

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  $\pm 1KV$  ( $2\Omega$  internal resistance)/ $\pm 2KV$  ( $12\Omega$  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 not more 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	--	--	30	
Leakage Current (line to ground)	2000VAC, Electric Strength Test for 1min.	--	2	--	mA

General Specifications

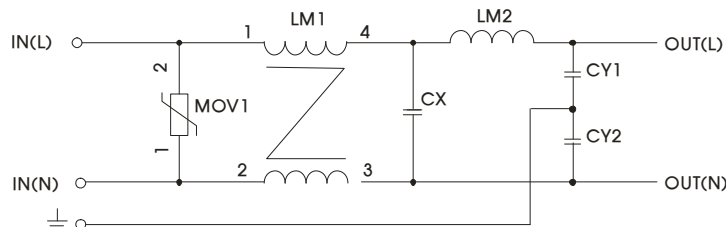
Casing Material	Black plastic, flame-retardant and heat-resistant (UL94V-0)
Package Dimensions	33.70 X 22.20 X 18.00 mm
Weight	20g (Typ)

Devise Standard

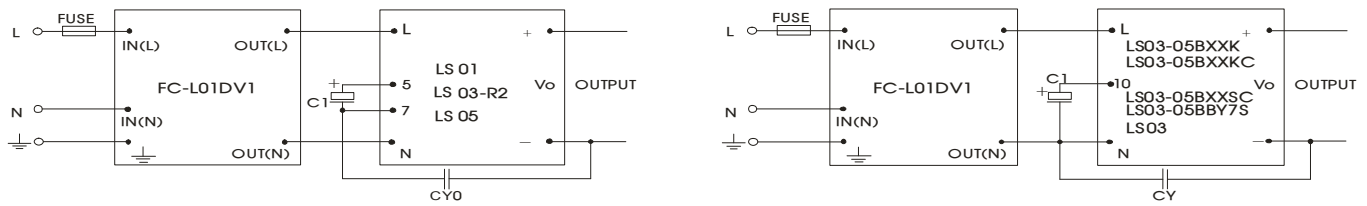
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Design Reference

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.

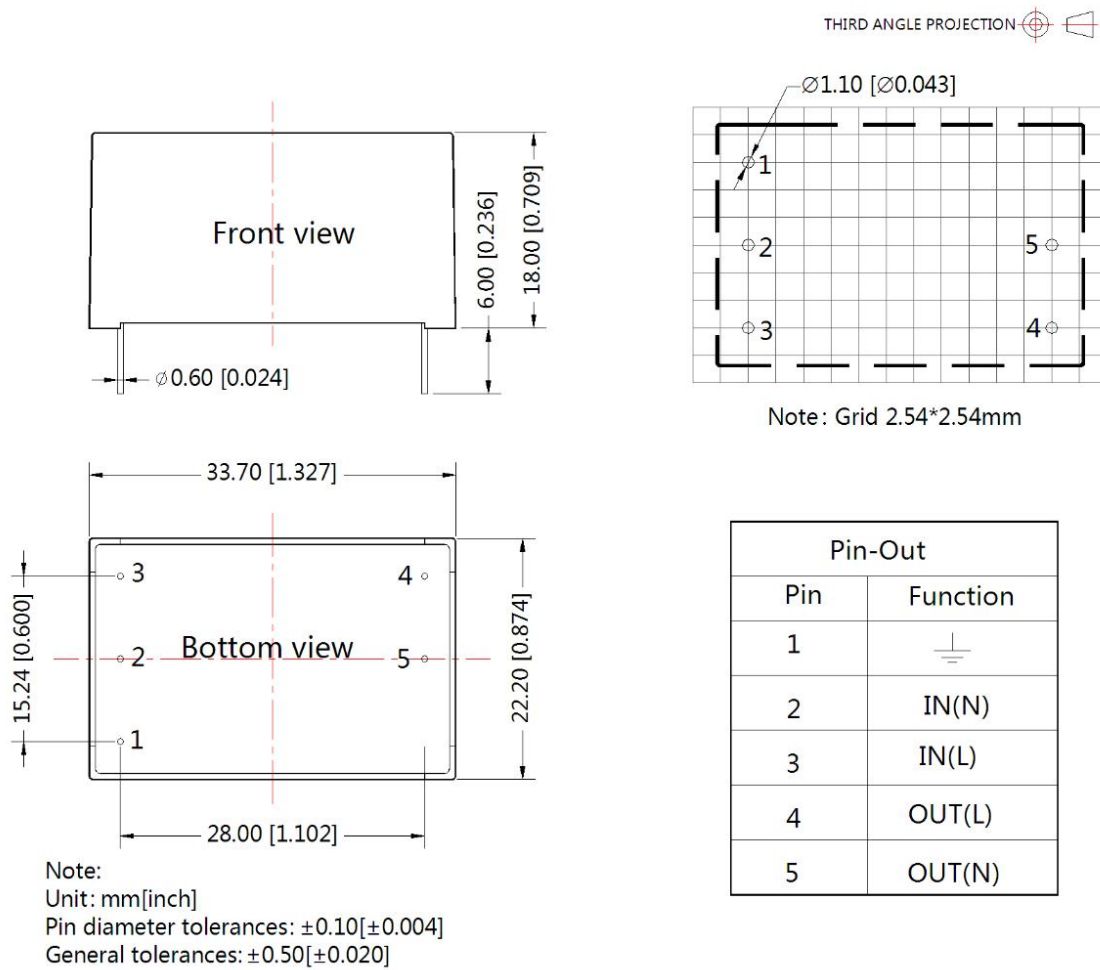
C1, CY0, CY, LDM: parameter selection please refer to power supply technical manual.

## 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)
LS01-16D0506-01-ZD、 LS01-K3B05SS-C、 LS01-K3B05SS-OEM、 LS01-K3B05SS	--	CISPR22/EN5 5022 CLASS B	--	IEC/EN61000-4-5 ±1KV/±2KV perf. Criteria B	--	IEC/EN61000-4- 4 ±4KV perf. Criteria B
LS03-15BxxSR3S Series、 LS03-05BxxSS Series、 LS03-13B Series、 LS03-K3B Series、 LS03-16B12SS-XL、 LS03-16BY4SS-RU、 LS03-23B12R3	--	CISPR22/EN5 5022 CLASS B	--	IEC/EN61000-4-5 ±1KV/±2KV perf. Criteria B	--	IEC/EN61000-4- 4 ±4KV perf. Criteria B
LS03-15A12SR2S(-ZW)、 LS03-15B05SR2S-ZS、 LS03-15B09SR2S-MAN、 LS03-15B15SR2S-CH	--	CISPR22/EN5 5022 CLASS B	--	IEC/EN61000-4-5 ±1KV/±2KV perf. Criteria B	--	IEC/EN61000-4- 4 ±4KV perf. Criteria B
LS05-15BxxSS-(C/OEM/Q -OEM/ZHGD/HW/IT) Series、 LS05-13H Series、 LS05-K3B Series、 LS05-13D Series、 LS05-R3 Series、 LS05-13B12SS-BSB、 LS05-13BX4SS	--	CISPR22/EN5 5022 CLASS B	--	IEC/EN61000-4-5 ±1KV/±2KV perf. Criteria B	--	IEC/EN61000-4- 4 ±4KV perf. Criteria B
LS03-05B03(09/12/15)SS、 LS03-05B12SS-F、 LS03-05B05S-FPT	--	CISPR22/EN5 5022 CLASS B	--	IEC/EN61000-4-5 ±1KV/±2KV perf. Criteria B	--	IEC/EN61000-4- 4 ±4KV perf. Criteria B
LS-R3 Series	--	CISPR22/EN5 5022 CLASS B	--	IEC/EN61000-4-5 ±1KV/±2KV perf. Criteria B	--	IEC/EN61000-4- 4 ±4KV perf. Criteria B

4. For additional information please refer to application notes on [www.mornsun-power.com](http://www.mornsun-power.com)

FC-L01DV1 Dimensions and Recommended Layout



Note:

- For additional information on Product Packaging please refer to [www.mornsun-power.com](http://www.mornsun-power.com). Packaging bag number: 58200055;
- Unless otherwise specified, parameters in this datasheet were measured under the conditions of  $T_a=25^\circ\text{C}$ , humidity<75% with nominal input voltage and rated output load;
- All index testing methods in this datasheet are based on our company corporate standards;
- We can provide product customization service, please contact our technicians directly for specific information;
- Products are related to laws and regulations: see "Features" and "EMC";
- Our products shall be classified according to ISO14001 and related environmental laws and regulations, and shall be handled by qualified units.

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