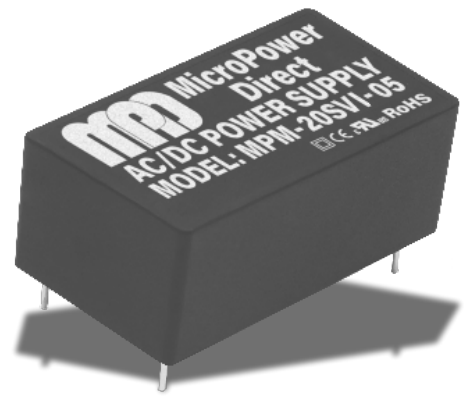


MPM-20SVI

20W, Compact, High Isolation Module AC/DC Power Supplies



Key Features:

- 20W Output Power
- 90-305 VAC Input
- 4,300 VAC Isolation
- Compact Size
- Efficiency to 87%
- -40°C to +85°C Temp
- Meets EN 55032 B
- >400 kHour MBTF
- UL62368 Approval
- OVC III (EN61558)
- Double Insulation



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		305	VAC
	DC Input	120		430	VDC
Input Frequency		47		63	Hz
Input Current	115 VAC			385	mA
	230 VAC			250	
Inrush Current (Cold Start)	115 VAC		30		A
	230 VAC		60		
Leakage Current				0.25	mA RMS
External Fuse (Required)				2A, slow-blow	

Output

Parameter	Conditions	Min.	Typ.	Max.	Units
Output Voltage Accuracy	Single 5, 12, 15, 24V Outputs		±2		%
	Dual 5/12V Output		±5/6		
	Dual ±12, ±15V Outputs		±5		
Line Regulation	Single 5, 12, 15, 24V Outputs		±0.5		%
	Dual Outputs		±5		
Load Regulation	Single 5, 12, 15, 24V Outputs		±1		%
	Dual 5/12V Output, 20-100% symmetric load		±2/4		
	Dual ±12, ±15V Outputs, 25-100% symmetric load		±1		
Ripple & Noise (20 MHz), See Note 1	Single 5, 12V Outputs			120	mV P - P
	Single 15, 24V Outputs			1%V _{OUT}	
Standby Power Consumption	Other Outputs			150	W
	115/230 VAC			0.1	
Hold-Up Time	115 VAC		6		ms
	230 VAC		46		
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, See Page 2	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	2.07 x 1.08 x 0.93 in (See Mechanical Drawing on Page 3)				
Case Material	Flame Retardant, Non-Conductive, Black Plastic (UL94-V0)				
Weight	2.19 oz (62g) (See Mechanical Drawing on Page 3)				

Reliability Specifications

Parameter	Conditions	Min.	Typ.	Max.	Units
MTBF	MIL HDBK 217F, 25°C, Gnd Benign	0.4			MHours
Safety Standards	UL/cUL 62368-1 Recognition (UL Certificate)				
Safety Class (Double Insulation)	Class II				

MicroPower Direct

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Unit 1
Easton, MA 02375
USA

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

Model Selection Guide

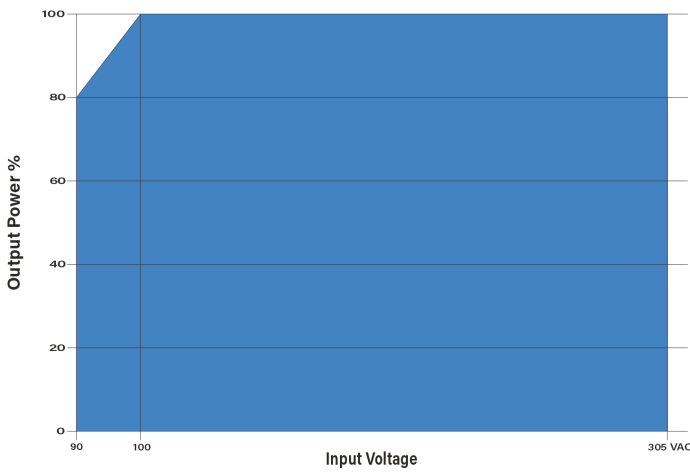
Model Number	Input		Output			Output Capacitive Load (μ F Max)	Efficiency (% Typ)
	Current (mA)		Voltage (VDC)	Current (mA, Max)	Power (W)		
	115 VAC	230 VAC					
MPM-20SVI-05	385	250	5	4000	20	10000	85
MPM-20SVI-12	385	250	12	1670	20	1500	86
MPM-20SVI-15	385	250	15	1330	20	1000	87
MPM-20SVI-24	385	250	24	833	20	470	87
MPM-20SVI-5/12	385	250	5 / 12	2000 / 700	18.4	5000 / 750	81
MPM-20SVI-12D	385	250	\pm 12	833	20	1000	85
MPM-20SVI-15D	385	250	\pm 15	666	20	470	85

Notes:

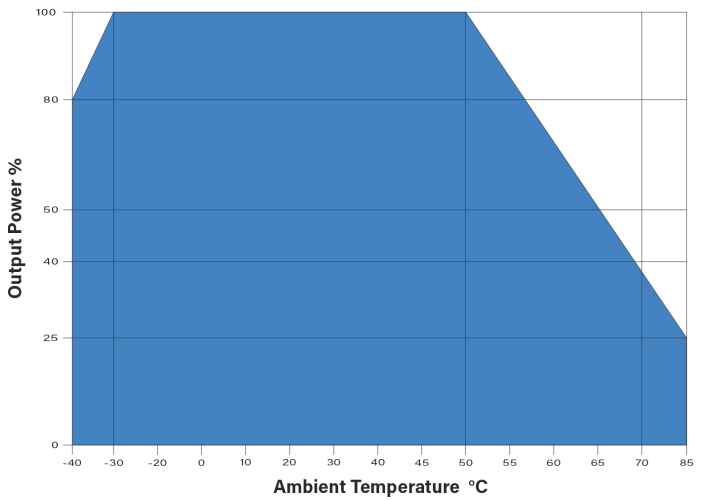
1. Ripple & Noise are measured at 240MHz with 0.1uF and 47uF parallel capacitors.
2. Output short circuit protection is provided by a "hiccup mode" circuit.

- The unit recovers automatically when the fault condition is removed.
3. Input-output isolation is tested for 60 seconds.
 4. The **MPM-20SVI** series requires an external fuse of 2A, slow-blow.

Input Voltage Derating



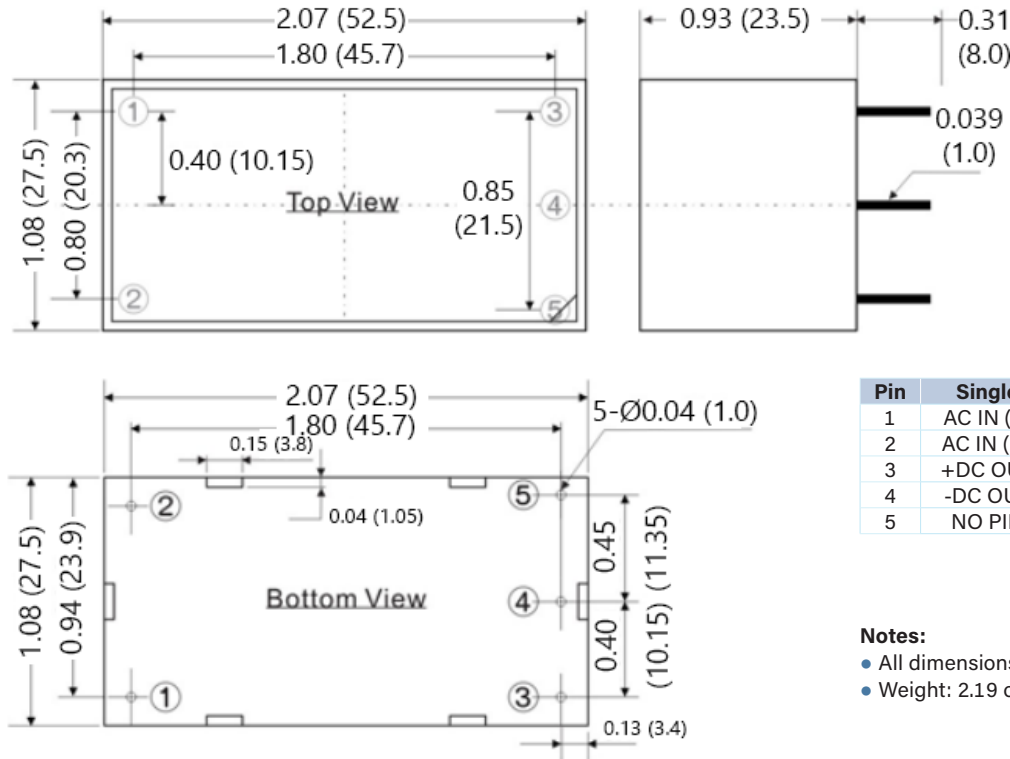
Temperature Derating



EMI Characteristics

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

Mechanical Diagrams



Pin	Single	Dual	MPM-20SVI-5/12
1	AC IN (L)	AC IN (L)	AC IN (L)
2	AC IN (N)	AC IN (N)	AC IN (N)
3	+DC OUT	+DC OUT	+12V OUT
4	-DC OUT	COMMON	+5V OUT
5	NO PIN	-DC OUT	COMMON

Notes:

- All dimensions are typical in inches (mm)
- Weight: 2.19 oz (62g)

MPD has a very wide range of high performance AC/DC power supplies ranging from 600W Uchannel units to 1W units in miniature Single-In-Line (SIP) packages. All are designed and certified to international safety and EMC/EMI standards.

We have AC/DC supplies approved for use in medical equipment, DIN rail supplies, "Green" energy supplies and constant power supplies.

We also offer a wide variety of DC/DC converters, LED Drivers, POL regulators and IGBT drivers. All products are available with short lead times. Call today for complete information or product samples. Or go to our website:

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