TP-100 series

100W Triple Output with PFC Function



■ Features :

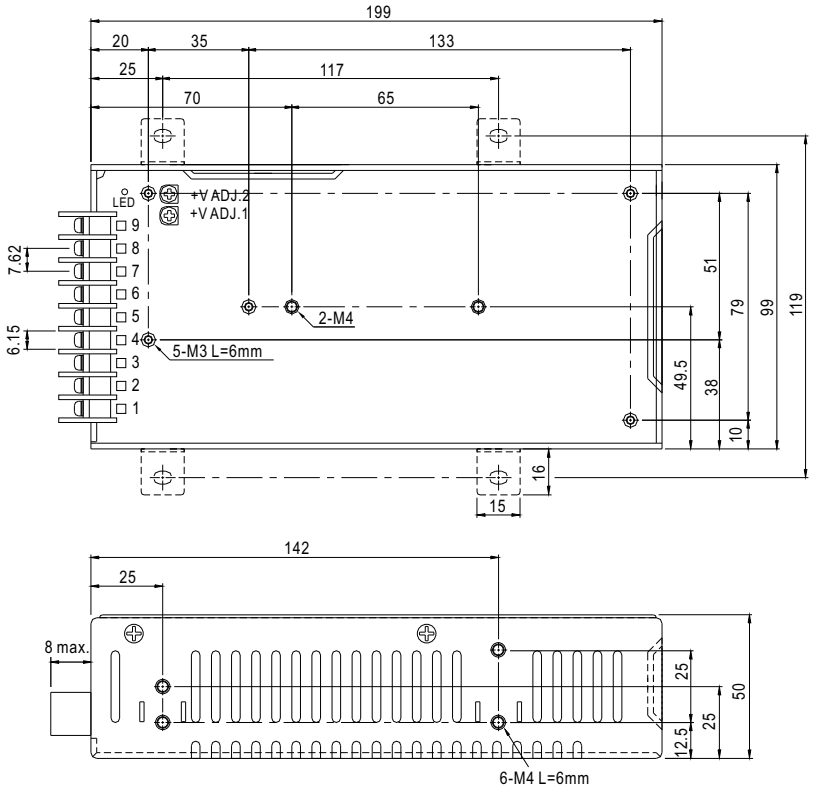
- Universal AC input / Full range
- Built-in active PFC function, PF>0.94
- Protections: Short circuit / Overload / Over voltage
- Free air cooling convection
- Fixed switching frequency at 100KHz
- 3 years warranty

SPECIFICATION

MODEL		TP-100A			TP-100B			TP-100C			TP-100D		
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	10A	4A	0.6A	10A	4A	0.6A	10A	3A	0.6A	10A	2A	0.6A
	CURRENT RANGE	3 ~ 15A	0.4 ~ 5A	0 ~ 1A	3 ~ 15A	0.4 ~ 5A	0 ~ 1A	3 ~ 15A	0.4 ~ 4A	0 ~ 1A	3 ~ 15A	0.4 ~ 3A	0 ~ 1A
	RATED POWER (max.)	101W			105.2W			104W			105.2W		
	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-p
	VOLTAGE ADJ. RANGE	CH1: 4.75 ~ 5.5V											
	VOLTAGE TOLERANCE Note.3	3.0%	7.0%	6.0%	3.0%	6.0%	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, 60ms/230VAC 800ms, 60ms/115VAC at full load											
	HOLD UP TIME (Typ.)	24ms/230VAC 24ms/115VAC at full load											
INPUT	VOLTAGE RANGE Note.5	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%			78%			77%			78%		
	AC CURRENT (Typ.)	1.5A/115VAC 0.75A/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	CH1:5.75 ~ 6.75V on +5V											
		Protection type : Shut down o/p voltage, re-power on to recover											
	OVER TEMPERATURE(OPTION)	95℃ 5℃ (TSW1)											
		Protection type : Shut down o/p voltage, recovers automatically after temperature goes down											
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	0.03%/℃ (0~50℃)											
	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	170.1K hrs min. MIL-HDBK-217F (25℃)											
	DIMENSION	199*99*50mm (L*W*H)											
	PACKING	0.83Kg; 20pcs/17.6Kg/1.28CUFT											
NOTE	1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25℃ 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. 5. Derating may be needed under low input voltages. Please check the derating curve for more details.												

■ Mechanical Specification

Case No. 916A Unit:mm

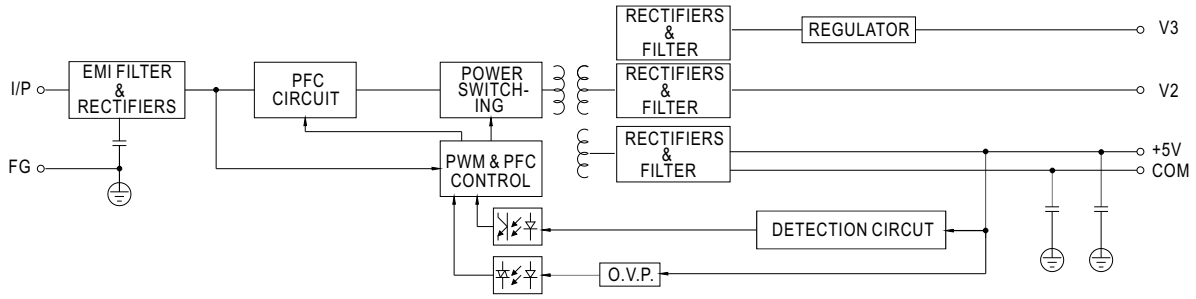


Terminal Pin No. Assignment :

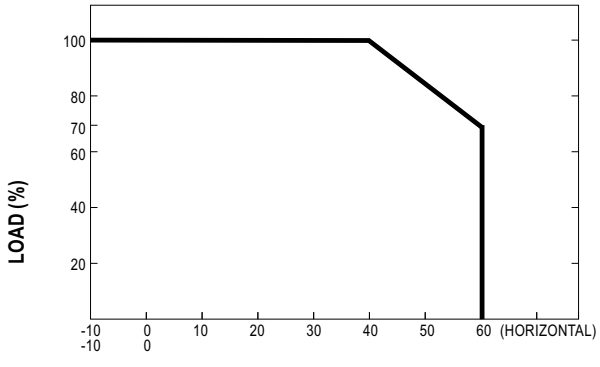
Pin No.	Assignment	Pin No.	Assignment
1	AC/L	5	DC OUTPUT V2
2	AC/N	6,7	DC OUTPUT V1
3	FG ⏚	8,9	DC OUTPUT COM
4	DC OUTPUT V3		

■ Block Diagram

fosc : 100KHz

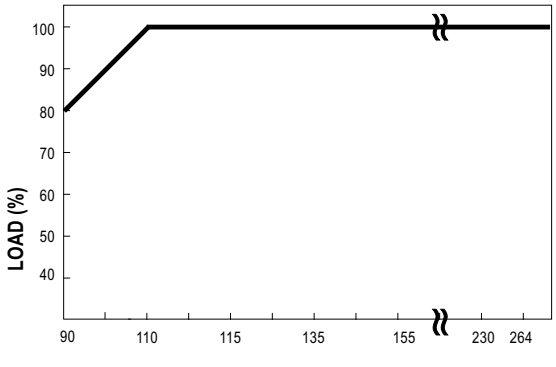


■ Derating Curve



AMBIENT TEMPERATURE (℃)

■ Output Derating VS Input Voltage



INPUT VOLTAGE (VAC) 60Hz