



# MEAN WELL

## SWITCHING POWER SUPPLY

ISO-9001 CERTIFIED MANUFACTURER

## TP-150 SERIES

- .LOW COST, HIGH RELIABILITY
- .105°C OUTPUT CAPACITOR
- .INTERNATIONAL AC INPUT RANGE
- .HIGH EFFICIENCY, LOW WORKING TEMPERATURE
- .SOFT-START CIRCUIT, LIMITING AC SURGE CURRENT
- .SHORT CIRCUIT, OVERLOAD, OVER VOLTAGE PROTECTED

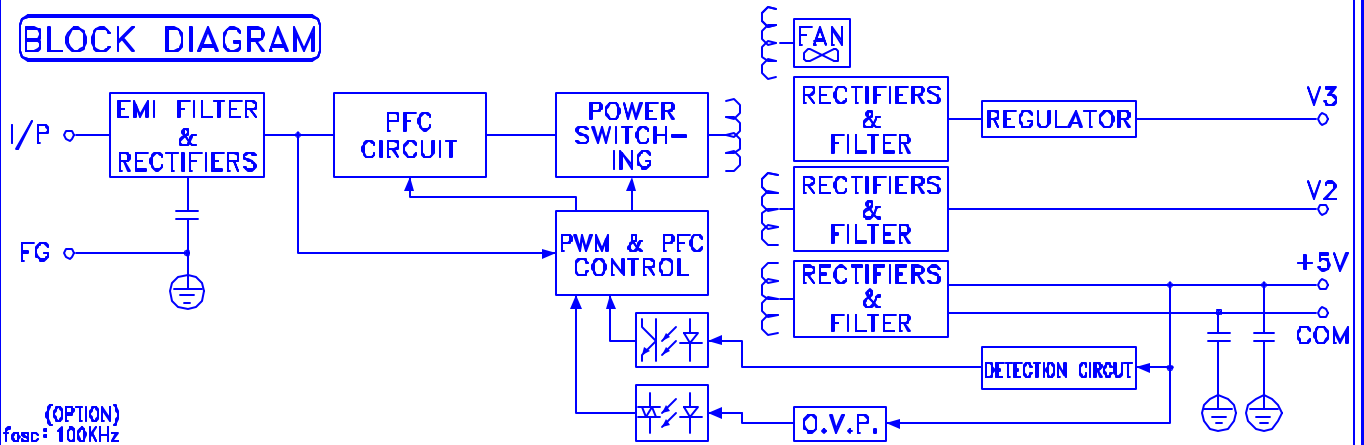


| SPECIFICATION                | MODEL TP-150A   |        |       | TP-150B |        |       | TP-150C |             |       | TP-150D |        |       |
|------------------------------|---|--------|-------|---------|--------|-------|---------|-------------|-------|---------|--------|-------|
|                              | CH1   | CH2    | CH3   | CH1     | CH2    | CH3   | CH1     | CH2         | CH3   | CH1     | CH2    | CH3   |
| DC OUTPUT VOLTAGE            | 5V  | 12V    | -5V   | 5V      | 12V    | -12V  | 5V      | 15V         | -15V  | 5V      | 24V    | 12V   |
| OUTPUT V. TOLERANCE          | ±3%   | ±8%    | ±6%   | ±3%     | ±8%    | ±6%   | ±3%     | +10,<br>-6% | ±6%   | ±3%     | ±8%    | ±6%   |
| OUTPUT RATED CURRENT         | 15A   | 6A     | 0.6A  | 15A     | 5.5A   | 0.6A  | 15A     | 4.5A        | 0.6A  | 15A     | 3A     | 0.6A  |
| OUTPUT 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  |
| RIPPLE & NOISE               | 100mV   | 120mV  | 100mV | 100mV   | 120mV  | 100mV | 100mV   | 150mV       | 100mV | 100mV   | 150mV  | 100mV |
| LINE REGULATION              | ±1%   | ±1%    | ±1%   | ±1%     | ±1%    | ±1%   | ±1%     | ±1%         | ±1%   | ±1%     | ±1%    | ±1%   |
| LOAD REGULATION              | ±3%   | ±6%    | ±4%   | ±3%     | ±6%    | ±4%   | ±3%     | ±6%         | ±4%   | ±3%     | ±6%    | ±4%   |
| MAX. OUTPUT POWER            | 150W  |        |       | 148.2W  |        |       | 151.5W  |             |       | 154.2W  |        |       |
| EFFICIENCY                   | 75%   |        |       | 77%     |        |       | 77%     |             |       | 78%     |        |       |
| DC VOLTAGE ADJ.              | CH1:+10%, -5%   |        |       |         |        |       |         |             |       |         |        |       |
| INPUT VOLTAGE RANGE          | 90-264VAC 47-63Hz ; 127-370VDC  |        |       |         |        |       |         |             |       |         |        |       |
| AC CURRENT                   | 2.5A/115V 1.2A/230V   |        |       |         |        |       |         |             |       |         |        |       |
| INRUSH CURRENT               | COLD START <=45A/230V   |        |       |         |        |       |         |             |       |         |        |       |
| LEAKAGE CURRENT              | <3.5mA/240VAC   |        |       |         |        |       |         |             |       |         |        |       |
| OVERLOAD PROTECTION          | 105-150 % PULSE MODE RESET:AUTO RECOVERY  |        |       |         |        |       |         |             |       |         |        |       |
| OVER VOLTAGE PROTECTION      | 115%-135% ON +5V TYPE:SHUTDOWN RESET:RE POWER ON  |        |       |         |        |       |         |             |       |         |        |       |
| OVER TEMP.PROTECTION(OPTION) | 95°C±5°C TSW1 TYPE:SHUTDOWN RESET:AUTO RECOVERY   |        |       |         |        |       |         |             |       |         |        |       |
| POWER FACTOR                 | PF>0.94/230VAC, PF>0.98/115VAC  |        |       |         |        |       |         |             |       |         |        |       |
| TEMP. COEFFICIENT            | ±0.03% / °C (0-50°C)  |        |       |         |        |       |         |             |       |         |        |       |
| SETUP,RISE,HOLD UP TIME      | 800ms, 60ms, 20ms / 230,115VAC  |        |       |         |        |       |         |             |       |         |        |       |
| VIBRATION                    | 10-500Hz, 2G 3AXES 10min. / 1cycle ( 1 HOUR / EACH AXES )                                 |        |       |         |        |       |         |             |       |         |        |       |
| WITHSTAND VOLTAGE            | I/P-O/P:3KVAC I/P-FG:1.5KVAC O/P-FG:0.5KVAC 1min.   |        |       |         |        |       |         |             |       |         |        |       |
| ISOLATION RESISTANCE         | I/P-O/P,I/P-FG,O/P-FG:500VDC / 100M ohms  |        |       |         |        |       |         |             |       |         |        |       |
| WORKING TEMP., HUMIDITY      | -10°C~+60°C(REFER TO OUTPUT DERATING CURVE), 20%-90% RH                                   |        |       |         |        |       |         |             |       |         |        |       |
| STORAGE TEMP., HUMIDITY      | -20°C~+85°C, 10%-95% RH   |        |       |         |        |       |         |             |       |         |        |       |
| DIMENSION                    | 199*90*50mm (L*W*H) CASE:916B   |        |       |         |        |       |         |             |       |         |        |       |
| WEIGHT                       | 800gs   |        |       |         |        |       |         |             |       |         |        |       |
| SAFETY STANDARDS             | UL1950,TUV EN60950 APPROVED   |        |       |         |        |       |         |             |       |         |        |       |
| EMC STANDARDS                | EN55022 CLASS B, EN61000-4-2,3,4,5,6,8,11; ENV50204, EN61000-3-2,-3, EN55024 VERIFICATION |        |       |         |        |       |         |             |       |         |        |       |

- NOTE :
- 1.ALL PARAMETERS ARE SPECIFIED AT 230VAC INPUT, RATED LOAD, 25°C 70% RH. AMBIENT.
  - 2.TOLERANCE INCLUDE SET UP TOLERANCE, LINE REGULATION, LOAD REGULATION.
  - 3.RIPPLE & NOISE ARE MEASURED AT 20MHz BY USING A 12" TWISTED PAIR TERMINATED WITH A 0.1uF & 47uF CAPACITOR.
  - 4.LINE REGULATION IS MEASURED FROM LOW LINE TO HIGH LINE AT RATED LOAD.
  - 5.OUTPUT PROVIDE UP TO MAXIMUM CURRENT, BUT TATAL OUTPUT CAN NOT EXCEED MAX. OUTPUT POWER MAXIMUM OUTPUT POWER.
  - 6.MOUNTING HOLES M1 AND M2 SHOULD BE GROUNDED FOR EMI PURPOSES.

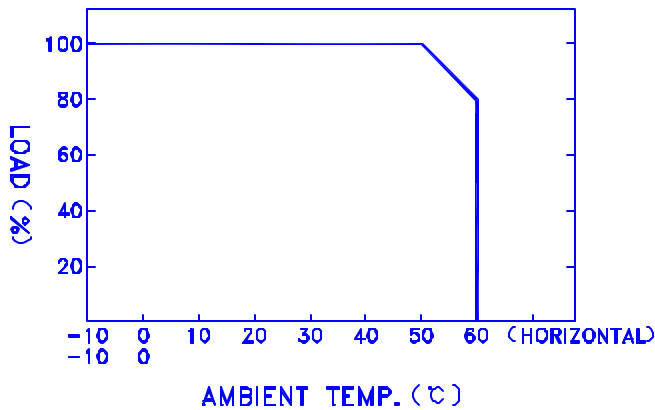
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## BLOCK DIAGRAM

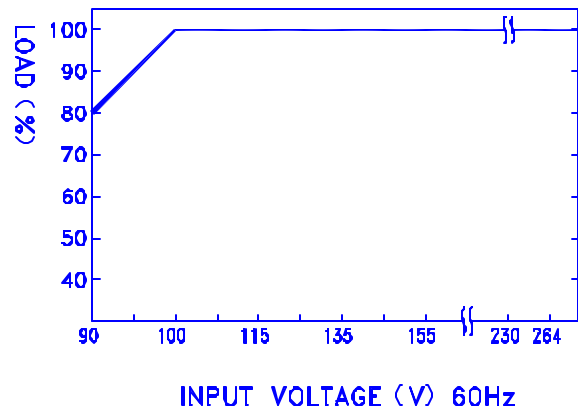


(OPTION)  
fosc = 100KHz

## OUTPUT DERATING VS T<sub>a</sub>



## OUTPUT DERATING VS INPUT VOLTAGE



## DIMENSION (mm)

☒ CASE : 916B

☒ TERMINAL PIN NO. ASSIGNMENT

☒ PIN 1,2 : AC INPUT

☒ PIN 3 : FG  $\perp$

☒ PIN 4 : DC OUTPUT V3

☒ PIN 5 : DC OUTPUT V2

☒ PIN 6,7 : DC OUTPUT V1

☒ PIN 8,9 : DC OUTPUT COM

