



# 150W Triple Output with PFC Function

# TP-150 series

Authorized Distributor: Total Power International, Inc. Toll Free: 877-646-0900(US) PH# (978)453-7272 www.total-power.com



- 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

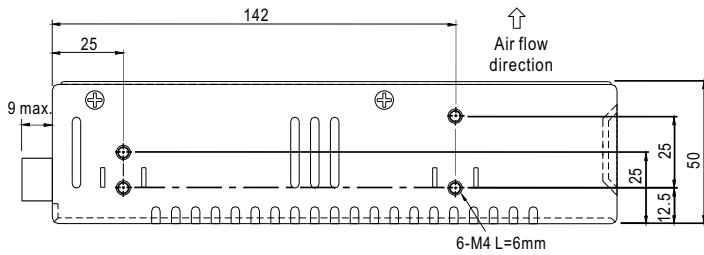
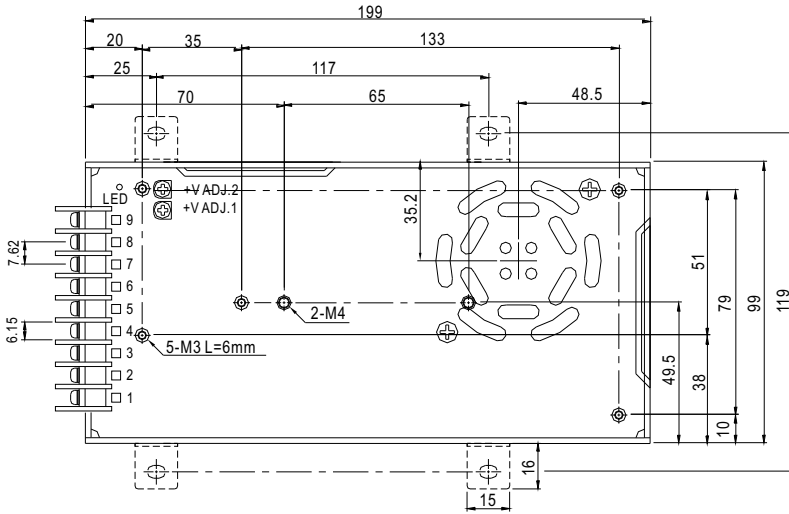


## SPECIFICATION

MODEL	TP-150A			TP-150B			TP-150C			TP-150D				
OUTPUT	OUTPUT NUMBER	CH1	CH2	CH3	CH1	CH2	CH3	CH1	CH2	CH3	CH1	CH2	CH3	
	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	100mVp-p	150mVp-p	100mVp-p
	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%	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, 60ms/230VAC			800ms, 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>0.94/230VAC			PF>0.98/115VAC at full load									
	EFFICIENCY (Typ.)	75%			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	OVERLOAD	105 ~ 150% rated output power 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												
	OVER TEMPERATURE(OPTION)	95°C 5°C (TSW1) Protection type : Shut down o/p voltage, recovers automatically after temperature goes down												
ENVIRONMENT	WORKING TEMP.	-10 ~ +60°C (Refer to output load 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 & EMC (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 1min.												
	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	161.6K hrs min. MIL-HDBK-217F (25°C)												
	DIMENSION	199*99*50mm (L*W*H)												
	PACKING	0.9Kg; 20pcs/19Kg/1.28CUFT												
NOTE	1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature. 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor. 3. Tolerance : includes set up tolerance, line regulation and load regulation. 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.													

**Mechanical Specification**

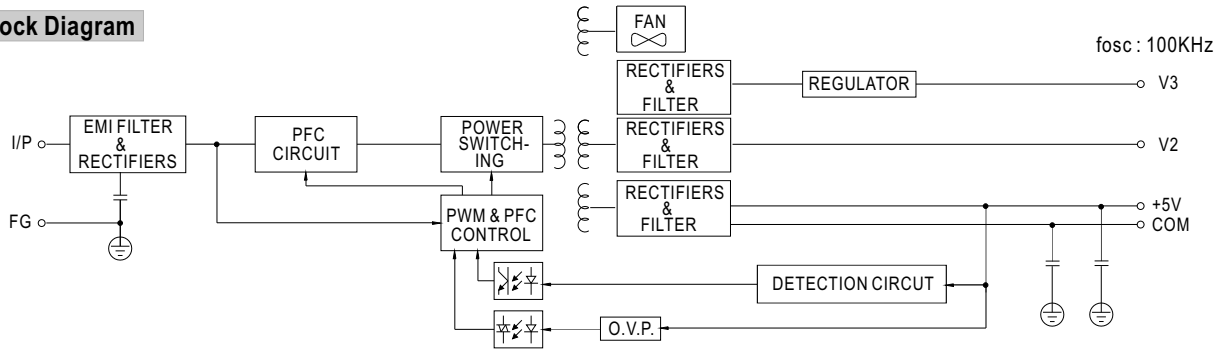
Case No. 916B Unit:mm



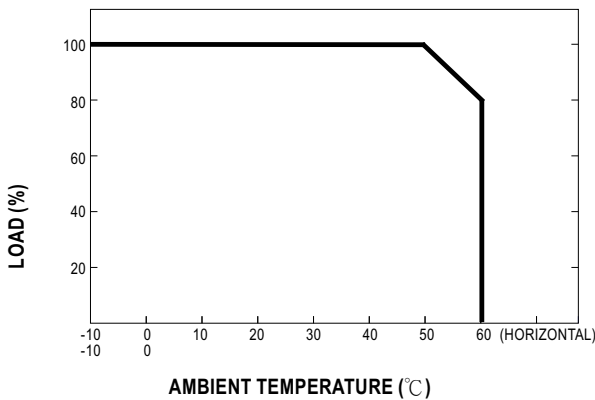
**Terminal Pin No. Assignment :**

Pin No.	Assignment	Pin No.	Assignment
1	AC/L	5	DC OUTPUT V2
2	AC/N	6,7	DC OUTPUT V1
3	FG $\perp$	8,9	DC OUTPUT COM
4	DC OUTPUT V3		

**Block Diagram**



**Derating Curve**



**Output Derating VS Input Voltage**

