MPM-40SVI

Compact, Wide Input, 40W, High Isolation AC/DC Power Supplies





Key Features:

- 40W Output Power
- Universal 90-305 VAC Input
- 4,300 VAC Isolation
- Compact Size
- EN 62368 Approved (UL)
- Efficiency to 90%
- OVC Category III
- -40°C to +85°C Temp Range
- Meets EN 55032 B
- >300 kHour MTBF
- Isolation Class II

MicroPower Direct
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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, See Note 1		90		305	VAC
		120		430	VDC
Input Frequency		47		440	Hz
Input Current	See Model Selection Guide				
Inrush Current, <2ms	115 VAC			60.0	A Pk
	230 VAC			100.0	
Leakage Current	100 - 240 VAC			0.25	mA
No Load Power Consumption	115/230 VAC			<0.1	W

Output

Parameter	Conditions	Min.	Typ.	Max.	Units
Output Voltage Accuracy			±2.0		%
Line Regulation	VIN = Min to Max		±0.5		%
Load Regulation	0 to 100%		±1.0		%
Minimum Load			0		%
Ripple/Noise, See Note 1	5V & 12V Output		120		mVP-P
	15V Output		150		
	24V Output		240		
	48V Output		480		
Hold-Up Time	230 VAC	30			mSec
Temperature Coefficient			±0.05		%/°C
Over Voltage Protection	Zener Diode Clamp				
Over Power Protection	Autorecovery				
Short Circuit Protection, See Note 2	Hiccup Mode (Autorecovery)				

General

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

Environmental

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

Physical

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

Reliability Specifications

Parameter	Conditions	Min.	Typ.	Max.	Units
MTBF	MIL HDBK 217F, 25°C, Gnd Benign	300			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				

CompuMess Elektronik GmbH · Lise-Meitner-Straße 4 · D-85716 Unterschleißheim
Telefon (089) 321501-0 · Telefax (089) 321501-11
info@compumess.de · www.compumess.de · www.netzteile.de

CompuMess Elektronik
Power mit System

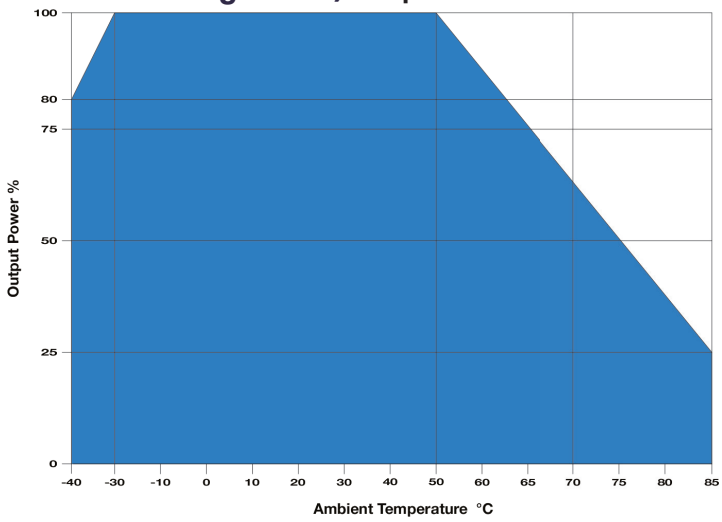
Model Selection Guide

Model Number	Input Current (mA Max)		Output Voltage (VDC)	Output Current (mA Max)	Output Power (W)	Capacitive Load (μF, Max)	Efficiency (230 VAC, %, Typ)
	115 VAC	230 VAC					
MPM-40SVI-05	1,000	500	5.0	7,000	35.0	8,000	87
MPM-40SVI-12	1,000	500	12.0	3,333	40.0	6,000	90
MPM-40SVI-15	1,000	500	15.0	2,666	40.0	5,000	90
MPM-40SVI-24	1,000	500	24.0	1,666	40.0	1,200	89
MPM-40SVI-48	1,000	500	48.0	833	40.0	820	89

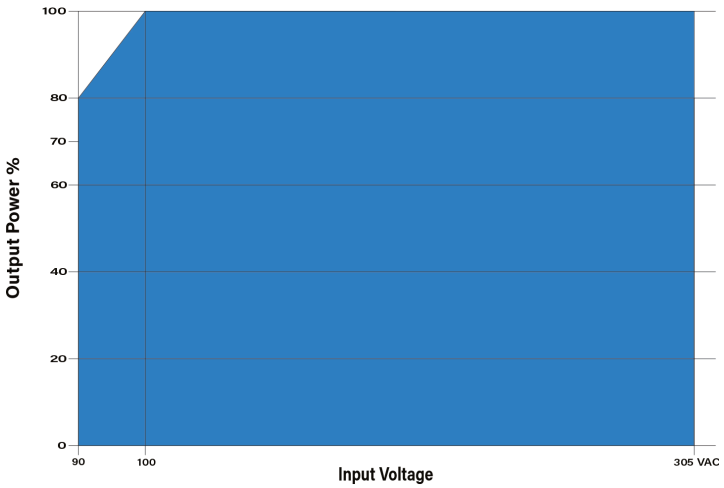
Notes:

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. **Caution:** The unit uses Double Pole neutral fusing. Disconnect the mains before servicing. For more information, contact the factory.

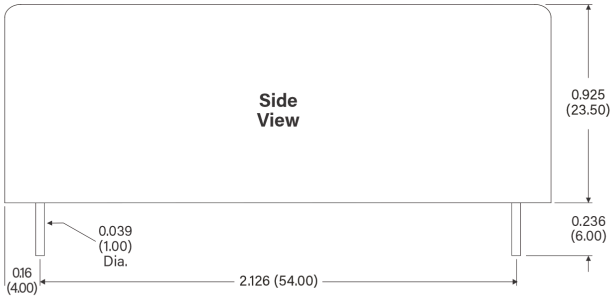
Power Derating Curve, Temperature

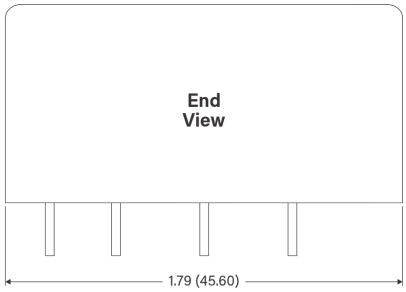


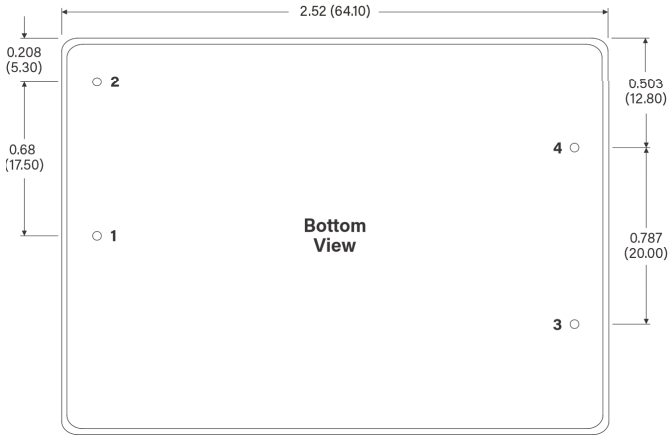
Power Derating Curve, Input Voltage



Mechanical Dimensions







Pin Connections

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

Notes:

- All dimensions are typical in inches (mm)
- Tolerance x.xx = ±0.02 (±0.50)
- Module Weight is: 4.40 Oz (125g)

MPD MicroPower Direct

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