

MPM-20PB Series

Single Output, 20W Compact "Power Brick" AC/DC Power Supplies



Key Features:

- 20W Output Power
- High Power Density Case
- Universal 90-264 VAC Input
- EN 60950 Approved
- Meets IEC Safety Class II
- Meets EN55022 B
- Industry Standard Pin-Out
- >250 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 EN55024					
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		±0.5		%	
Load Regulation	I _o = 5% to 100%		±1.0		%	
Ripple (20 MHz), See Note 1	3.3V & 5V Output Models		75		mVP-P	
	All Other Models		1.0		%V _{out}	
Noise, See Note 1	3.3V & 5V Output Models		100		mVP-P	
	All Other Models		1.0		%V _{out}	
Hold-Up Time	115 VAC		12		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	
EMC Compliance	EMI/RFI	Conducted EN 55022 Level B				
		Electrostatic Discharge (ESD) IEC/EN 61000-4-2 Level B				
		RF Field Susceptibility IEC/EN61000-4-3				
		Electrical Fast Transients/Bursts On Mains IEC/EN 61000-4-4 Level 3 2 kV				
		Surge IEC/EN 61000-4-5 Level 3 1kV/2 kV				
Switching Frequency			133		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			95	%	
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	2.08 Oz (59g)					
Reliability Specifications						
Parameter	Conditions	Min.	Typ.	Max.	Units	
MTBF	MIL HDBK 217F, 25°C, Gnd Benign	250			kHours	
Safety Approvals	IEN 60950, IEC 60950					
Safety Class	IEC 61140 Class II					

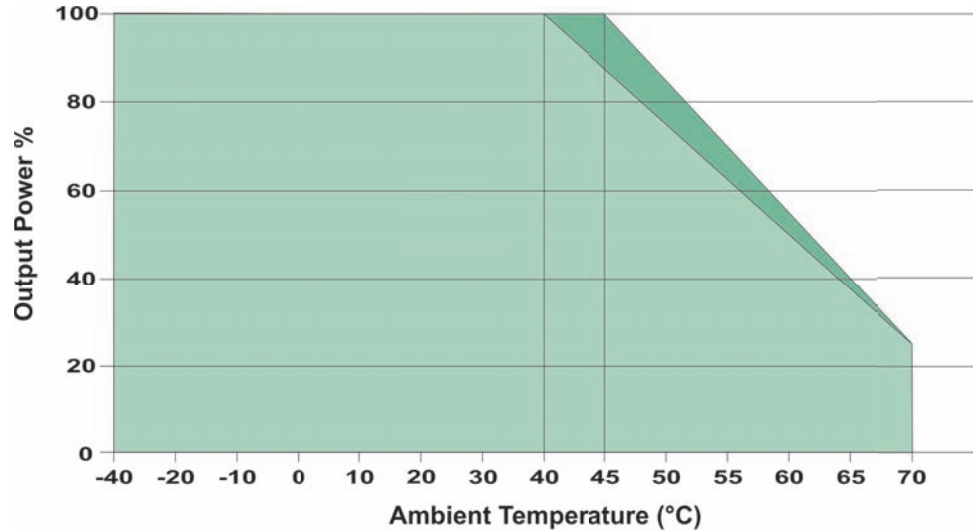
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Model Number	Input		Voltage (VDC)	Output		Maximum Capacitive Load (μF)	Maximum Output Power (W)	Efficiency (% Typ)
	Current (A)			Current (A)				
	115 VAC	230 VAC	Max. (A)	Min. (%)				
MPM-20S-03PB	0.385	0.250	3.3	3,600	0.0	4,500	11.88	74
MPM-20S-05PB	0.385	0.250	5.0	3,600	0.0	3,500	18.00	78
MPM-20S-12PB	0.385	0.250	12.0	1,660	0.0	1,800	20.00	83
MPM-20S-15PB	0.385	0.250	15.0	1,330	0.0	1,500	20.00	84
MPM-20S-24PB	0.385	0.250	24.0	833	0.0	1,200	20.00	84

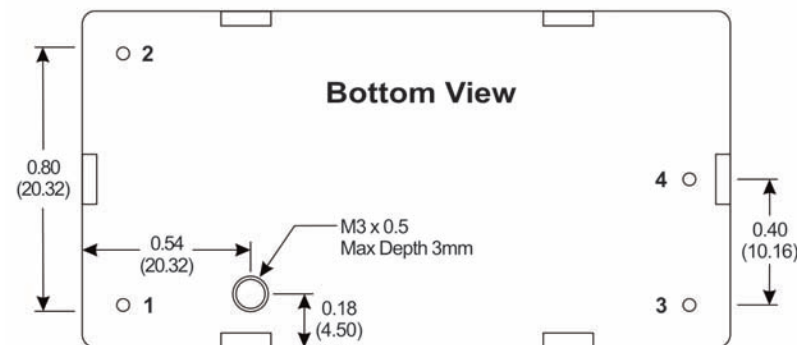
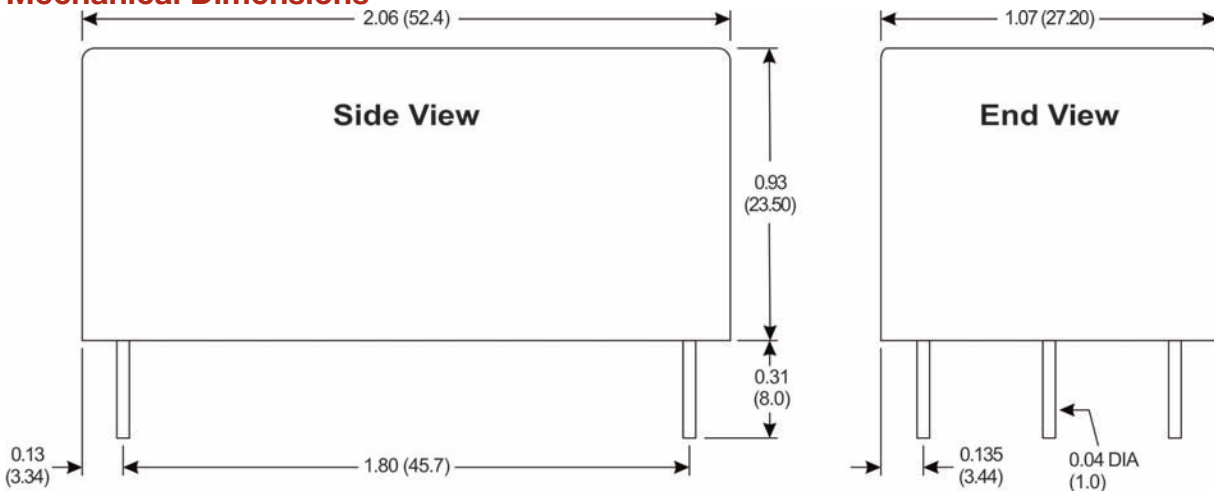
Notes:

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-20PB** 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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