

**SERIES:** EMC-03 | **DESCRIPTION:** AC POWER LINE FILTER**FEATURES**

- reduces emissions to help comply with CISPR22 / EN 55022 Class B
- protects against surge events and Electrical Fast Transients
- wide input voltage range (85 ~ 305 Vac)
- 0.3 A rated current
- -40 to +85°C temperature range

**SPECIFICATIONS**

parameter	conditions/description	min	typ	max	units
input voltage		85		305	Vac
input current				0.3	A
RoHS	yes				
operating temperature		-40		85	°C
storage temperature		-40		105	°C
case temperature rise	at 220 Vac, 0.3 A			30	°C
leakage current (line to ground)	2000 Vac, tested for 1 minute		2		mA
EFT	IEC/EN61000-4-4, +/-4 kV				
surge	IEC/EN61000-4-5, +/-1 kV (2 ohms) / +/-2 kV (12 ohms)				

PART NUMBER KEY

EMC-03

Base Number

MECHANICAL

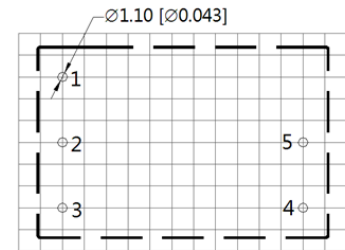
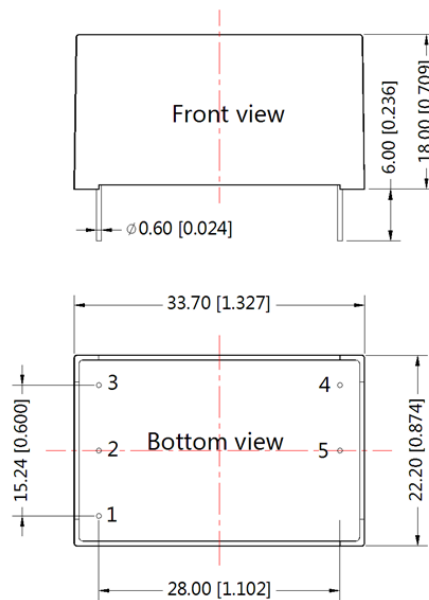
parameter	conditions/description	min	typ	max	units
dimensions	33.70 x 22.20 x 18.00 [1.327 x 0.874 x 0.709 inch]				mm
case material	black flame-retardant heat-proof epoxy resin (UL94V-0)				
weight			20		g

MECHANICAL DRAWING

units: mm [inch]

tolerance: $\pm 0.50[\pm 0.020]$ pin diameter tolerance: $\pm 0.10[\pm 0.004]$

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

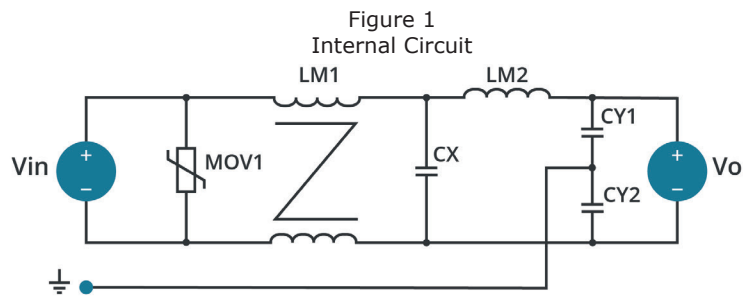


Note : Grid 2.54*2.54mm

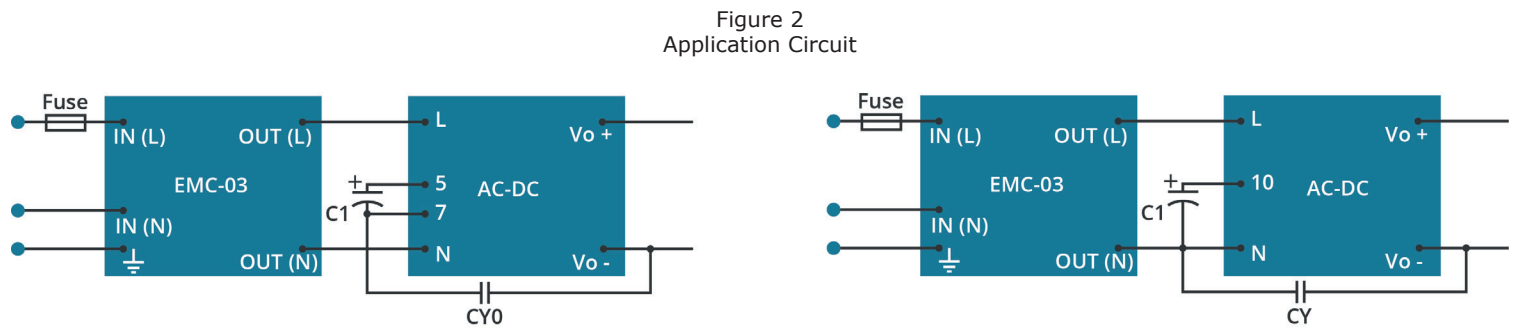
Recommended PCB Layout
Top View

Supporting Product Table			
Model	EMI	Surge	EFT
PBO-1	CISPR22/EN55022 CLASS B	IEC/EN61000-4-5 $\pm 1\text{KV}/\pm 2\text{KV}$, perf. Criteria B	IEC/EN61000-4-4 $\pm 4\text{KV}$, perf. Criteria B
PBO-3	CISPR22/EN55022 CLASS B	IEC/EN61000-4-5 $\pm 1\text{KV}/\pm 2\text{KV}$, perf. Criteria B	IEC/EN61000-4-4 $\pm 4\text{KV}$, perf. Criteria B
PBO-5	CISPR22/EN55022 CLASS B	IEC/EN61000-4-5 $\pm 1\text{KV}/\pm 2\text{KV}$, perf. Criteria B	IEC/EN61000-4-4 $\pm 4\text{KV}$, perf. Criteria B

DESIGN REFERENCE



APPLICATION CIRCUIT



REVISION HISTORY

rev.	description	date
1.0	initial release	11/11/2019
1.01	circuit figures updated	01/12/2022

The revision history provided is for informational purposes only and is believed to be accurate.

**CUI INC®**

Headquarters
20050 SW 112th Ave.
Tualatin, OR 97062
800.275.4899

Fax 503.612.2383
cui.com
techsupport@cui.com

CUI offers a two (2) year limited warranty. Complete warranty information is listed on our website.

CUI reserves the right to make changes to the product at any time without notice. Information provided by CUI is believed to be accurate and reliable. However, no responsibility is assumed by CUI for its use, nor for any infringements of patents or other rights of third parties which may result from its use.

CUI products are not authorized or warranted for use as critical components in equipment that requires an extremely high level of reliability. A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.