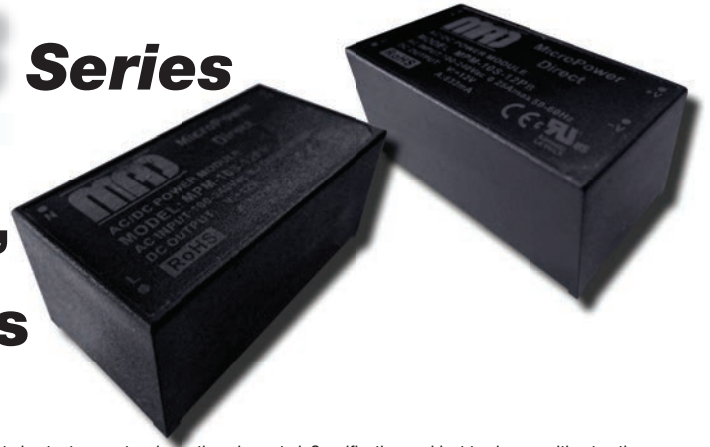


# MPM-10PB Series

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



### Key Features:

- 10W Output Power
- Universal 85-264 VAC Input
- EN 60950 Approved (UL)
- Meets IEC Safety Class II
- Meets EN 55022 B
- Meets ErP Directive
- Industry Standard Pin-Out
- >300 kHour MTBF



### Electrical Specifications

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

Parameter	Conditions	Min.	Typ.	Max.	Units
Input Voltage Range		85		264	VAC
		120		370	VDC
		47		440	Hz
Input Frequency					
Input Current	See Model Selection Guide				
Inrush Current	115 VAC			15.0	A Pk
	230 VAC			30.0	
No Load Power Consumption				0.3	W

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 <sub>IN</sub> = Min to Max			±1.0	%
Load Regulation	I <sub>OUT</sub> = 10% to 100%			±1.0	%
Ripple & Noise (20 MHz), See Note 1	3.3V and 5V Models		1.5	1.8	% V <sub>P-P</sub> of V <sub>OUT</sub>
	12V, 15V, and 24V Models		0.8	1.0	
Hold-Up Time	115 VAC		20		
	230 VAC		60		mSec
Temperature Coefficient			±0.01	±0.02	%/°C
Over Voltage Protection	Zener Diode Clamp		120		%V <sub>OUT</sub>
Over Temperature Protection	Autorecovery (at 67 °C)		90		°C
Short Circuit Protection	Continuous (Autorecovery)				
Overload Protection	Foldback, Autorecovery	105			%W

Parameter	Conditions	Min.	Typ.	Max.	Units
Isolation Voltage	Input to Output	3,000			VAC
Isolation Resistance	500 VDC	100			MΩ
Switching Frequency			125		kHz

Parameter	Standard	Min.	Typ.	Max.	Units
Radiated Emissions	EN 55022			Class B	
Conducted Emissions	EN 55022			Class B	
ESD	EN 61000-4-2			Criteria B; ±8 kV Air/±4 kV Contact	
RS	EN 61000-4-3			Criteria A; 10V/m	
EFT	EN 61000-4-4			Criteria B; ±2 kV	
Surge	EN 61000-4-5			Criteria B; ±1 kV	
CS	EN 61000-4-6			Criteria B; 10 Vrms	
PFM	EN 61000-4-8			Criteria A; 30A/m	
Voltage Dips	EN 61000-4-11			Criteria B; 10 mS	

Parameter	Conditions	Min.	Typ.	Max.	Units
Operating Temperature Range	Ambient	-25	+25	+70	°C
Storage Temperature Range		-40		+105	°C
Cooling	Free Air Convection (See Derating Curve)				
Humidity	RH, Non-condensing			85	%

Parameter	Conditions	Min.	Typ.	Max.	Units
Case Size		2.06 x 1.07 x 0.93 Inches (52.4 x 27.2 x 23.50 mm)			
Case Material		Non-Conductive Black Plastic (UL94-V0)			
Weight		1.90 Oz (54g)			

Parameter	Conditions	Min.	Typ.	Max.	Units
MTBF	MIL HDBK 217F, 25°C, Gnd Benign	300			kHours
Safety Standards	EN 60950				
Safety Class	IEC 60536 Class II				
ECO Design	ErP Directive 2009/125/EC				

### MicroPower Direct

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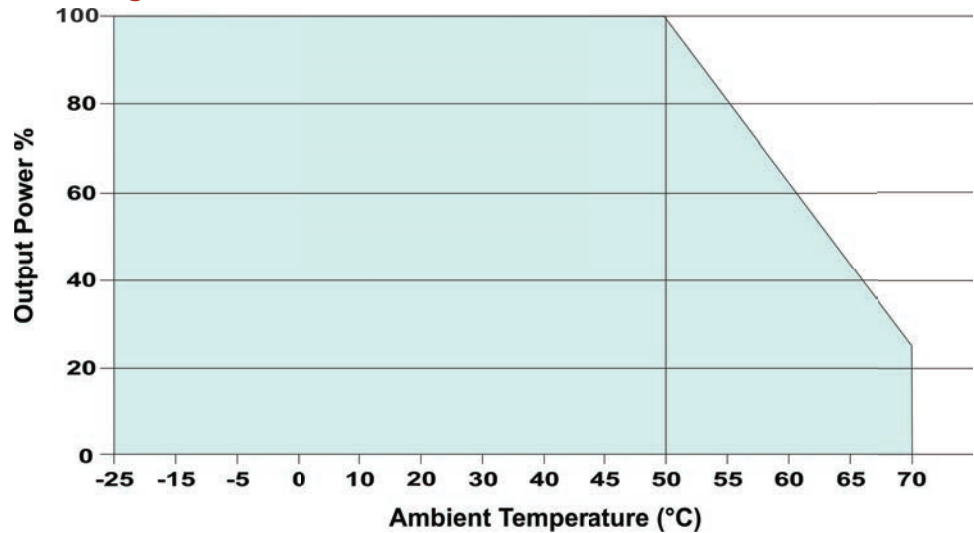
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Model Number	Input		Voltage (VDC)	Output		Maximum Capacitive Load (μF)	Maximum Output Power (W)	Efficiency (% Typ)
	Current (A)			Current				
	115 VAC	230 VAC	Max. (A)	Min. (%)				
MPM-10S-03PB	0.171	0.128	3.3	2.500	10.0	2,200	8.25	70
MPM-10S-05PB	0.201	0.151	5.0	2.000	10.0	2,200	10.00	72
MPM-10S-12PB	0.191	0.143	12.0	0.833	10.0	1,000	10.00	76
MPM-10S-15PB	0.193	0.145	15.0	0.667	10.0	1,000	10.00	75
MPM-10S-24PB	0.201	0.151	24.0	0.417	10.0	680	10.00	72

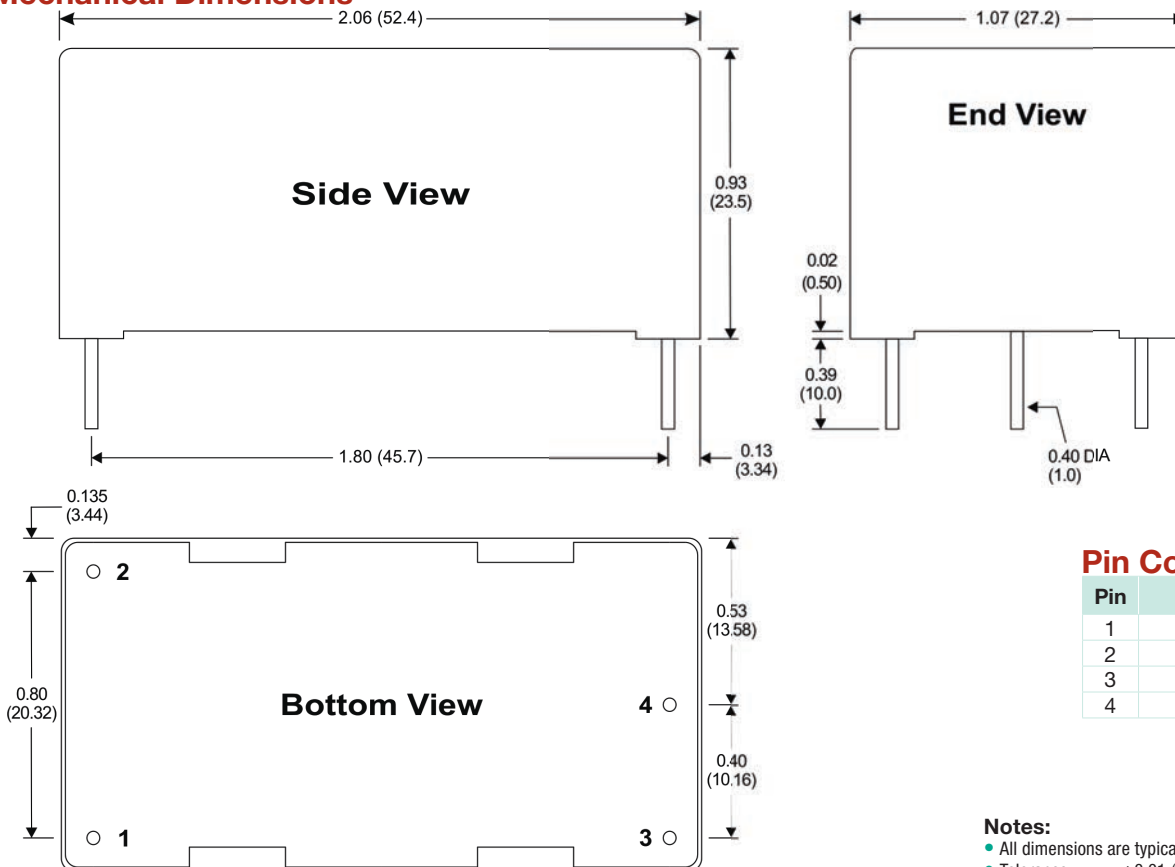
Notes:

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 1.5A/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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