

MPM-60PB Series

Single Output, 60W Compact “Power Brick” AC/DC Power Supplies



Key Features:

- 60W Output Power
- High Power Density Case
- Universal 85-265 VAC Input
- EN 60950 Approved (UL)
- -40°C to + 70°C Operation
- Meets EN 55022 B
- 4,000 VAC I/O Isolation
- >130 kHour MTBF



MicroPower Direct

292 Page Street
Suite D
Stoughton, MA 02072
USA

T: (781) 344-8226
F: (781) 344-8481
E: sales@micropowerdirect.com
W: www.micropowerdirect.com



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		85		265	VAC
Input Frequency		100		370	VDC
Input Current		47		63	Hz
Inrush Current	See Model Selection Guide				
Leakage Current	115 VAC		30.0		A Pk
EMI	230 VAC		50.0		
EMC				0.5	mA
	Meets CISPR Pub. 22/FCC Class B				
	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		%
Output Voltage Adjustment			±10.0		%
Line Regulation	V _{IN} = Min to Max		±1.0		%
Load Regulation	I _O = 5% to 100%		±1.0		%
Ripple (20 MHz), See Note 1		<±0.2%	V _{out} + 40 mV		mVp-p
Noise, See Note 1		<±0.5%	V _{out} + 50 mV		mVp-p
Hold-Up Time	115 VAC		10		mSec
	230 VAC		60		
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		150			% of I _O

General

Parameter	Conditions	Min.	Typ.	Max.	Units
Isolation Voltage	Input to Output	4,000			
	Input to FG	1,500			VAC
	Output to FG	500			
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
EMC Compliance	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			100		kHz

Environmental

Parameter	Conditions	Min.	Typ.	Max.	Units
Operating Temperature Range	Ambient	-40	+25	+70	°C
Storage Temperature Range		-50		+85	°C
Cooling	Free Air Convection (See Derating Curve)				
Humidity	RH, Non-condensing			95	%

Physical

Case Size	4.30 x 2.30 x 1.18 Inches (109.0 x 58.5 x 30.0 mm)
Case Material	Non-Conductive Plastic & Fiberglass (UL94-V0)
Weight	10.92 Oz (310g)

Reliability Specifications

Parameter	Conditions	Min.	Typ.	Max.	Units
MTBF	MIL HDBK 217F, 25°C, Gnd Benign	130			kHours
Safety Standards	UL 60950, EN 60950				
Safety Approvals	UL, cUL; File No. E245422				

www.micropowerdirect.com

Model Selection Guide

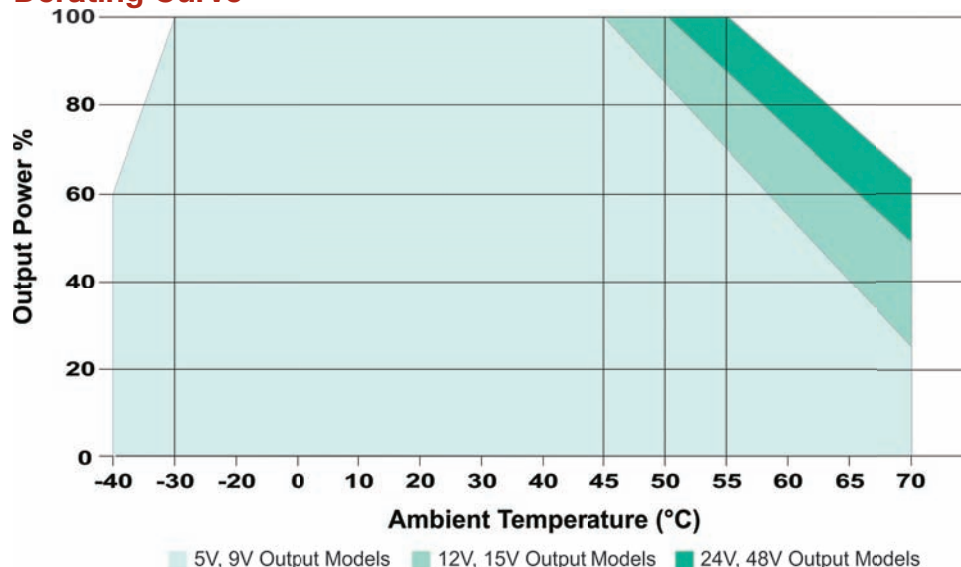
www.micropowerdirect.com

Model Number	Input		Output			Maximum Capacitive Load (μF)	Maximum Output Power (W)	Efficiency (% Typ)
	Current (A)		Voltage (VDC)	Current				
	115 VAC	230 VAC		Max. (A)	Min. (%)			
MPM-60S-05PB	2.0	1.0	5.0	10.0	1.0	80,000	50.0	82
MPM-60S-09PB	2.0	1.0	9.0	6.66	1.0	28,000	60.0	84
MPM-60S-12PB	2.0	1.0	12.0	5.00	1.0	14,000	60.0	86
MPM-60S-15PB	2.0	1.0	15.0	4.00	1.0	12,000	60.0	86
MPM-60S-24PB	2.0	1.0	24.0	2.50	1.0	4,000	60.0	86
MPM-60S-48PB	2.0	1.0	48.0	1.25	1.0	950	60.0	86

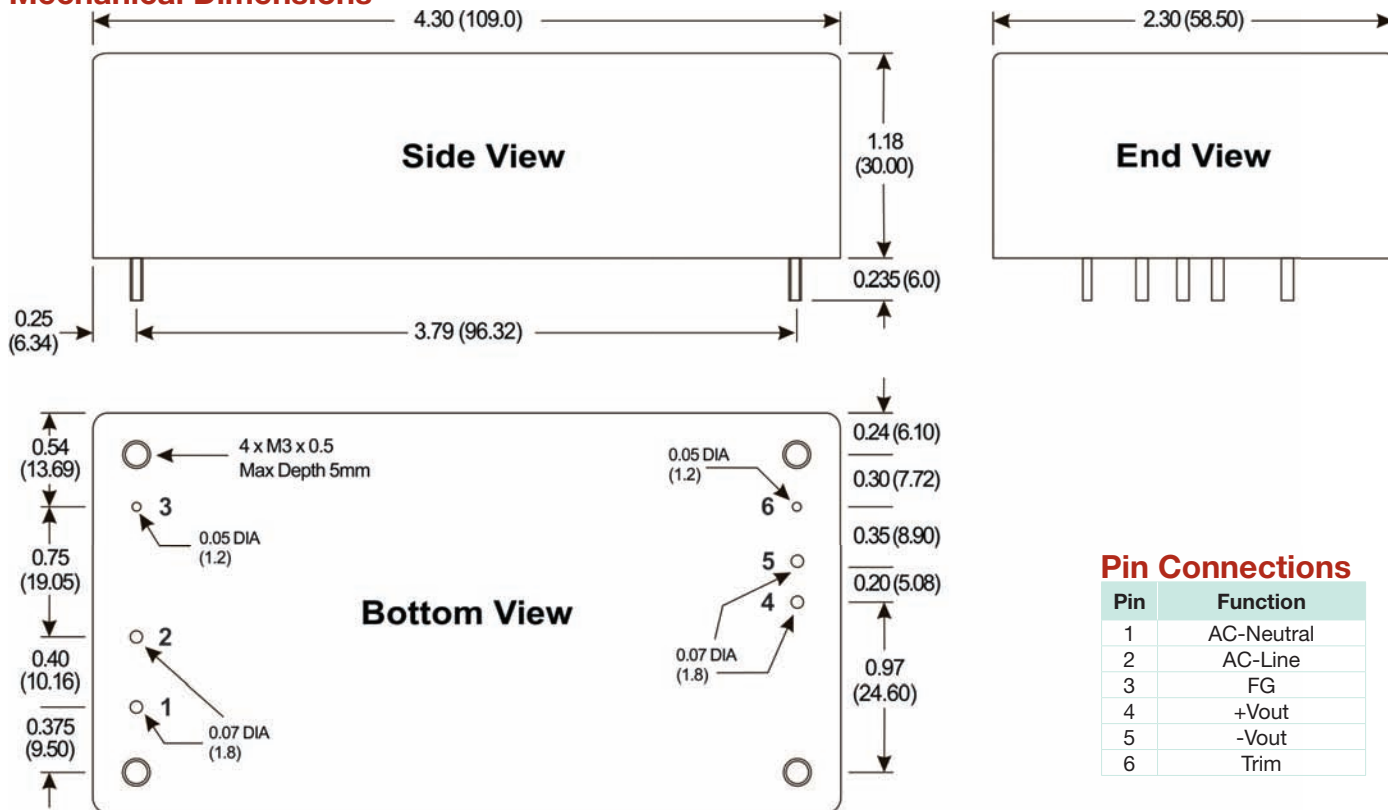
Notes:

1. Ripple and noise are measured at 20 Mhz bandwidth with a 0.1μ F and a 47μ F 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-60PB** series, a 4A/250 VAC slow blow should be used.

Derating Curve



Mechanical Dimensions



Notes:

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



MicroPower Direct
We Power Your Success - For Less!

292 Page Street Ste D Stoughton, MA 02072 • TEL: (781) 344-8226 • FAX: (781) 344-8481 • E-Mail: sales@micropowerdirect.com