

Typical Features

- ◆ Wide input voltage range 85-305VAC
- ◆ Meet EMI/CE Class B with the power supply
- ◆ Operating temperature from -40℃ to +80℃
- ◆ Compact size, adapted with PCB DIP, chassis & DIN rail mounting
- ◆ Enclosed plastic case, flame class UL94-V0



Application Field

LC-AC02P2 ---- A compact size modular filter with global adapted input voltage range, it is suitable for the analog circuit which is critical on the High frequency Noise. The AC-DC power supply with the filter connected at the input can meet IEC/EN61000-4-5 Surge level $\pm 4KV$ (2Ω internal resistance)/ $\pm 6KV$ (12Ω internal resistance), and meet EMI CISPR32/EN55032 Class B. The maximum input voltage of the AC-DC power supply should be less than the maximum operating voltage of this filter, the maximum input current of the AC-DC power supply should be less than the filter rated operating current.

Typical Product List

Certificate	Part No.	Input voltage Range (VAC)	Rated Output Current (mA) MAX
-	LC-AC02P2	85 - 305	1500

Note: The suffix -T is for the chassis package, -TS is for the package of DIN Rail.

Input Specifications

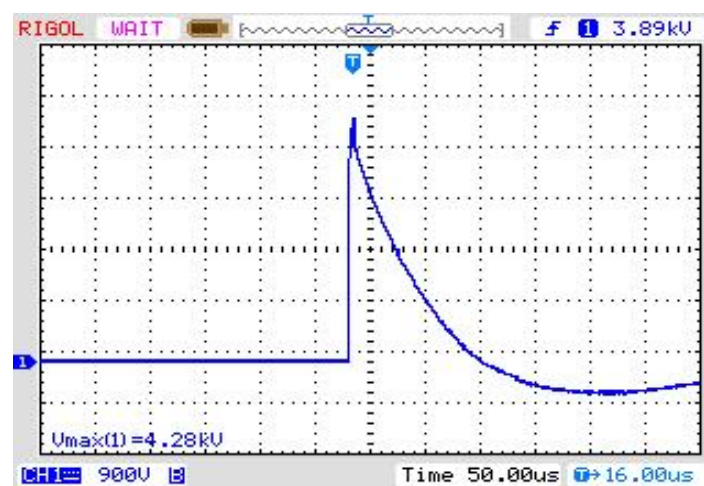
Item	Operating Condition	Min.	Typ.	Max.	Unit
Input Voltage Range	AC Input	85	220	305	VAC
	DC Input	120	300	430	VDC
Input Frequency Range	--	47	50	63	Hz
Input no-load Current	220VAC	--	15	--	mA

General Specifications

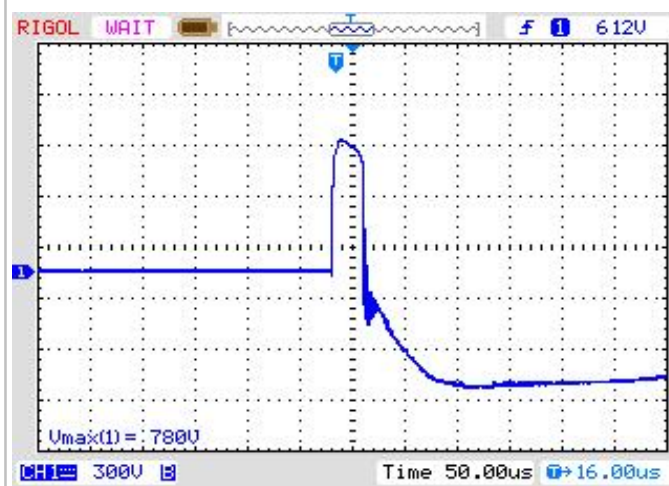
Item	Operating Condition	Min.	Typ.	Max.	Unit
Operating Temperature	--	-40	--	+80	℃
Storage Temperature	--	-55	--	+105	
Case Temperature Raise	220VAC@0.5A	--	--	10°	
	220VAC@1.0A	--	--	25°	
	220VAC@1.5A	--	--	35°	
Soldering Temperature	Wave soldering	260±4℃, time 5-10S			
	Manual soldering	360 ±8℃, time 4-7S			

Relative Humidity	--	10	--	90	%RH
Insulation Voltage	I/P to GND, Test 1 min, leakage current ≤5mA	--	1500	--	VAC
Vibration	--	10-55Hz, 10G, 30 Min, along X, Y, Z			
Safety Class	--	Class II			
Case Flame Class	--	UL94V-0			
Unit Weight	--	13g (Typ.)			

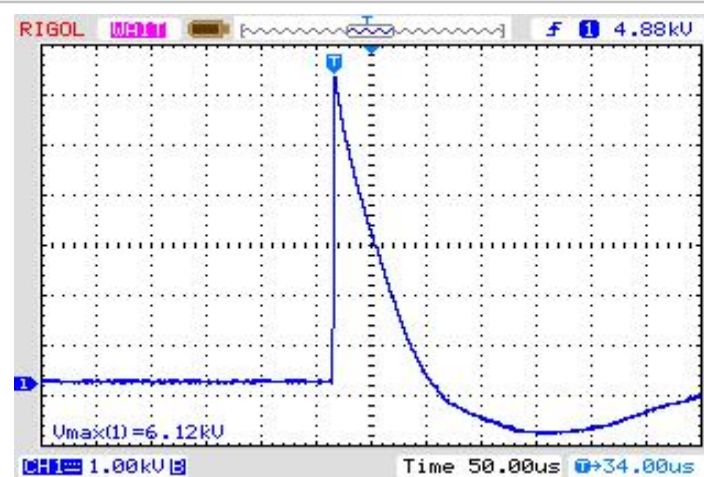
EMS Performance (SURGES)



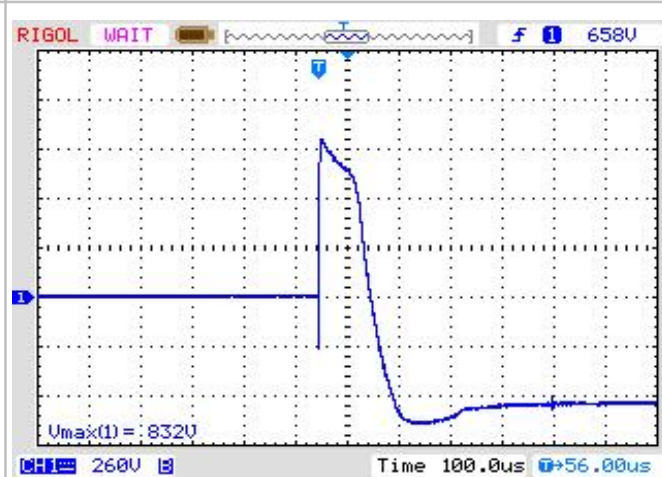
Input voltage waveform
(Differential mode 4.28KV)



Output voltage waveform
(Differential mode 0.78KV)



Input voltage waveform
(Common mode 6.12KV)

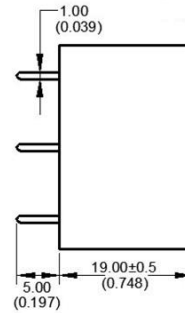
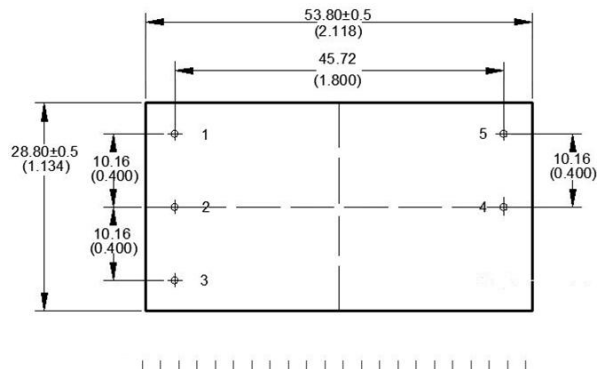


Output voltage waveform
(Common mode 0.83KV)

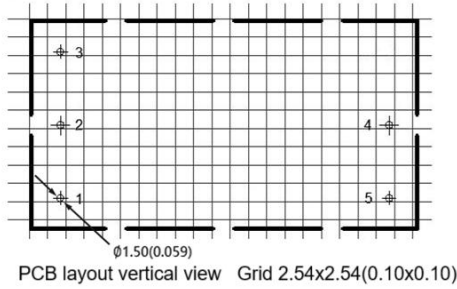
Note 1: Above surges were measured with LC-AC02P2 open circuit.

Note 2: Test standard IEC/EN-61000-4-5.

LC-AC02P2 Mechanical Dimensions



Pin No.	Function
1	AC(L)
2	AC(N)
3	PE(GND)
4	OUT(N)
5	OUT(L)



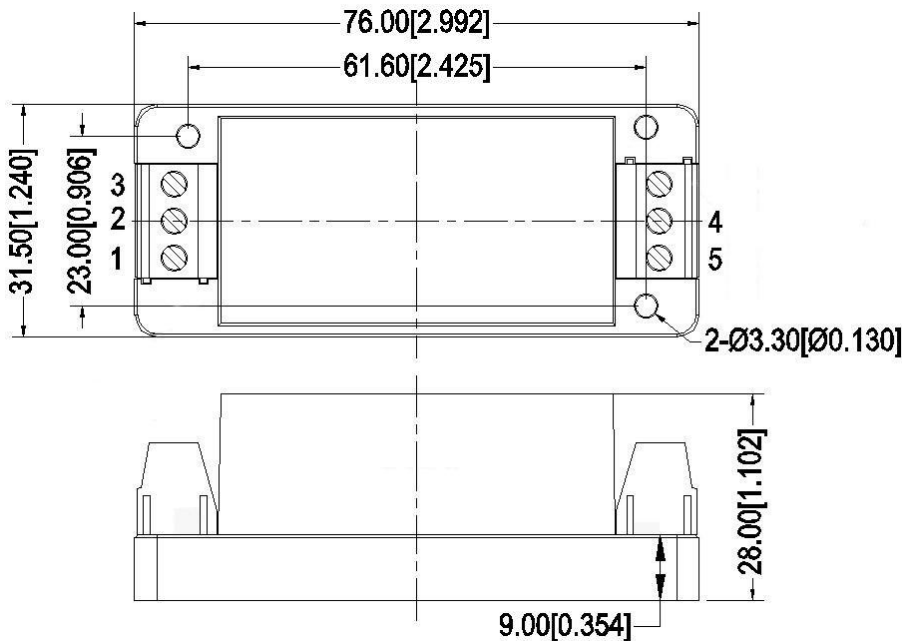
Note:

Unit: mm(inch)

Pin diameter tolerance: ± 0.10 (± 0.004)

General tolerance: ± 0.50 (± 0.020)

LC-AC02P2-T Mechanical Dimensions



Terminal No.	Function
1	AC(L)
2	AC(N)
3	PE(GND)
4	OUT(N)
5	OUT(L)

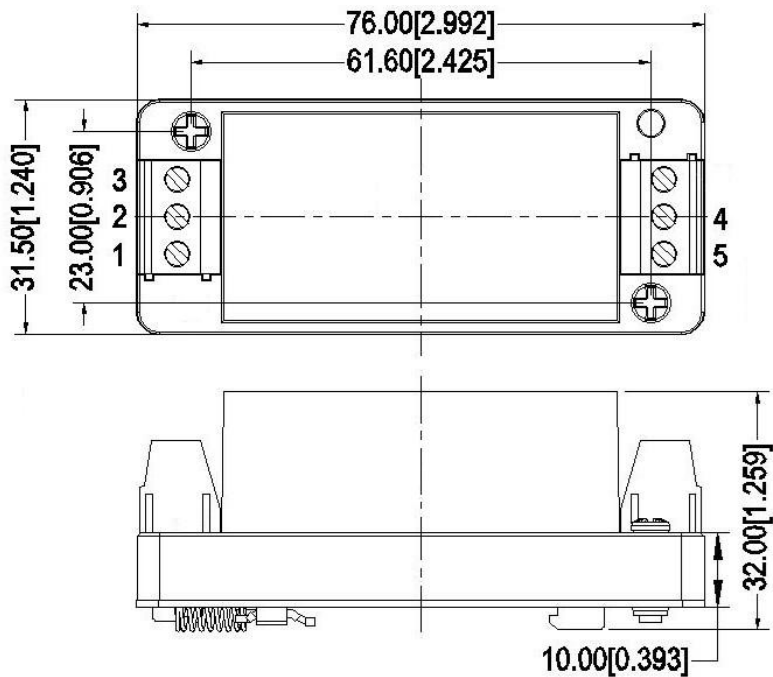
Unit: mm[inch]

Lead wires size: 24-12AWG

Screwing torque: 0.4N.m Max

General tolerance: ± 1.00 [± 0.039]

LC-AC02P2-TS Mechanical Dimensions

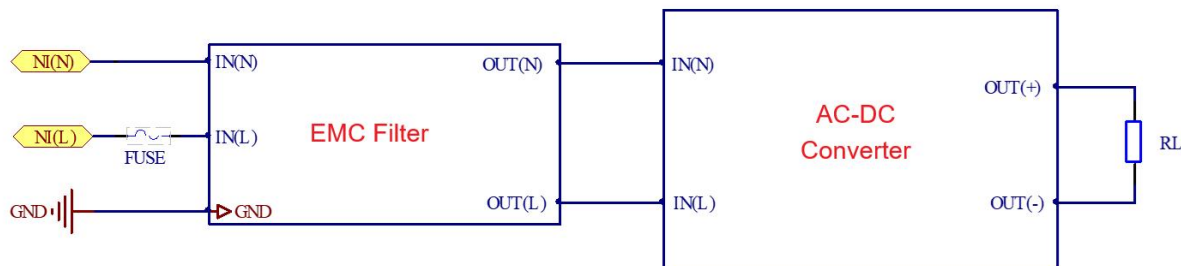


Terminal No.	Function
1	AC(L)
2	AC(N)
3	PE(GND)
4	OUT(N)
5	OUT(L)

Unit: mm[inch]
Lead wires size: 24-12AWG
Screwing torque: 0.4N.m Max
General tolerance: $\pm 1.00[\pm 0.039]$

Part No.	Dimensions L x W x H	
LC-AC02P2	53.8X28.8X19.0 mm	2.118X1.134X0.748 inch
LC-AC02P2-T	76.0X31.5X28.0 mm	2.992X1.240X1.102 inch
LC-AC02P2-TS	76.0X31.5X32.0 mm	2.992X1.240X1.259 inch

Application Circuit Diagram



Note: The FUSE parameters should be defined according to the recommendation of the AC-DC converter specification.

Application Notice

1. The products should be used according to the specifications in this datasheet, otherwise it could be permanently damaged.
2. The product performance in this datasheet cannot be guaranteed if it works at over-load condition.
3. Unless otherwise specified, all values or indicators in this datasheet are tested at $T_a=25^{\circ}\text{C}$, humidity<75%RH, nominal input voltage and rated load (pure resistance load).
4. All values or indicators in this datasheet had been tested based on Aipupower test specifications.
5. The specifications are specially for the parts listed in this datasheet, any other non-standard model performances could be out of the specifications. Please contact our technician for specific requirements.
6. Aipupower can provide customization service.

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