

Typical Features

- ◆ Wide input voltage range: 85-305VAC
- ◆ When used with the recommended power modules, this configuration ensures EMI compliance with CISPR22 / EN55032 Class B limits.
- ◆ Operating temperature: -40°C~+85°C
- ◆ Compliant with CE and RoHS certification standards
- ◆ Ultra-compact open-frame design with industrial-grade reliability.
- ◆ PCB Mounting



Application Areas

The LC-05W1D Series is a filter module provided by Aipu for customers, suitable for applications sensitive to EMI noise. It also offers excellent surge suppression. The maximum input voltage of the AC/DC module power supply should not exceed the filter's maximum operating voltage, and the maximum input current should be less than the filter's rated operating current.

Selection Guide

Certificate	Part No.	Input Voltage Range		Output Specifications		
		Nominal Value (VAC)	Range Value (VAC)	Power P (W)	Voltage Vo(V)	MAX Rated Current Io (mA)
-	LC-05W1D	-	85 - 305	-	-	100 (≤5W)

Input Specifications

Test Item	Test Conditions	Minimum	Typical	Max	Unit
Input Voltage Range	AC Input	85	-	305	VAC
	DC Input	120	-	430	VDC
Input frequency	-	47	50	63	Hz
Standby Power Consumption	115 VAC	-	-	-	W
	230 VAC				

General Specifications

Test Item	Test Conditions	Minimum	Typical	Max	Unit
Operating Temperature	-	-40	-	+85	°C
Storage temperature	-	-55	-	+125	
Soldering Temperature	Wave soldering	260±4°C, duration 5–10 s			
	Manual soldering	360±8°C, duration 4–7 s			
Relative Humidity	-	10	-	90	%RH
Surface temperature rise during operation	220VAC@0.05A	-	-	7	°C
	220VAC@0.10A	-	-	24	

Weight/Dimensions	Package Code	Weight (typ.)	Dimensions L x W x H	
	-	5 g	14.2 x 17.0 x 12.0 mm	0.559 x 0.669 x 0.472 in

Design Reference

1. Internal Schematic Diagram

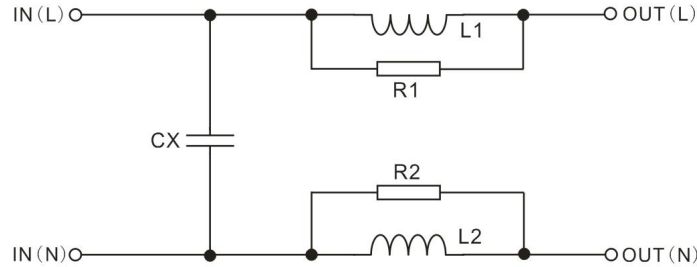


Figure 1

2. Typical Application Circuit

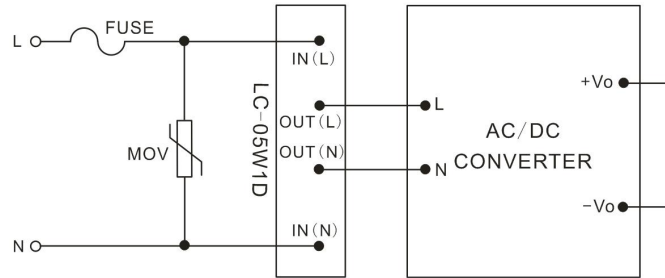
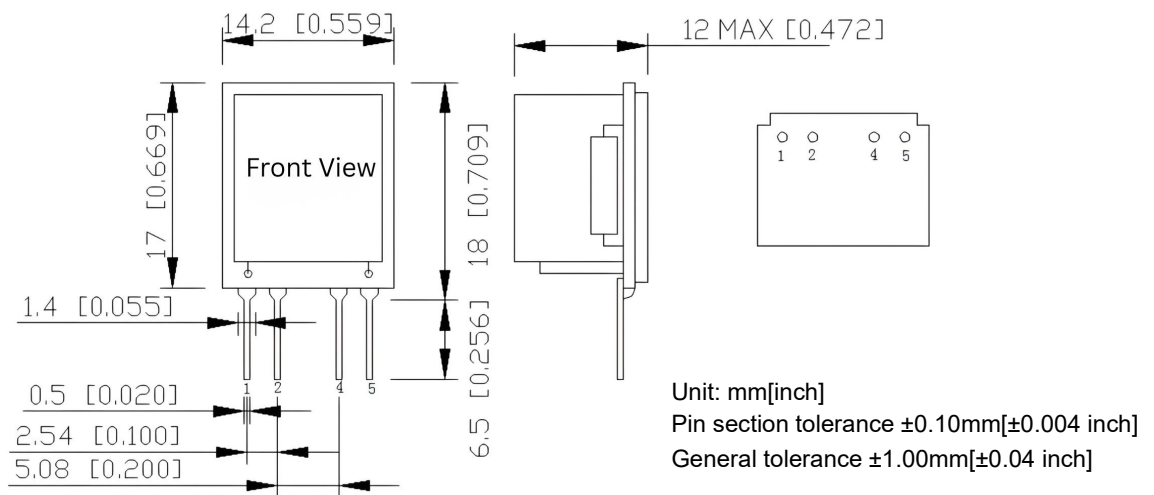


Figure 2

Mechanical Dimensions



Pin Definitions

Pin Description	1	2	4	5
Function	IN(L)	OUT(L)	OUT(N)	IN(N)
	AC line input terminal (Source)	Filtered AC line output (Load)	Filtered AC neutral output (Load)	AC neutral input terminal (Source)

Note:

1. The product must be used within the specified parameters; otherwise, it may be permanently damaged;
2. If the product operates below the minimum required load, it cannot be guaranteed that all Performance Specifications in this manual will be met;
3. If the product operates outside its rated load range, performance compliance with all Performance Specifications in this manual cannot be guaranteed;
4. Unless otherwise specified, all data above was measured at $T_a = 25^{\circ}\text{C}$, humidity < 75%, with the input at Nominal Input Voltage and the output at rated load (resistive load);
5. All test methods for the above specifications are based on our company's standards;
6. The above Performance Specifications apply to the product models listed in this manual. Certain Performance Specifications for non-standard models may exceed the requirements listed above; please contact Aipu's technical staff directly for specific details;
7. Customized products are available upon request.

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