

MPM-150SVI

150W, Compact, High Isolation Module AC/DC Power Supplies



Key Features:

- 150W Output Power
- 90-264 VAC Input
- 4,300 VAC Isolation
- Compact Size
- Efficiency to 93.5%
- -40°C to +85°C Temp
- Meets EN 55032 B
- >250 kHour MBTF
- UL62368 Approval
- OVC III (EN61558)
- Double Insulation



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Electrical Specifications

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

Input						
Parameter	Conditions	Min.	Typ.	Max.	Units	
Input Voltage Range	AC Input	90		264	VAC	
	DC Input	127		370	VDC	
Input Frequency		47		63	Hz	
Input Current	115 VAC			2,000	mA	
	230 VAC			1,000		
Inrush Current (Cold Start)	115 VAC		45		A	
	230 VAC		90			
Power Factor	Full Load			PF > 0.9		

Output					
Parameter	Conditions	Min.	Typ.	Max.	Units
Output Voltage Accuracy			±2		%
Line Regulation			±0.5		%
Load Regulation	0% to 100% Load		±1		%
Ripple & Noise (20 MHz), See Note 1	12V Output			120	mV P - P
	24V Output			200	
	48V Output			240	
Standby Power Consumption	115/230 VAC			0.3	W
Hold-Up Time			10		ms
Temperature Coefficient			0.05		%/°C
Short Circuit Protection	Hiccup Mode (Autorecovery)				

General						
Parameter	Conditions	Min.	Typ.	Max.	Units	
Isolation Voltage	See Note 3	4,300			VAC	

EMI Characteristics			
Parameter	Standard	Criteria	Level
Radiated Emissions	CISPR32/EN 55032		Class B
Conducted Emissions	CISPR32/EN 55032		Class B
EMS Noise Immunity	EN55035		

Environmental						
Parameter	Conditions	Min.	Typ.	Max.	Units	
Operating Temperature Range	Ambient	-40		+85	°C	
Storage Temperature Range		-40		+85	°C	
Cooling	Free Air Convection					
Storage Humidity	Non-condensing			95	%RH	

Physical						
Case Size	3.5 x 2.5 x 1.09 in (See Mechanical Drawing on Page 2)					
Case Material	Flame Retardant, Non-Conductive, Black Plastic (UL94-V0)					
Weight	11.29 oz (320g) (See Mechanical Drawing on Page 2)					

Reliability Specifications

Parameter	Conditions	Min.	Typ.	Max.	Units
MTBF	MIL HDBK 217F, 25°C, Gnd Benign	0.25			MHours
Safety Standards	UL/cUL 62368-1 recognition (UL certificate)				
Safety Class (Double Insulation)	Class II				

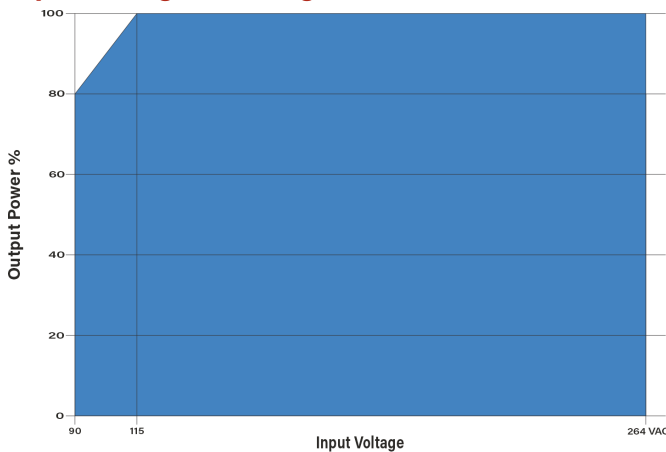
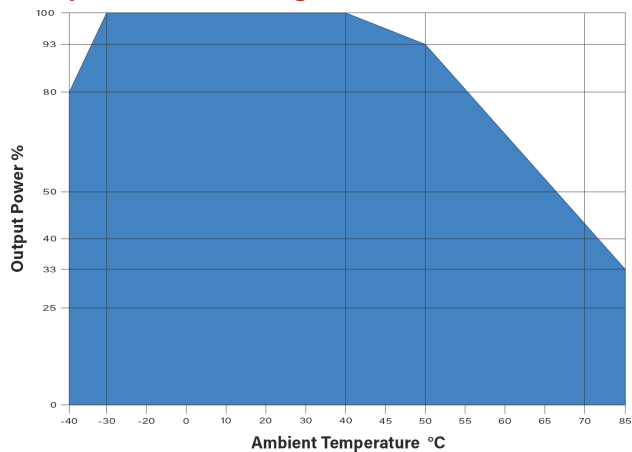
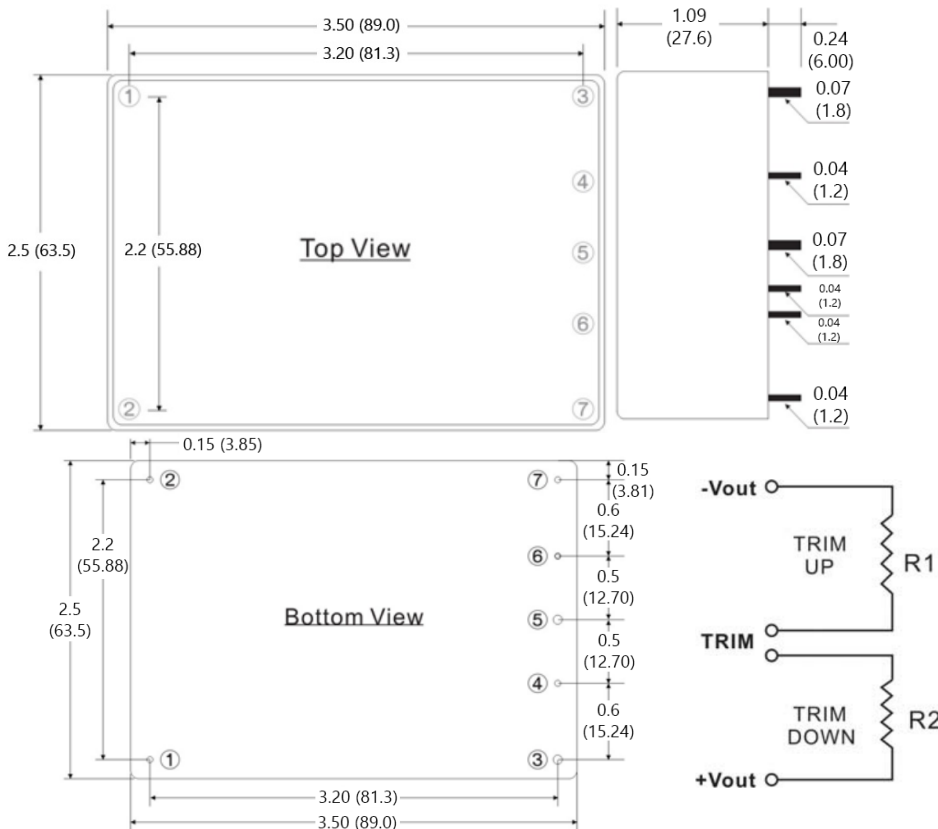
EMI Characteristics

Parameter	Standard	Criteria	Level
Radiated Emissions (RE)	CISPR32/EN55032		B
Conducted Emissions (CE)	CISPR32/EN55032		B
EMS (Noise Immunity)	EN55035		

	Model Number	Input		Output			Output Capacitive Load (μF Max)	Efficiency (% Typ)
		Current (mA)		Voltage (VDC)	Current (mA, Max)	Power (W)		
		115 VAC	230 VAC					
	MPM-150SVI-12	2000	1000	12	12500	150	6000	93
	MPM-150SVI-24	2000	1000	24	6250	150	3000	93.5
	MPM-150SVI-48	2000	1000	48	3125	150	2000	93.5

Notes:

1. Ripple & Noise are measured at 20MHz bandwidth with 0.1 μ F and 47 μ F parallel capacitors.
2. Output short circuit protection is provided by a "hiccup mode" circuit. The unit recovers automatically when the fault condition is removed.
3. Input-output isolation is tested for 60 seconds.
4. It is recommended to add a varistor 14S561K at L/N input side in parallel.
5. This series uses double pole, neutral fusing. Disconnects mains before servicing.

Input Voltage Derating**Temperature Derating****Mechanical Diagrams**

Pin	Φ	Single
1	1.2 $\pm$ 0.1mm	AC IN (N)
2	1.2 $\pm$ 0.1mm	AC IN (L)
3	1.8 $\pm$ 0.1mm	+DC OUT
4	1.2 $\pm$ 0.1mm	TRIM
5	1.8 $\pm$ 0.1mm	-DC OUT
6	1.2 $\pm$ 0.1mm	NO PIN
7	1.2 $\pm$ 0.1mm	ON / OFF (Provide +5VDC Controlled)

Notes:

- All dimensions are typical in inches (mm)
- General tolerance: ± 0.020 (± 0.50)
- Height tolerance: ± 0.040 (± 1.00)
- Weight:**
- Standard Module: 11.29 oz (320g)

Model	R1		R2	
12V	+5%	1%	-5%	-1%
	0	~ 150K	75K	~ 680K
24V	+5%	1%	-5%	-1%
	0	~ 680K	820K	~ 6.8M
48V	+5%	1%	-5%	-1%
	0	~ 330K	1M	~ 7.5M