  |        |                            |          |        |                            |          |        |                           |          |        |  |
| SAFETY &<br>EMC<br>(Note 4) | SAFETY STANDARDS   | UL60950-1, TUV EN60950-1, EAC TP TC 004 approved  |  |        |                            |          |        |                            |          |        |                           |          |        |  |
|                             | WITHSTAND VOLTAGE  | I/P-O/P:3KVAC I/P-FG:2KVAC O/P-FG:0.5KVAC 1min.   |  |        |                            |          |        |                            |          |        |                           |          |        |  |
|                             | ISOLATION RESISTANCE   | I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25°C / 70% RH  |  |        |                            |          |        |                            |          |        |                           |          |        |  |
|                             | EMC EMISSION   | Compliance to EN55032 (CISPR32) Class B, EN61000-3-2,-3, EAC TP TC 020  |  |        |                            |          |        |                            |          |        |                           |          |        |  |
|                             | EMC IMMUNITY   | Compliance to EN61000-4-2,3,4,5,6,8,11, EN55024, light industry level, criteria A, EAC TP TC 020  |  |        |                            |          |        |                            |          |        |                           |          |        |  |
| OTHERS                      | MTBF   | 161.6K hrs min. MIL-HDBK-217F (25°C)  |  |        |                            |          |        |                            |          |        |                           |          |        |  |
|                             | DIMENSION  | 199*99*50mm (L*W*H)   |  |        |                            |          |        |                            |          |        |                           |          |        |  |
|                             | PACKING  | U,  | pcs/19Kg/1   |        |                            |          |        |                            |          |        |                           |          |        |  |
| NOTE                        | Ripple & noise are measure Tolerance : includes set up The power supply is consid a 360mm*360mm metal pla perform these EMC tests, p | Illy mentioned are measured at 230VAC input, rated load and $25^{\circ}\text{C}$ of ambient temperature. ed at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor. Itolerance, line regulation and load regulation. letered 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) lerating of 3.5°C/1000m with fanless models and of 5°C/1000m with fan models for operating altitude higher than 2000m(6500ft). |  |        |                            |          |        |                            |          |        |                           |          |        |  |



