

MPM-10PB Series

Single Output, 10W Compact "Power Brick" AC/DC Power Supplies



Key Features:

- 10W Output Power
- Universal 90-264 VAC Input
- EN 60950 Approved (UL)
- Meets IEC Safety Class II
- Meets EN 55022 B
- Five Standard Models
- Industry Standard Pin-Out
- >330 kHour MTBF

Chassis Mount
Option Available!



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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		20.0		A Pk
	230 VAC		40.0		
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			±2.0		%
Line Regulation	V _{IN} = Min to Max		±0.3		%
Load Regulation	I _o = 5% to 100%		±1.0		%
Ripple (20 MHz)	See Note 1	<±0.2% V _{out} + 40 mV Max (V _{P-P})			
Noise	See Note 1	<±0.5% V _{out} + 50 mV Max (V _{P-P})			
Hold-Up Time	115 VAC		15		mSec
	230 VAC		56		
Temperature Coefficient			±0.02		%/°C
Over Voltage Protection	Zener Diode Clamp		120		% of V _o
Short Circuit Protection, See Note 2	Continuous (Autorecovery)				
Overload Protection		105	120		% of I _o

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			
	RF Field Susceptibility	EN 61000-4-3			
	Electrical Fast Transients/Bursts On Mains	EN 61000-4-4 Level 3 2 kV			
EMC Compliance	Surge	EN 61000-4-5 Level 3			1kV/2 kV
			125		kHz

Environmental

Parameter	Conditions	Min.	Typ.	Max.	Units
Operating Temperature Range	Ambient	-40	+25	+70	°C
Storage Temperature Range		-40		+85	°C
Cooling	Free Air Convection (See Derating Curve)				
Humidity	RH, Non-condensing			85	%

Physical

Case Size	2.06 x 1.07 x 0.93 Inches (52.4 x 27.2 x 23.5 mm)				
Case Material	Non-Conductive Plastic & Fiberglass (UL94-V0)				
Weight	1.90 Oz (54g)				

Reliability Specifications

Parameter	Conditions	Min.	Typ.	Max.	Units
MTBF	MIL HDBK 217F, 25°C, Gnd Benign	250			kHours
Vibration	10-55 Hz, 20G 1 min/1 Cycle. Period of 3 min each along X, Y & Z Axis				
Safety Approvals	UL, cUL; File No. E245422				
Safety Class	IEC 61140 Class II				

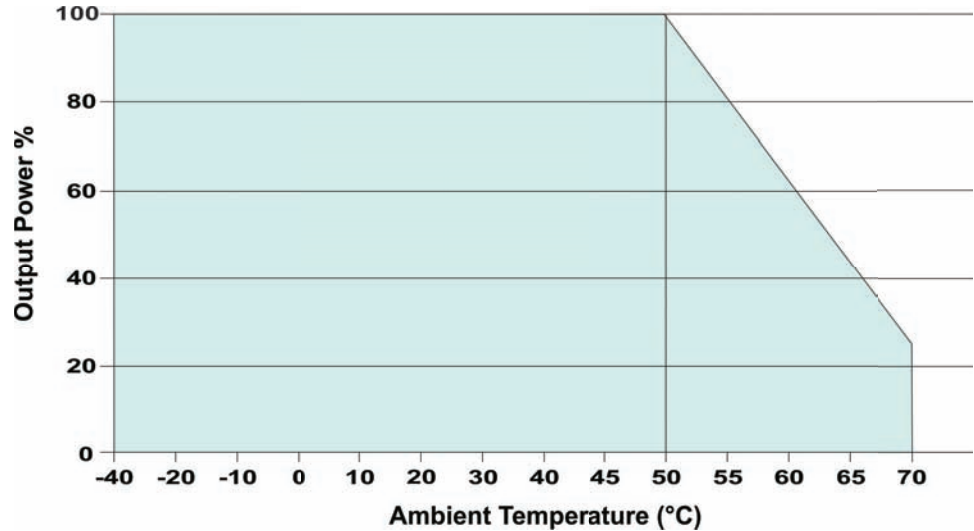
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Model Number	Input		Voltage (VDC)	Output		Maximum Capacitive Load (μF)	Maximum Output Power (W)	Efficiency (% Typ)
	Current (A)			Current				
	115 VAC	230 VAC	Max. (A)	Min. (%)				
MPM-10S-03PB	0.220	0.150	3.3	2.500	0.0	7,500	10.00	74
MPM-10S-05PB	0.220	0.150	5.0	2.000	0.0	4,000	10.00	79
MPM-10S-12PB	0.220	0.150	12.0	0.833	0.0	8,500	10.00	82
MPM-10S-15PB	0.220	0.150	15.0	0.667	0.0	3,500	10.00	78
MPM-10S-24PB	0.220	0.150	24.0	0.417	0.0	1,200	10.00	80

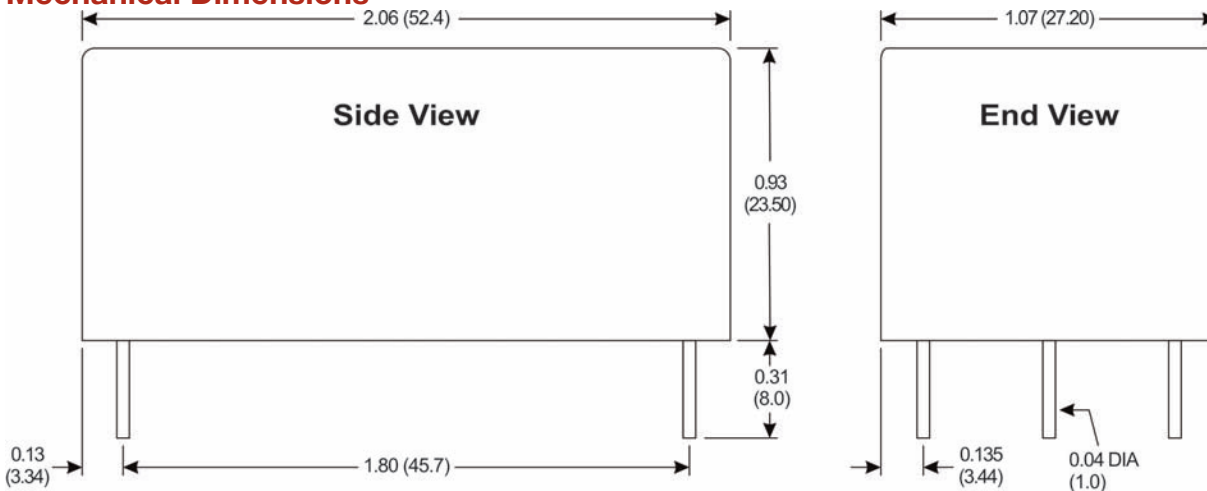
Notes:

1. Ripple and noise are measured at 20 Mhz bandwidth with a 0.1μF and a 47 μF capacitor connected in parallel as close to the unit output terminals as possible.
2. Output short circuit protection is provided by a "hiccup mode" circuit. The unit recovers automatically when the fault condition is removed.
3. Operation at under no load conditions will not damage these units.
4. It is recommended that a fuse be used on the input of a power supply for protection. For the **MPM-10PB** series, a 2A/250 VAC slow blow should be used.

Derating Curve



Mechanical Dimensions



Pin Connections

Pin	Function
1	AC-Neutral
2	AC-Line
3	+Vout
4	-Vout

Notes:

- All dimensions are typical in inches (mm)
- Tolerance x.xx = ±0.01 (±0.25)



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