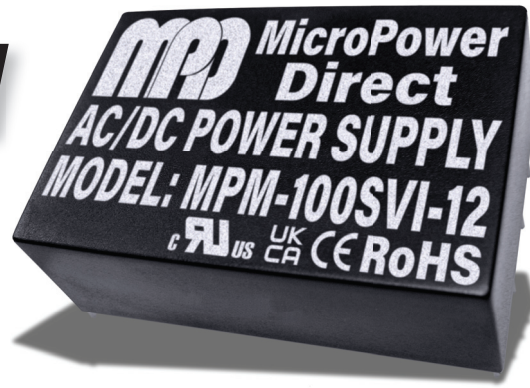


# MPM-100SVI

## Compact, Wide Input, 100W, High Isolation AC/DC Power Supplies



### Key Features:

- 100W Output Power
- Universal 90-264 VAC Input
- 4,300 VAC Isolation
- Compact Size
- EN 62368 Approved (UL)
- 93% Efficiency
- OVC Category III
- -40°C to +85°C Temp Range
- Meets EN 55032 B
- >250 kHour MTBF
- Isolation Class II



### MicroPower Direct

46 Eastman Street  
Unit 1  
Easton, MA 02375  
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.

Parameter	Conditions	Min.	Typ.	Max.	Units
Input Voltage Range, See Note 1		90		264	VAC
		127		370	VDC
Input Frequency		47		63	Hz
Input Current	See Model Selection Guide				
Inrush Current, <2ms	115 VAC			45.0	A Pk
	230 VAC			90.0	
Leakage Current	100 - 240 VAC			0.25	mA
No Load Power Consumption	115/230 VAC			<0.15	W

Parameter	Conditions	Min.	Typ.	Max.	Units
Output Voltage Accuracy			±2.0		%
Line Regulation	V <sub>IN</sub> = Min to Max		±0.5		%
Load Regulation	0 to 100%		±1.0		%
Minimum Load			0		%
Ripple/Noise, See Note 1	12V Output		120		mV <sub>P-P</sub>
	24V Output		200		
	48V Output		240		
Hold-Up Time	230 VAC		20		mSec
Temperature Coefficient			±0.05		%/°C
Over Voltage Protection	Autorecovery				
Over Power Protection	Autorecovery				
Short Circuit Protection, See Note 2	Hiccup Mode (Autorecovery)				

Parameter	Conditions	Min.	Typ.	Max.	Units
Isolation Voltage	Input to Output	4,300			VAC
EMC	EMI (Conducted/Radiated Emmissions)				EN 55032 Level B
	EMS (Noise Immunity)				EN 55035

Parameter	Conditions	Min.	Typ.	Max.	Units
Operating Temperature Range	(See Derating Curve)	-40	+25	+85	°C
Storage Temperature Range		-40		+85	°C
Cooling	Free Air Convection (See Derating Curve)				
Humidity	RH, Non-condensing			95	%
Altitude During Operation	OVC II			5,000	m
	OVC III			2,000	

Case Size & Weight	See Mechanical Diagram (Page 2)				
Case Material	Non-Conductive Plastic Resin (UL94-V0)				

Parameter	Conditions	Min.	Typ.	Max.	Units
MTBF	MIL HDBK 217F, 25°C, Gnd Benign	250			kHours
Safety Standards	UL/cUL 62368-1 recognition (UL certificate)				
Over Voltage Category	III: Compliance to EN 61558, Altitude to 2,000 meters				
Vibration	IEC 60068-2-6, 10-500 Hz, 2G 10 min/1 cycle, 60 min each along X, Y, Z axis				
Shock	IEC 60068-2-27				

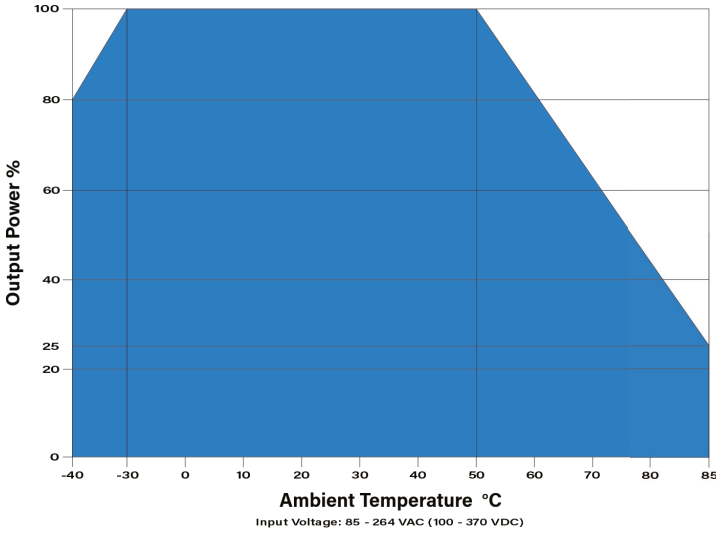
[www.micropowerdirect.com](http://www.micropowerdirect.com)

# Model Selection Guide

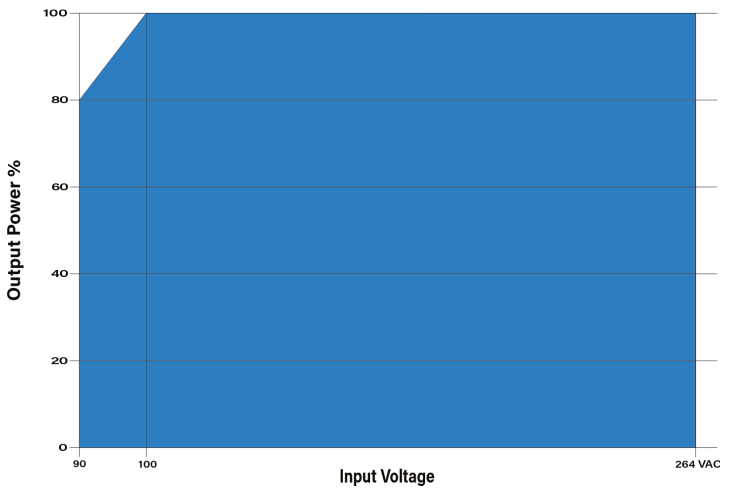
Model Number	Input		Output			Capacitive Load ( $\mu$ F, Max)	Efficiency (230 VAC, %, Typ)
	Current (A Max)		Voltage (VDC)	Current (mA Max)	Power (W)		
	115 VAC	230 VAC					
MPM-100SVI-12	2.0	1.0	12.0	8,333	100.0	4,000	93.0
MPM-100SVI-24	2.0	1.0	24.0	4,166	100.0	2,000	93.5
MPM-100SVI-48	2.0	1.0	48.0	2,083	100.0	1,000	93.0

- Notes:**
- Ripple and noise are measured at 20 Mhz bandwidth with a  $0.1\mu$ F and a  $47\mu$ F capacitor connected in parallel as close to the unit output terminals as possible.
  - Output short circuit protection is provided by a "hiccup mode" circuit. The unit recovers automatically when the fault condition is removed.
  - Caution:** The unit uses Double Pole neutral fusing. Disconnect the mains before servicing. For more information, contact the factory.

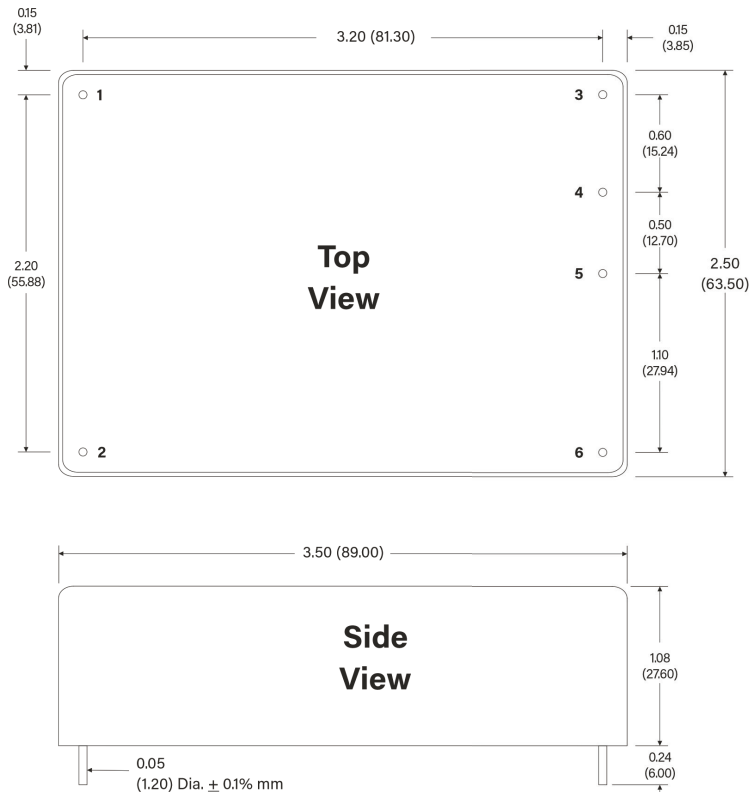
## Power Derating Curve, Temperature



## Power Derating Curve, Input Voltage



## Mechanical Dimensions



## Pin Connections

Pin	Function
1	AC-Neutral
2	AC-Line
3	+V <sub>OUT</sub>
4	Trim
5	-V <sub>OUT</sub>
6	On/Off

- Notes:**
- All dimensions are typical in inches (mm)
  - Tolerance x.xx =  $\pm 0.02$  ( $\pm 0.50$ )
  - Module Weight is: 10.58 Oz (300g)

## Output Trim Connection

