

# MACFM-02A

## Wide Input, AC Encapsulated EMC Filter Module



### Key Features:

- 85 to 305 VAC Input
- Compact Case
- 20 dB Attenuation
- -40°C to +85°C Operation
- Chassis Mount Option
- DIN Rail Mount Option
- Low Cost



### 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, See Note 1		85		305	VAC	
Nominal Current, See Note 2				1.5	A	
General						
Parameter	Conditions	Min.	Typ.	Max.	Units	
Test Voltage	60 Sec, 1 mA Leakage Current		2,000		VAC	
Frequency Attenuation		20			dB	
Conducted Emissions	EN 55022	Class B				
Surge	EN 61000-4-5	Criteria B; ±2 kV (1.2 μS/50 μS 2Ω) Criteria B; ±4 kV (1.2 μS/50 μS 12Ω)				
Parameter	Conditions	Min.	Typ.	Max.	Units	
Operating Temperature Range	Ambient	-40	+25	+85	°C	
Storage Temperature Range		-55		+125	°C	
Cooling	Free Air Convection					
Humidity	RH, Non-condensing			95	%	
Physical						
Case Size	Module	See Mechanical Drawing (Page 2)				
	Chassis (A2) Mount	See Mechanical Drawing (Page 2)				
	DIN (A4) Mount	See Mechanical Drawing (Page 2)				
Case Material	Non-Conductive Black Plastic (UL94-V0)					
Weight	Module	0.71 Oz (20g)				
	Chassis (A2) Mount	1.41 Oz (40g)				
	DIN (A4) Mount	2.11 Oz (60g)				

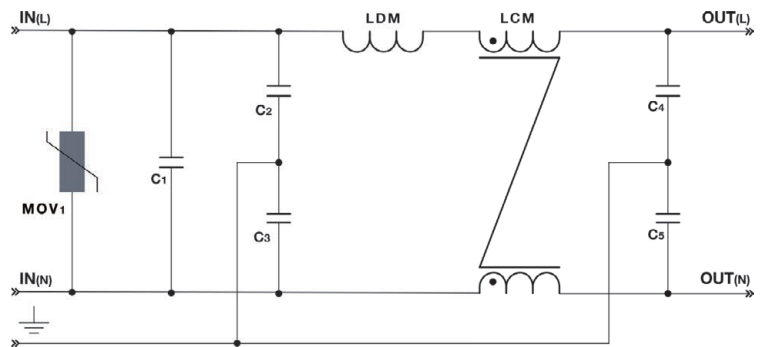
### Notes:

1. The Max input voltage level of the power supply must be less than the maximum specified input of the **MACFM-02A**.
2. The Max input current of the power supply must be less than the maximum specified nominal current of the **MACFM-02A**.

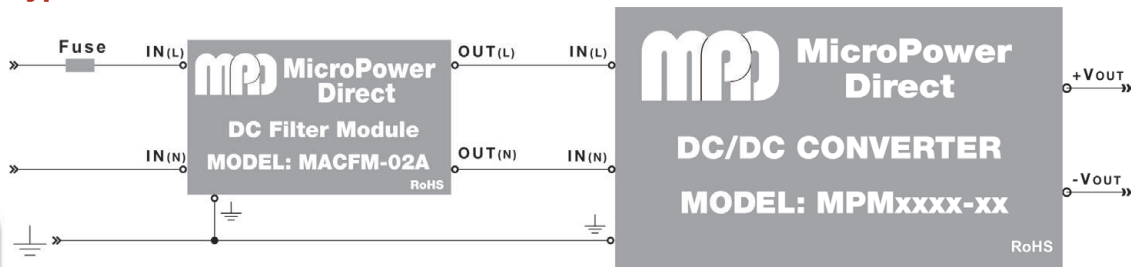
**MACFM-02A** filter modules operate with many standard **MPD** AC/DC power supplies.

With these modules, most AC power supplies will meet the surge requirements of EN 61000-4-5 and the EMS requirements of EN 55022. Contact the factory for information on our full range of filter products.

### Schematic



### Typical Connection



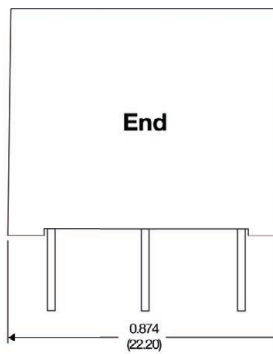
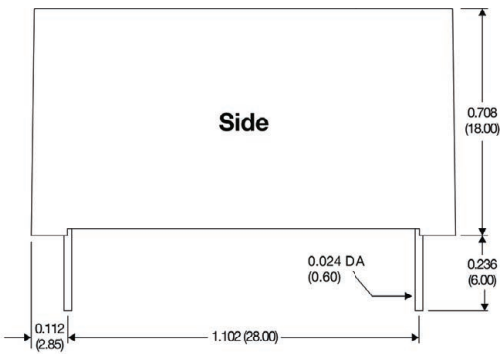
### MicroPower Direct

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

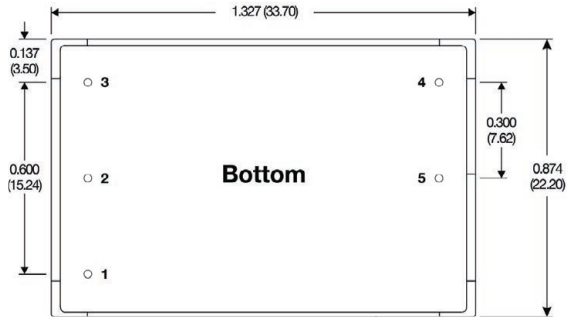


## Mechanical Dimensions

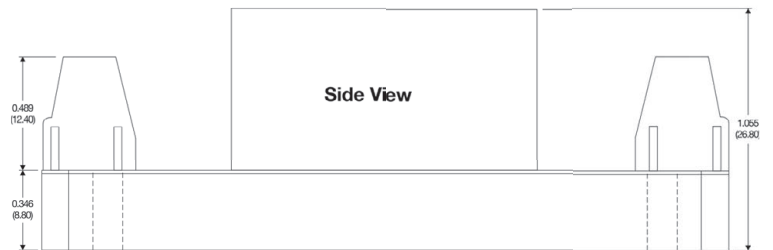
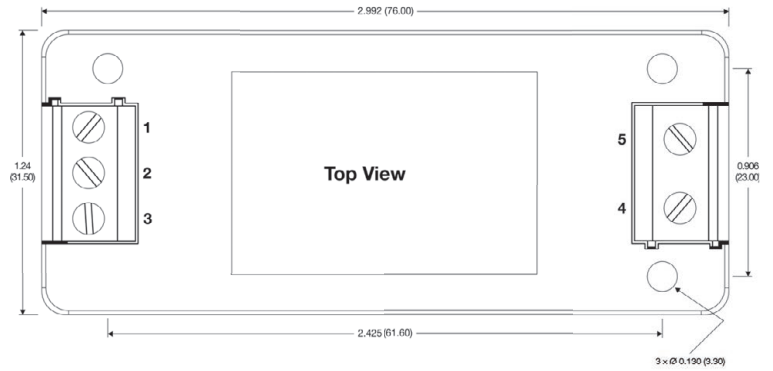


## Pin Connections

Pin	Function
1	GND
2	IN(N)
3	IN(L)
4	OUT(L)
5	OUT(N)



## Mechanical Dimensions: With Chassis Mount Option (A2)



The **MACFM-02A** is available mounted on an adapter plate for mounting to a chassis or on a DIN rail. Mechanical dimensions for these adapters are shown at right. The photo below shows a product mounted on a similar adapter. Please contact the factory for more information.

For the chassis mount option, add suffix "A2" to the model number (i.e. **MACFM-02A-A2**)

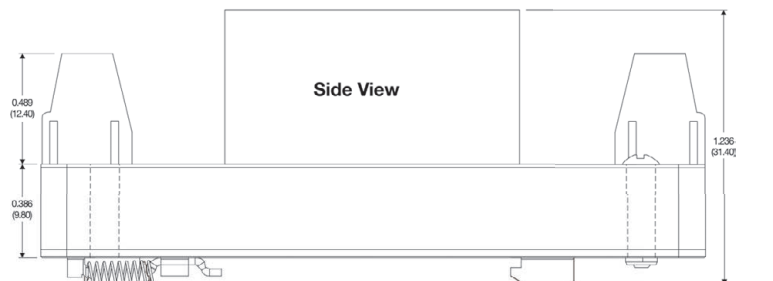
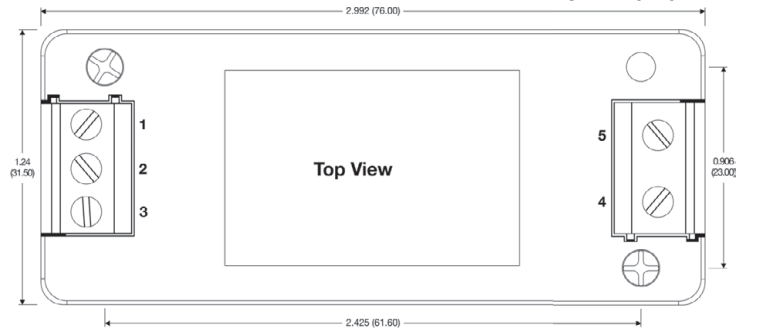
For the DIN rail mount option, add suffix "A4" to the model number (i.e. **MACFM-02A-A4**)

## Pin Connections

Pin	Function
1	GND
2	IN(N)
3	IN(L)
4	OUT(L)
5	OUT(N)

Connection is the same for A2 & A4

## Mechanical Dimensions: With DIN Rail Option (A4)



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## Notes:

- All dimensions are typical in inches (mm)
- Tolerance x.xx = ±0.02 (±0.50)
- Wire range for A2 & A4 connection is 24 - 12 AWG