## Datasheet | EC01 EP-42 Series



### **General Purpose AC EMI Filter**



\*Image shown is for illustrative purpose only

#### **Features and benefits**

- All filters provide high attenuation performance.
- High reliable
- All filters compliance to EN60939-3:2015 & EN60939-2:2005 standards
- Easy and fast chassis mountable filter in deep drawn metal can with compact size.
- CRCA metal can with nickel plating provides good aesthetic and corrosion protection.
- Filters available in medical version without capacitor to earth.
- General purpose filters with low leakage current for safety critical application.
- With surge suppressor filters also available.
- Various terminal options are available.

### **Application**

- Consumer product
- Food processing machines
- Medical equipment
- Printing machinery
- | Electrical automation equipment

### **Approvals / Conformance**







### **Technical Specifications**

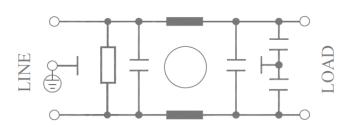
Operating voltage	120/250 VAC
Current rating	1A-20A
Frequency	50/60Hz
Voltage drop	1 Volt max.
High potential test voltage	P -> E 1500VAC
	P -> N 1414VDC (applicable for excluding surge suppressor filter)
Insulation resistance	$\geq$ 300 M $\Omega$ @ 500VDC (PN $\rightarrow$ E)
Operating temperature	40°c /-25°c +85°c

### **Attenuation type**

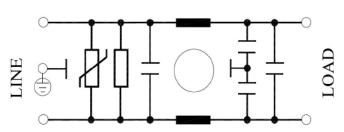
Single Stage

Standard

## Electrical schematic for single stage filter: General purpose –



### General purpose with surge suppressor -



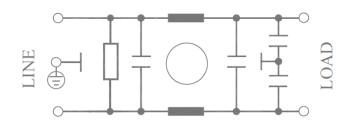
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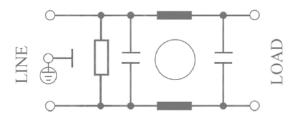
# ELCOM

### **Electrical schematic for filter:**

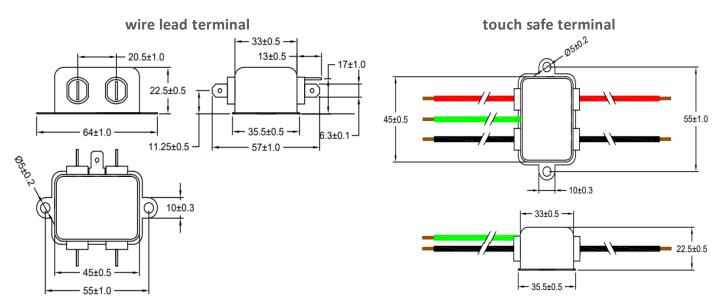
Medical equipment application -

Medical equipment application with surge suppressor -





### **Mechanical Details**



All dimensions in mm.

### **Product Selection Table:**

Sr. No	Elcom part codes (ordering code)	Rated Current rating (A) @40°c	Leakage current (mA) @250VAC	Terminals ( <u>×</u> )		Max. Peak	Energy surge		
				Fast- on	Wire	current (8/20 μ sec 1 time) (KA)	rating (10/1000 μ sec) (Joules)	Approx. Weight (gm)	Attenuation
1	EF-1B001 <u>X</u> 01E- C01	1	< 0.5	В	G			60	Standard
2	EF-1B001 <u>X</u> 02E- C01	1	< 0.5	В	G	6.5	175	60	Standard
3	EF-1B001 <u>X</u> 03E- C01	1	< 0.003	В	G			60	Standard
4	EF-1B001 <u>X</u> 04E- C01	1	< 0.003	В	G	6.5	175	60	Standard

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5	EF-1B003 <u>X</u> 01E- C01	3	< 0.5	В	G			60	Standard
6	EF-1B003 <u>X</u> 02E- C01	3	< 0.5	В	G	6.5	175	60	Standard
7	EF-1B003 <u>X</u> 03E- C01	3	< 0.003	В	G			60	Standard
8	EF-1B003 <u>X</u> 04E- C01	3	< 0.003	В	G	6.5	175	60	Standard
9	EF-1B006 <u>X</u> 01E- C01	6	< 0.5	В	G			60	Standard
10	EF-1B006 <u>X</u> 02E- C01	6	< 0.5	В	G	6.5	175	60	Standard
11	EF-1B006 <u>X</u> 03E- C01	6	< 0.003	В	G			60	Standard
12	EF-1B006 <u>X</u> 04E- C01	6	< 0.003	В	G	6.5	175	60	Standard
13	EF-1B010 <u>X</u> 01E- C01	10	< 0.5	В	G	-		60	Standard
14	EF-1B010 <u>X</u> 02E- C01	10	< 0.5	В	G	6.5	175	60	Standard
15	EF-1B010 <u>X</u> 03E- C01	10	< 0.003	В	G			60	Standard
16	EF-1B010 <u>X</u> 04E- C01	10	< 0.003	В	G	6.5	175	60	Standard

- To compile complete part number, replace the 'X' with required I/O connection terminal. (e.g. EF-1B001B03E-C01)
- Maximum leakage under usual AC operating conditions (acc. IEC 60939-3). Note: if the neutral line is interrupted, worst case leakage could reach twice this level.
- Customize products provided on request.

### **Connection Method**

Current Rating (A)	Fast -on	Wire	Earthing	
1, 3 & 6	C 2 V 0 0 mm	18AWG	Fact on Avira loads	
10	6.3 X 0.8mm	14AWG	Fast-on/wire leads	

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### Filter attenuation graph

C = Common mode (asymmetrical) ———

D = Differential mode (symmetrical) ------

### For general purpose

