

# MACFM-03D

## Wide Input, AC Encapsulated EMC Filter Module



### Key Features:

- 85 to 305 VAC Input
- Compact Case
- -40°C to +85°C Operation
- Low Cost

### Electrical Specifications

Specifications typical @ +25°C, nominal 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		85		305	VAC
Nominal Current, See Note 2				0.3	A

### General

Parameter	Conditions	Min.	Typ.	Max.	Units
Test Voltage	60 Sec, 1 mA Leakage Current		2,000		VAC
Conducted Emissions	EN 55022	Class B			
Surge	EN 61000-4-5	Criteria B; ±1 kV (1.2 μS/50 μS 2Ω) Criteria B; ±2 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	See Mechanical Drawing (Page 2)				
Case Material	Non-Conductive Black Plastic (UL94-V0)				
Weight	0.71 Oz (20g)				

### Notes:

1. The Max input voltage level of the power supply must be less than the maximum specified input of the **MACFM-03D**.
2. The Max input current of the power supply must be less than the maximum specified nominal current of the **MACFM-03D**.

RoHS



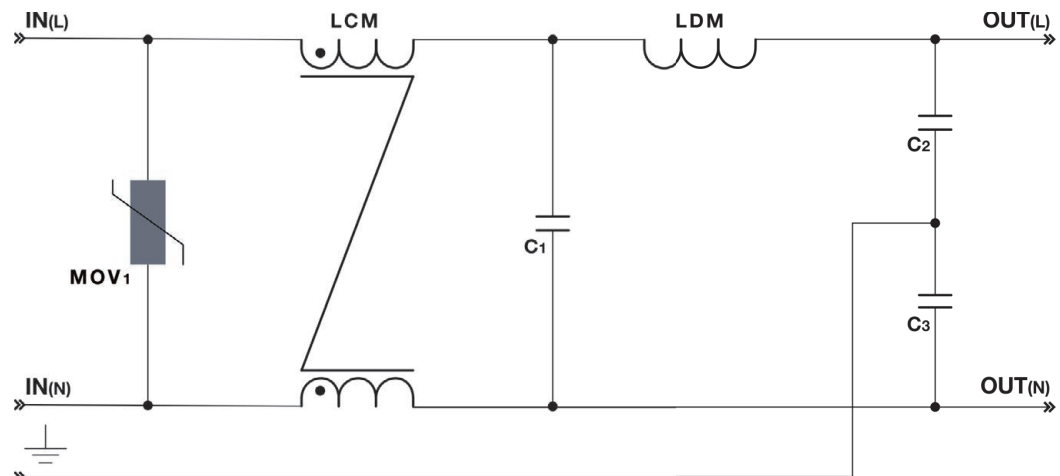
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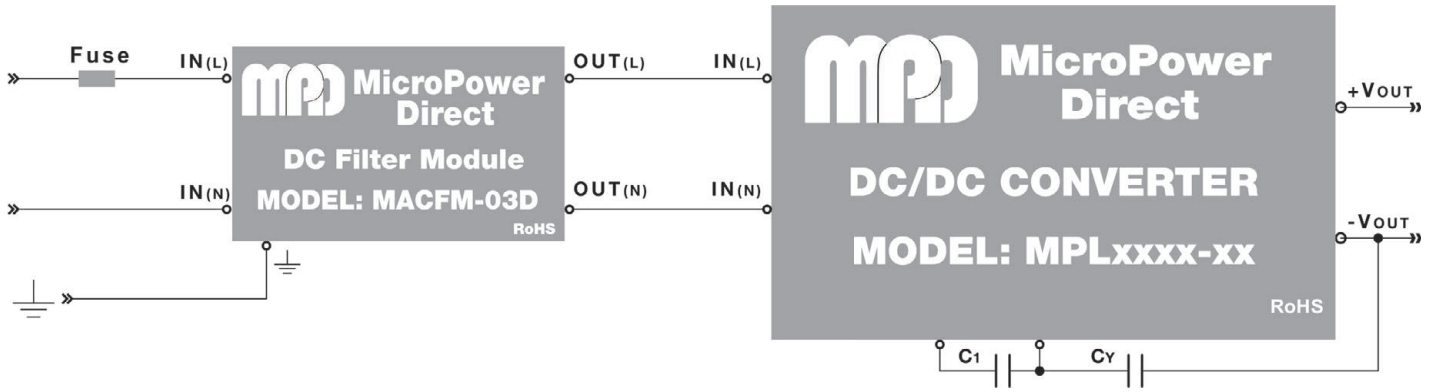


### Schematic



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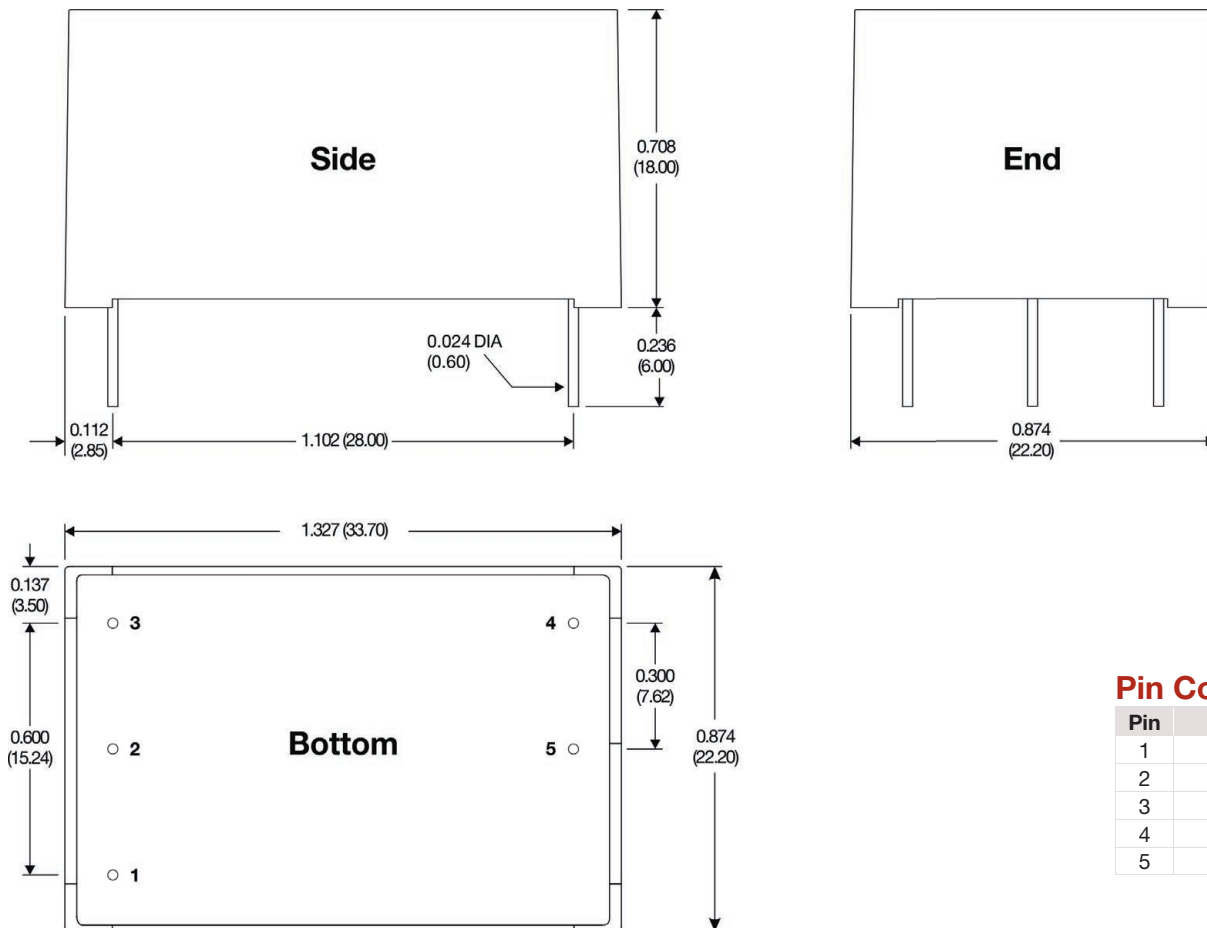
### Typical Connection



**MACFM-03D** filter modules operate with **MPD's** ultra-miniature 1W, 3W and 5W **MPL** AC/DC power supplies. The **MPL** units provide 1W, 3W and 5W of power from miniature SIP packages.

With these modules, the AC power supply will meet the surge requirements of EN 61000-4-5 and the EMS requirements of EN 55022. Capacitors C1 and Cy are required for proper operation of **MPL** units. Refer to the product datasheet for recommended values. Contact the factory for information on our full range of filter products.

### Mechanical Dimensions



### Pin Connections

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

#### Notes:

- All dimensions are typical in inches (mm)
- Tolerance x.xx = ±0.02 (±0.50)



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