

## SPECIFICATION

For

## SWITCHING POWER SUPPLY

### M/N: MPD-8071-S

#### Revision History

Version	Revise Date	Change Items
Rev. 01	Mar. 28. 2011	Updated safety approvals status.
Rev. 02	Feb. 21. 2018	Changed form.
Rev. 03	Dec. 24. 2018	Added output current to output field.



### FEATURES

- ✓ The MPD-8071-S is a 72Watts triple outputs switching power supply, specially designed for microprocessor-based applications. DC input from 10V to 30V.

### Models & Ratings

Model Number	Wattage	Output Voltage		Min. Current	Rated Current	Peak load
MPD-8071-S	72 W	V1	+5 V	0 A	10.0 A	14.0 A
		V2	+12 V	0 A	1.5 A	3.0 A
		V3	-12 V	0 A	0.3 A	-

Note:  
 1. At factory, all outputs in 60% rated load conditions; the +5V output is set to between 5.00V and 5.10V, and the other outputs are checked to be within the specified voltage accuracy range. When input is 24V at ambient temperature 25°C, peak load can keep 10 sec. but only for one of the output. As for the other outputs, they will be at rated load.

### Summary

Characteristic	Minimum	Typical	Maximum	Units	Notes & Conditions
Input Range	+10	+24	+30	VDC	
Efficiency	70			%	While measuring at DC 24V and rated load.
Operation Temperature	0		+50	°C	The continuously output is 70W with 42CFM forced air required. The continuously output is 50W with no fan.
Dimensions	127.0 (L) x 76.2 (W) x 38.6 (H) mm, Tolerance specified is +/-0.4mm				
EMC	EN 55022 & FCC docket 20780, IEC-801-2, IEC-801-3, IEC-801-4				
Safety Approvals	EN 60950-1: 2006+A11, UL 1950, CAN/CSA C22.2 No. 950-95				

## Input

Characteristic	Minimum	Typical	Maximum	Units	Notes & Conditions
Input Voltage	+10	+24	+30	VDC	
Input Current			13	A	At 10 VDC.
Inrush Current			25	A	The maximum inrush current will not exceed 25A at 12VDC input from a cold start, with exclusion of EMI capacitors.

## Output

Characteristic	Minimum	Typical	Maximum	Peak load	Units	Notes & Conditions
Output Voltage		+5			VDC	
		+12				
		-12				
Output Current		10.0		14.0	A	Peak load can keep 10 sec.
		1.5		3.0		
		0.3		-		
Initial Set Accuracy	5.00		5.10		V	
	11.2		13.0			
	-10.8		-13.0			
Minimum Load		0			A	
Line Regulation		±2.0 <sup>(V1)</sup> ±2.0 <sup>(V2)</sup> ±2.0 <sup>(V3)</sup>			%	While measuring at rated loading and +/-10% of input +12V and +24V changing.
Load Regulation		±3.0 <sup>(V1)</sup> ±5.0 <sup>(V2)</sup> +8.0, -3.0 <sup>(V3)</sup>			%	While measuring is done by changing the measured output loading +/-40% from 60% rated load, and keep other outputs at 60% rated load and normal line.
Ripple & Noise		50 <sup>(V1)</sup> 100 <sup>(V2)</sup> 100 <sup>(V3)</sup>			mV	Measuring is done by 15MHz band- width limited oscilloscope and terminated each output with a 0.47uF capacitor at rated loading, nominal line.
Protection	For some reason the power supply fails to control itself, the build-in over voltage protection circuit will shut down the outputs to prevent damage to external circuits. The trip point of crowbar circuit is around 5.7V to 7.0V. The power supply will go into hiccup mode against short circuit or over load conditions, and will auto-recovery while fault conditions moved. The O.C.P. of +5V is 20A max.					

## General

Characteristic	Minimum	Typical	Maximum	Units	Notes & Conditions
Efficiency	70			%	While measuring at DC 24V and rated load.

## Environmental

Characteristic	Minimum	Typical	Maximum	Units	Notes & Conditions
Operating Temperature	0		+50	°C	The continuously output is 70W with 42CFM forced air required. The continuously output is 50W with no fan.
Storage Temperature	-40		+85	°C	
Relative Humidity	10		90	%RH	Non-condensing.
Cooling	42			CFM	Forced-cooled @ 70W
Operating Altitude	0		10000	Feet	

## EMC: Emissions

Phenomenon	Standard	Class	Notes & Conditions
Conducted	EN 55022 & FCC docket 20780	B	
Radiated	EN 55022 & FCC docket 20780	B	

## EMC: Immunity

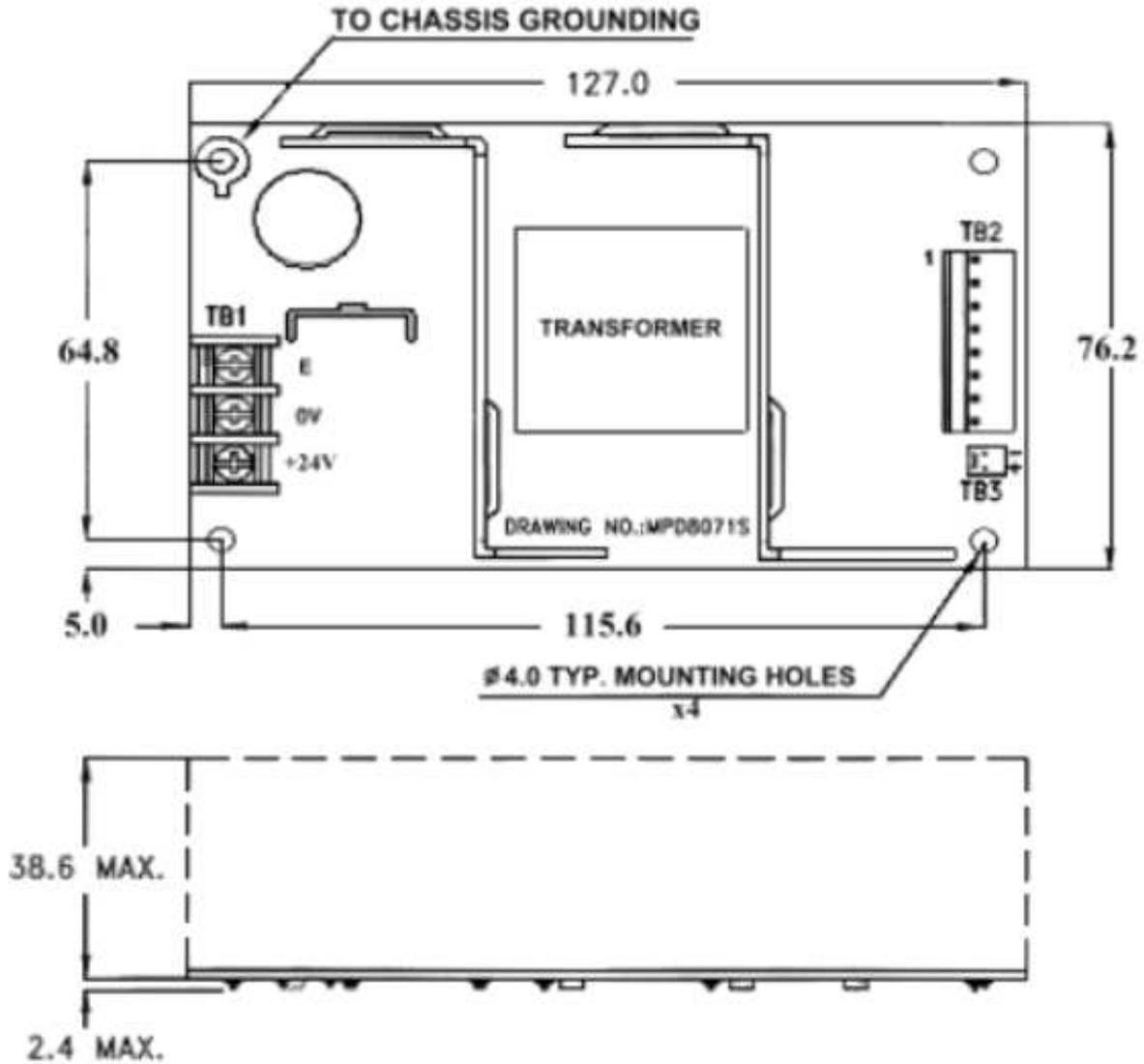
Phenomenon	Standard	Notes & Conditions
ESD	IEC-801-2	8KV air discharge
Radiated	IEC-801-3	3V/m
EFT	IEC-801-4	2KV

## Safety Approvals

Safety Agency	Safety Standard	Notes & Conditions
TUV	EN 60950-1: 2006+A11	Designed to meet.
UL/cUL	UL 1950, CAN/CSA C22.2 No. 950-95	Designed to meet.

## Mechanical Details

SIZE : 127.0 (L) x 76.2 (W) x 38.6 (H) mm, Tolerance specified is +/-0.4mm.



Connectors:

TB1—DC input : 3 positions terminal block

TB2—DC output : Molex 5273-08A or equivalent.

TB3—for FAN use only : Molex 5045-02A or equivalent.

DC output pin assignment:

Pin	1.	+5V	5.	GND
	2.	+5V	6.	GND
	3.	+5V	7.	+12V
	4.	GND	8.	-12V