

# MPM-04 Series

## Compact, Board Mount 4W Single And Dual Output AC/DC Power Supplies



### Key Features:

- 4W Output Power
- Miniature Size
- Universal 90-264 VAC Input
- EN 60950 Approved (UL)
- Meets IEC Safety Class II
- Single and Dual Outputs
- Meets EN 55022 B
- >350 kHour MTBF



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### Electrical Specifications

Specifications typical @ +25°C, 230 VAC input voltage & rated output current, unless otherwise noted. Specifications subject to change without notice.

#### Input

Parameter	Conditions	Min.	Typ.	Max.	Units
Input Voltage Range		90		264	VAC
		120		370	VDC
Input Frequency		47		440	Hz
Input Current	See Model Selection Guide				
Inrush Current	115 VAC		15.0		A Pk
	230 VAC		25.0		
EMI	Meets CISPR Pub. 22/FCC Class B				
EMC	Meets EN 55024				

#### Output

Parameter	Conditions	Min.	Typ.	Max.	Units
Output Voltage	See Model Selection Guide				
Output Current	See Model Selection Guide				
Output Voltage Accuracy	See Note 2		±2.0		%
Line Regulation, See Note 3	V <sub>IN</sub> = Min to Max		±0.2		%
Load Regulation, Single Output	3.3V to 5V output, I <sub>o</sub> = 0% to 100%		±1.0		%
Load Regulation, Single Output	9V to 24V output, I <sub>o</sub> = 0% to 100%		±0.5		%
Load Regulation, Dual Output	Vout 1, I <sub>o</sub> = 10% to 100%		±0.5		%
Load Regulation, Dual Output	Vout 2, I <sub>o</sub> = 10% to 100%		±5.0		%
Ripple/Noise (20 MHz)	Single 3.3V & 5V Outputs		100.0		mVP-P
Ripple/Noise (20 MHz)	All Other Models		150.0		mVP-P
Hold-Up Time	115 VAC		15		mSec
Temperature Coefficient			±0.02		%/°C
Over Voltage Protection	Zener Diode Clamp		120		% of Vo
Short Circuit Protection, See Note 4	Continuous (Autorecovery)				
Overload Protection		105	120		% of I <sub>o</sub>

#### General

Parameter	Conditions	Min.	Typ.	Max.	Units
Isolation Voltage	Input to Output	3,000			VAC
Isolation Resistance	500 VDC	100			MΩ
EMI/RFI	Conducted				EN 55022 Level B
	Electrostatic Discharge (ESD)				EN 61000-4-2 Level B
EMC Compliance	RF Field Susceptibility				EN 61000-4-3
	Electrical Fast Transients/Bursts On Mains				EN 61000-4-4 Level 3 2 kV
	Surge				EN 61000-4-5 Level 3 1kV/2 kV
Switching Frequency			132		kHz

#### Environmental

Parameter	Conditions	Min.	Typ.	Max.	Units
Operating Temperature Range	Ambient	-40	+25	+70	°C
Storage Temperature Range		-40		+125	°C
Cooling	Free Air Convection (See Derating Curve)				
Humidity	RH, Non-condensing			95	%

#### Physical

Case Size	1.44 x 1.06 x 0.67 Inches (36.5 x 27.0 x 17.1 mm)				
Case Material	Non-Conductive Plastic & Fiberglass (UL94-V0)				
Weight	0.91 Oz (26g)				

#### Reliability Specifications

Parameter	Conditions	Min.	Typ.	Max.	Units
MTBF	MIL HDBK 217F, 25°C, Gnd Benign	350			kHours
Safety Standards	UL 60950, EN 60950				
Safety Approvals	UL, cUL; File No. E245422				
Safety Class	IEC 61140 Class II				

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