

EMC Filter



RoHS

FEATURES

- Compact size
- Design to suppress the AC power surge to achieve primary protection
- Ensure the power supply module to meet the requirement of CISPR22/ EN55022 Class B
- Cost-effective
- Low Temperature rise

This model applies to analog circuit which is noise-sensitive. Put FC-L01DV1 on to the input of AC/DC module can ensure the module meet Surge level of IEC/EN61000-4-5 ±1KV (2Ω internal resistance)/±2KV (12Ω internal resistance) and EMI requirement of CISPR22 /EN 55022 Class B.

EMC filter used with the MORNSUN AC/DC module, AC/DC module's max. Input voltage must less than EMC filter's max. Voltage, AC/DC module's max. Input current must less than EMC filter's max current.

Selection Guide

Model	Input Voltage Range (VAC)	Current (A)(max)
FC-L01DV1	85~305	0.3

General Specifications

Item	Test Conditions	Min.	Typ.	Max.	Unit
Operating Temperature		-40	--	85	°C
Storage Temperature		-40	--	105	
Casing Temperature Rise	220VAC @0.3A	--	--	5	
Isolation Voltage	IN(L)~ $\perp$ , IN(N)~ $\perp$ tested for 1 minute and leakage current: 1 mA	2000	--	--	VAC

General Specifications

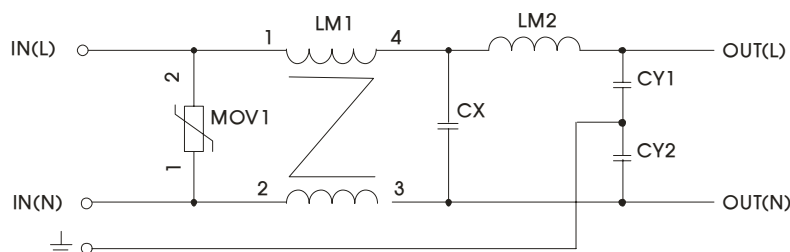
Casing Material	Black flame-retardant heat-proof epoxy resin (UL94-V0)
Package Dimensions	33.70X22.20X18.00 mm
Weight	20g (Typ)

Devise Standard

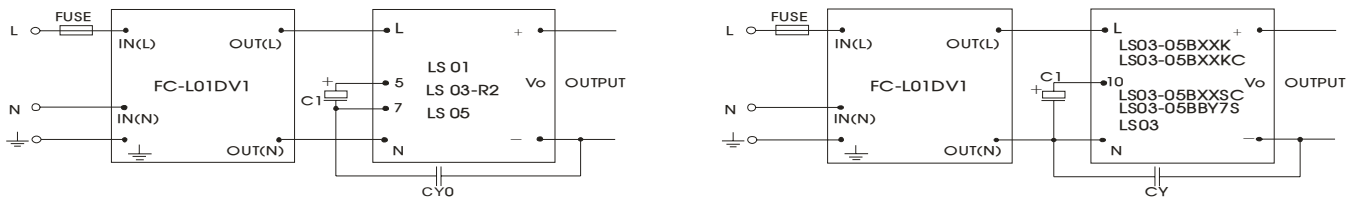
Put FC-L01DV1 on to the input of AC/DC module can ensure the module meet Surge level of IEC/EN61000-4-5 ±1KV (2Ω internal resistance)/±2KV (12Ω internal resistance) and EMI requirement of CISPR22 /EN 55022 Class B.

Design Reference

1. Inside schematic



2. Typical application



FUSE: Due to the difference of the power module input current, the fuse of the recommended values, please refer to the Technical Manual for the power module.

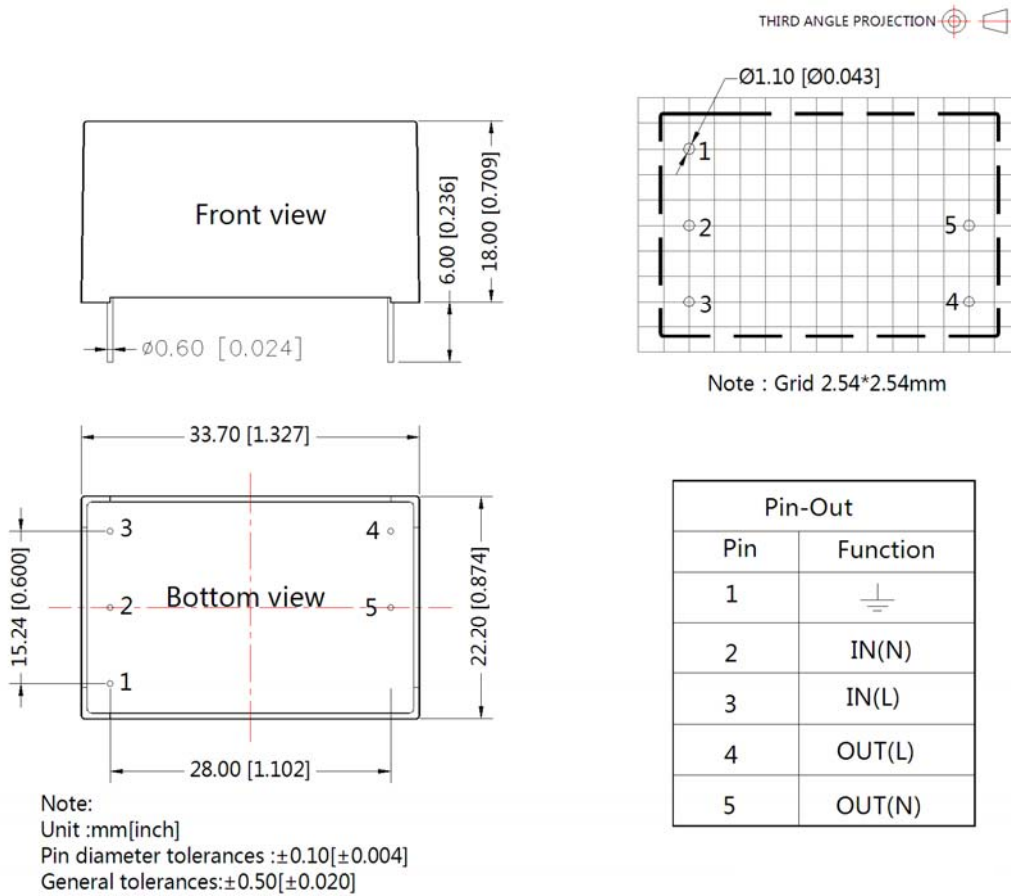
C1, CY0, CY, LDM: parameter selection please refer to power supply technical manual.

3. Supporting the product model

Model	EMI(Without External Circuit)	EMI(With FC-L01DV1)	Surge (Without External Circuit)	Surge (With FC-L01DV1)	EFT (Without External Circuit)	EFT (With FC-L01DV1)
LS01 Series	--	CISPR22/EN55022 CLASS B	--	IEC/EN61000-4-5 ±1KV/±2KV perf. Criteria B	--	IEC/EN61000-4-4 ±4KV perf. Criteria B
LS03 Series	--	CISPR22/EN55022 CLASS B	--	IEC/EN61000-4-5 ±1KV/±2KV perf. Criteria B	--	IEC/EN61000-4-4 ±4KV perf. Criteria B
LS03-R2 Series	--	CISPR22/EN55022 CLASS B	--	IEC/EN61000-4-5 ±1KV/±2KV perf. Criteria B	--	IEC/EN61000-4-4 ±4KV perf. Criteria B
LS05 Series	--	CISPR22/EN55022 CLASS B	--	IEC/EN61000-4-5 ±1KV/±2KV perf. Criteria B	--	IEC/EN61000-4-4 ±4KV perf. Criteria B
LS03-05BXXK	--	CISPR22/EN55022 CLASS B	--	IEC/EN61000-4-5 ±1KV/±2KV perf. Criteria B	--	IEC/EN61000-4-4 ±4KV perf. Criteria B

4. For more information Please find the application notes on [www.mornsun-power.com](http://www.mornsun-power.com)

FC-L01DV1 Dimensions and Recommended Layout



Note:

1. Packing Information please refer to 'Product Packing Information'. Packing bag number: 58220014;
2. Unless otherwise specified, data in this datasheet should be tested under the conditions of  $T_a=25^{\circ}\text{C}$ , humidity<75%;
3. All index testing methods in this datasheet are based on our Company's corporate standards;
4. The performance indexes of the product models listed in this manual are as above, but some indexes of non-standard model products will exceed the above-mentioned requirements, and please directly contact our technicians for specific information;
5. We can provide product customization service;
6. Specifications of this product are subject to changes without prior notice.

MORNSUN Guangzhou Science & Technology Co., Ltd.

Address: No. 5, Kehui St. 1, Kehui Development Center, Science Ave., Guangzhou Science City, Luogang District, Guangzhou, P. R. China  
Tel: 86-20-38601850-8801 Fax: 86-20-38601272 E-mail: [info@mornsun.cn](mailto:info@mornsun.cn)