

TP-100 Series

100W Triple Output Enclosed Power Supply with PFC



Case No: 8018JV
199 x 99 x 50 mm

Features

- Universal AC input/ Full range
- Built-in active PFC function, PF>0.95
- Protections: Short circuit/Overload/Over voltage
- Free air cooling convection
- Fixed switching frequency at 100KHz



Specification

INPUT	Voltage	90V ~ 264VAC universal full range or 127V ~ 370VDC					
	Frequency	47 ~ 63 Hz					
	Current	<1.5A@115VAC; 0.75A/230VAC input, full load					
	Inrush Current	<40A@230VAC input, Cold start at 25°C ambient					
	Leakage Current	<3.5mA@240VAC input					
OUTPUT	MODEL No.	TP-100A			TP-100B		
	Channel No.	CH1	CH2	CH3	CH1	CH2	CH3
	Voltage	5V	12V	-5V	5V	12V	-12V
	Rated Current	10A	4A	0.6A	10A	4A	0.6A
	Current Range	3~15A	0.4~5A	0~1A	3~15A	0.4~5A	0~1A
	Voltage Adj. Range	CH1: 4.75~5.5V			CH1: 4.75~5.5V		
	Output Tolerance	± 3%	± 7%	± 6%	± 3%	± 6%	± 6%
	Line Regulation	± 1%	± 1%	± 1%	± 1%	± 1%	± 1%
	Load Regulation	± 3%	± 6%	± 4%	± 3%	± 6%	± 4%
	Ripple Noise MAX.	100mV	120mV	100mV	100mV	120mV	100mV
	Efficiency (Typ.)	75%			78%		
	Power	101W			105.2W		
	PROTECTION	Over Voltage	5.75~6.75V on +5V Shutdown and latch off, re-power on to recover				
Over Temperature (Optional)		95°C ± 5°C (TSW1) Shut down o/p voltage, re-power on to recover					
Over Load		105~150% rated output power; Hiccup mode, recovers automatically after fault condition is removed					
ELEC. CHAR	Rise Time	<60mS at 115~230VAC at full load					
	Hold up Time	>24mS at 115~230VAC at full load					
	Setup Time	<0.8 Sec at 115~230VAC at full load					
ENVIRONMENT	Temperature	Operating: -10 ~ +60°C ; Storage: -20~ +85°C					
	Humidity	Operating: 20% ~ 90% RH; Storage: 10% ~ 95% RH (non condensing)					
SAFETY	Withstand Voltage	I/P-O/P:3KVAC, I/P-FG:1.5KVAC, O/P-FG:0.5KVAC, 1minute					
	Isolation Resistance	I/P-O/P, I/P-FG, O/P-FG 100MΩ/500VDC					
	Safety Standard	UL60950-1; TUV EN60950-1 Approved					
EMC	EMI	EN55022; EN61000-3-2,3					
	EMS	EN61000-4-2,3,4,5,6,8,11; ENV50204; EN55024					
OTHERS	Cooling	Natural cooling					
	M.T.B.F.	170.1K hrs min. MIL-HDBK-217F (25°C)					
	Packing	0.83Kg; 20 pcs/17.6Kg/1.28 CUFT					

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.

5 Derating may be needed under low input voltages. Please check the derating curve for more details.

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	Inrush Current	<40A@230VAC input, Cold start at 25°C ambient					
	Leakage Current	<3.5mA@240VAC input					
OUTPUT	MODEL No.	TP-100C			TP-100D		
	Channel No.	CH1	CH2	CH3	CH1	CH2	CH3
	Voltage	5V	15V	-15V	5V	24V	12V
	Rated Current	10A	3A	0.6A	10A	2A	0.6A
	Current Range	3~15A	0.4~4A	0~1A	3~15A	0.4~3A	0~1A
	Voltage Adj. Range	CH1: 4.75~5.5V			CH1: 4.75~5.5V		
	Output Tolerance	± 3%	+10, -6%	± 6%	± 3%	± 8%	± 6%
	Line Regulation	± 1%	± 1%	± 1%	± 1%	± 1%	± 1%
	Load Regulation	± 3%	± 6%	± 4%	± 3%	± 6%	± 4%
	Ripple Noise MAX.	100mV	150mV	100mV	100mV	150mV	100mV
	Efficiency (Typ.)	77%			78%		
	Power	104W			105.2W		
	PROTECTION	Over Voltage	5.75~6.75V on +5V Shutdown and latch off, recover after re-start up.				
Over Temperature		95°C ± 5°C (TSW1) (Optional) Shut down o/p voltage, re-power on to recover					
Over Load		105~150% rated output power; Hiccup mode, recovers automatically after fault condition is removed					
ELEC. CHAR.	Rise Time	<60mS at 115~230VAC at full load					
	Hold up Time	>24mS at 115~230VAC at full load					
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ENVIRONMENT	Temperature	Operating: -10 ~ +60°C ; Storage: -20~ +85°C					
	Humidity	Operating: 20% ~ 90% RH; Storage: 10% ~ 95% RH (non condensing)					
SAFETY	Withstand Voltage	I/P-O/P:3KVAC, I/P-FG:1.5KVAC, O/P-FG:0.5KVAC, 1minute					
	Isolation Resistance	I/P-O/P, I/P-FG, O/P-FG 100MΩ/500VDC					
	Safety Standard	UL60950-1; TUV EN60950-1 Approved					
EMC	EMI	EN55022; EN61000-3-2,3					
	EMS	EN61000-4-2,3,4,5,6,8,11; ENV50204; EN55024					
OTHERS	Cooling	Natural cooling					
	M.T.B.F.	170.1K hrs min. MIL-HDBK-217F (25°C)					
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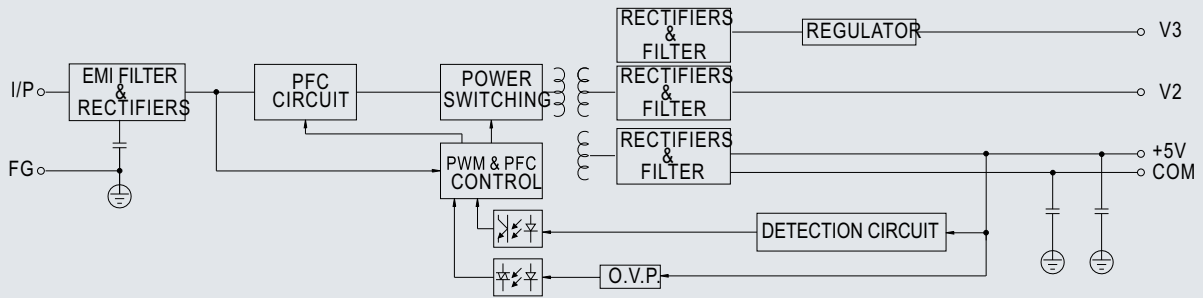
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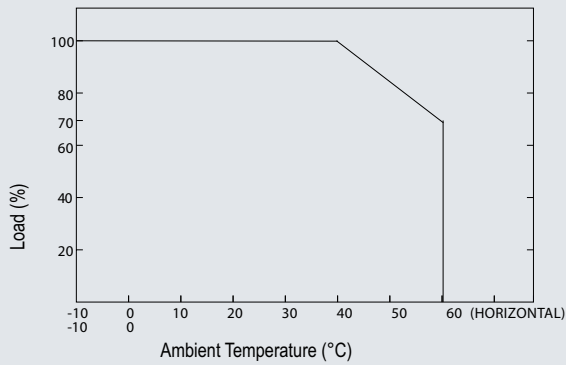
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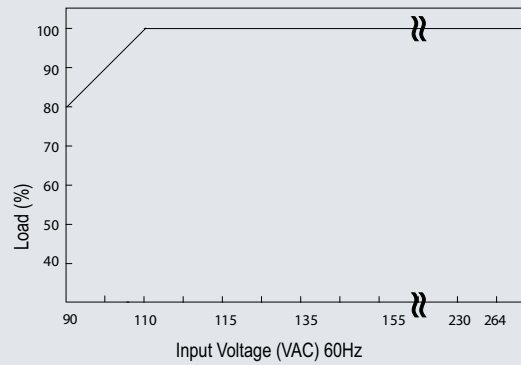
Block Diagram



De-Rating Curve



Output De-Rating Vs. Input Voltage



Dimensions

Terminal Pin. No Assignment:

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

