Datasheet | EB15

General Purpose AC EMI Filter

*Image shown is for illustrative purpose only

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	≥ 300 MΩ @ 500VDC (PN→E)
Operating temperature	40°c /-25°c +85°c

Features and benefits

- Filters available in single stage and double stage.
- All filters provide high attenuation performance.
- All filters compliance to EN60939-3:2015 & EN60939-2:2005 standards.
- Filter available in snap fit provision.
- CRCA metal can with nickel plating provides good aesthetic and corrosion protection
- High reliable
- Input connection through IEC 60320 C20 plug
- Filters available in medical version without capacitor to earth.
- With surge suppressor filters also available.

Application

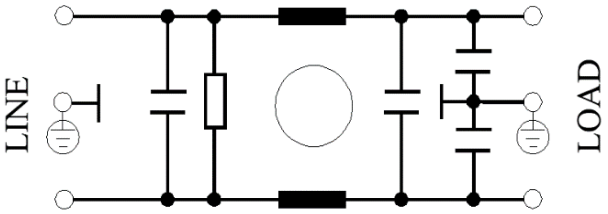
- Consumer product
- Medical equipment
- Industrial application
- Electrical automation equipment
- Solar inverter

Attenuation type

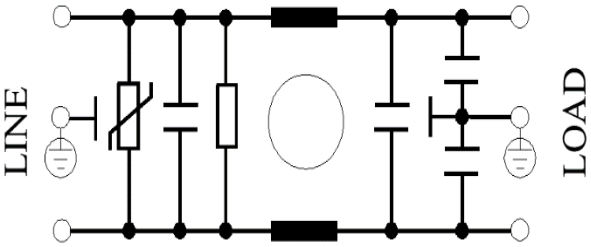
Single Stage	Standard
Double Stage	High

Electrical schematic for Single Stage filter:

General purpose –

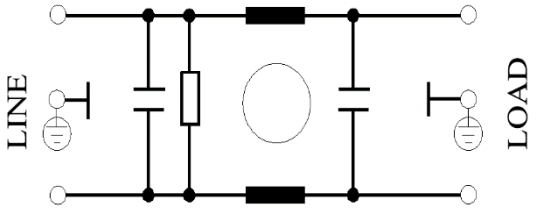


General purpose with Surge Suppressor –

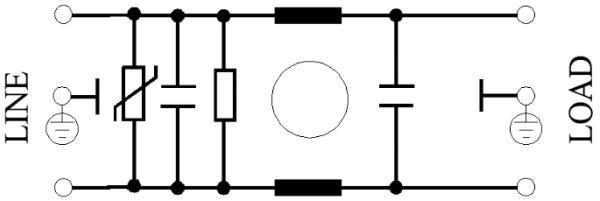


Datasheet | EB15

Medical equipment application -

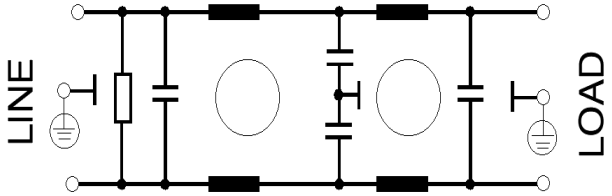


Medical equipment application with Surge Suppressor

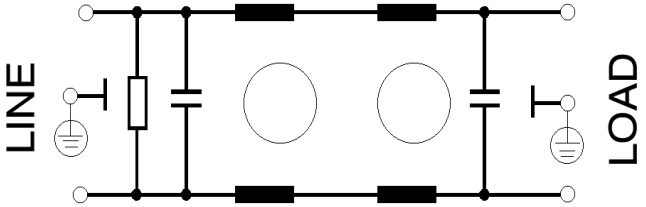


Electrical schematic for Double Stage Filter

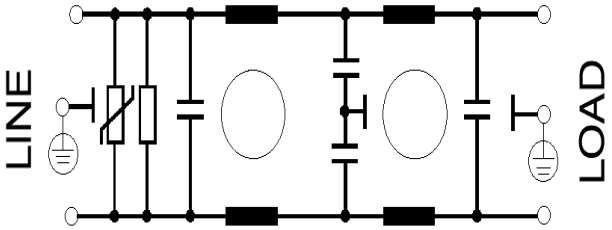
General purpose –



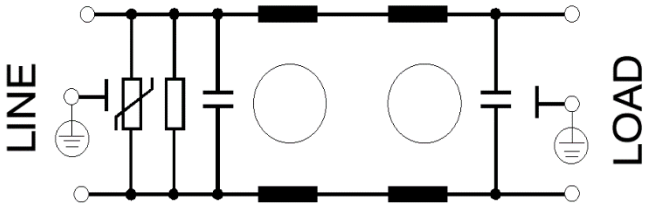
Medical equipment application –



General purpose with Surge Suppressor –

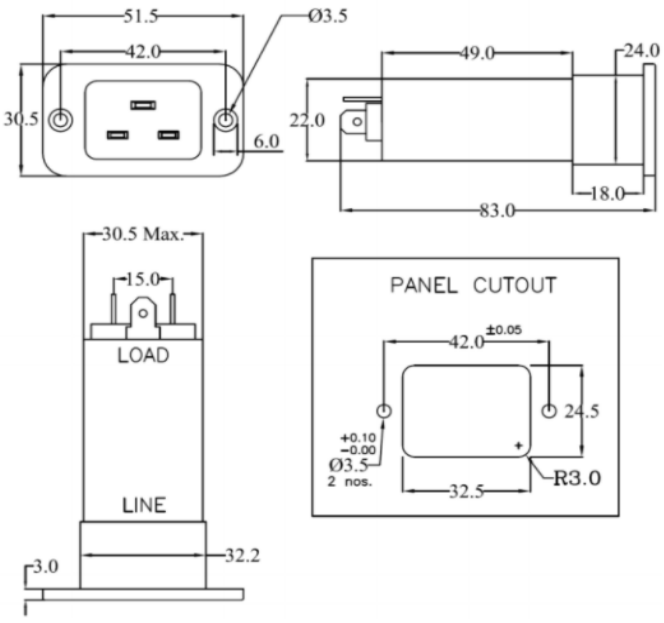


Medical equipment application with Surge Suppressor-

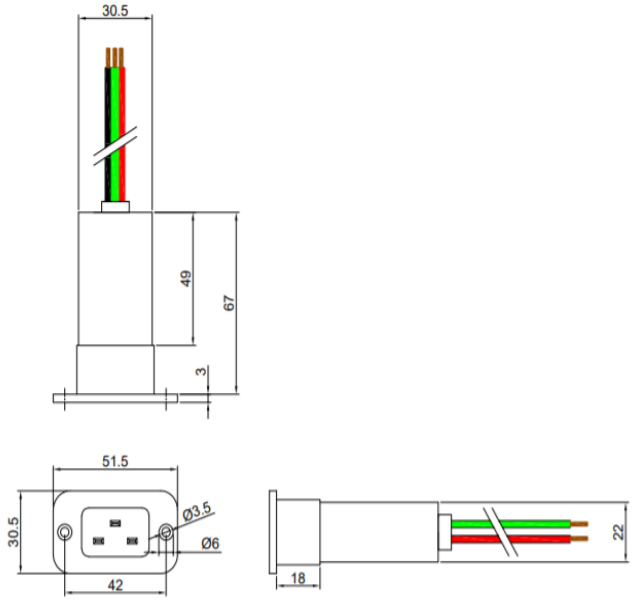


Mechanical Details

fast-on terminal



wire lead terminal



Datasheet | EB15

Product Selection Table:

Sr. No.	Elcom part codes (ordering code)	Rated Current rating (A) @40°C	Leakage current (mA) @250VAC	Terminals (X)		Max. Peak current (8/20 µ sec 1 time) (KA)	Energy surge rating (10/1000 µ sec) (Joules)	Approx. Weight (gm)	Attenuation
				Fast-on 	Wire 				
1	EF-1B001X01E-B15	1	< 0.5	B	G	----	----	100	Standard
2	EF-1B001X02E-B15	1	< 0.5	B	G	6.5	175	100	Standard
3	EF-1B001X03E-B15	1	< 0.003	B	G	----	----	100	Standard
4	EF-1B001X04E-B15	1	< 0.003	B	G	6.5	175	100	Standard
5	EF-1B003X01E-B15	3	< 0.5	B	G	----	----	100	Standard
6	EF-1B003X02E-B15	3	< 0.5	B	G	6.5	175	100	Standard
7	EF-1B003X03E-B15	3	< 0.003	B	G	----	----	100	Standard
8	EF-1B003X04E-B15	3	< 0.003	B	G	6.5	175	100	Standard
9	EF-1B006X01E-B15	6	< 0.5	B	G	----	----	100	Standard
10	EF-1B006X02E-B15	6	< 0.5	B	G	6.5	175	100	Standard
11	EF-1B006X03E-B15	6	< 0.003	B	G	----	----	100	Standard
12	EF-1B006X04E-B15	6	< 0.003	B	G	6.5	175	100	Standard
13	EF-1B010X01E-B15	10	< 0.5	B	G	----	----	100	Standard
14	EF-1B010X02E-B15	10	< 0.5	B	G	6.5	175	100	Standard
15	EF-1B010X03E-B15	10	< 0.003	B	G	----	----	100	Standard
16	EF-1B010X04E-B15	10	< 0.003	B	G	6.5	175	100	Standard
Sr. No.	**Elcom part codes (ordering code)**	**Rated Current rating (A) @40°C**	**Leakage current (mA) @250VAC**	**Terminals (X)**		**Max. Peak current (8/20 µ sec 1 time) (KA)**	**Energy surge rating (10/1000 µ sec) (Joules)**	**Approx. Weight (gm)**	**Attenuation**
				Fast-on 	**Wire** 				
17	EF-1B015X01E-B15	15	< 0.5	B	G	----	----	90	Standard
18	EF-1B015X02E-B15	15	< 0.5	B	G	10	350	90	Standard
19	EF-1B015X03E-B15	15	< 0.003	B	G	----	----	90	Standard
20	EF-1B015X04E-B15	15	< 0.003	B	G	10	350	90	Standard
21	EF-1B020X01E-B15	20	< 0.5	B	G	----	----	90	Standard

22	EF-1B020X02E-B15	20	< 0.5	B	G	10	350	90	Standard
23	EF-1B020X03E-B15	20	< 0.003	B	G	----	----	90	Standard
24	EF-1B020X04E-B15	20	< 0.003	B	G	10	350	90	Standard
25	EF-1B001X20E-B15	1	< 0.5	B	G	----	----	90	High
26	EF-1B001X21E-B15	1	< 0.5	B	G	6.5	175	100	High
27	EF-1B001X22E-B15	1	< 0.003	B	G	----	----	100	High
28	EF-1B001X23E-B15	1	< 0.003	B	G	6.5	175	100	High
29	EF-1B003X20E-B15	3	< 0.5	B	G	----	----	100	High
30	EF-1B003X21E-B15	3	< 0.5	B	G	6.5	175	100	High
31	EF-1B003X22E-B15	3	< 0.003	B	G	----	----	100	High
32	EF-1B003X23E-B15	3	< 0.003	B	G	6.5	175	100	High
33	EF-1B006X20E-B15	6	< 0.5	B	G	----	----	100	High
34	EF-1B006X21E-B15	6	< 0.5	B	G	6.5	175	100	High
35	EF-1B006X22E-B15	6	< 0.003	B	G	----	----	100	High
36	EF-1B006X23E-B15	6	< 0.003	B	G	6.5	175	100	High
37	EF-1B010X20E-B15	10	< 0.5	B	G	----	----	100	High
38	EF-1B010X21E-B15	10	< 0.5	B	G	6.5	175	100	High
39	EF-1B010X22E-B15	10	< 0.003	B	G	----	----	100	High
40	EF-1B010X23E-B15	10	< 0.003	B	G	6.5	175	100	High
41	EF-1B015X20E-B15	15	< 0.5	B	G	----	----	100	High

Sr. No.	**Elcom part codes (ordering code)**	**Rated Current rating (A) @40°C**	**Leakage current (mA) @250VAC**	**Terminals (X)**		**Max. Peak current (8/20 µ sec 1 time) (KA)**	**Energy surge rating (10/1000 µ sec) (Joules)**	**Weight (gm)**	**Attenuation**
				Fast-on 	**Wire** 				
42	EF-1B015X21E-B15	15	< 0.5	B	G	10	350	100	High
43	EF-1B015X22E-B15	15	< 0.003	B	G	----	----	100	High
44	EF-1B015X23E-B15	15	< 0.003	B	G	10	350	100	High
45	EF-1B020X20E-B15	20	< 0.5	B	G	----	----	100	High
46	EF-1B020X21E-B15	20	< 0.5	B	G	10	350	100	High
47	EF-1B020X22E-B15	20	< 0.003	B	G	----	----	100	High

Datasheet | EB15

48	EF-1B020X23E-B15	20	< 0.003	B	G	10	350	100	High

- To compile complete part number, replace the 'X' with required I/O connection terminal. (e.g. EF-1B001B20G-B15)
- 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 type

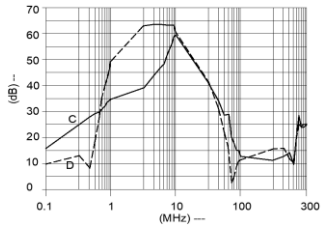
Current Rating (A)	Fast -on	Wire	Earthing
1,3 & 6	6.3 X 0.8mm	18AWG	Fast-on/wire leads
10 & 15		14AWG	
20		12AWG	

Filter attenuation graph

C = Common mode (asymmetrical) ———— D = Differential mode (symmetrical) - - - - - - - - - - - -

For general purpose (Single Stage)

1A



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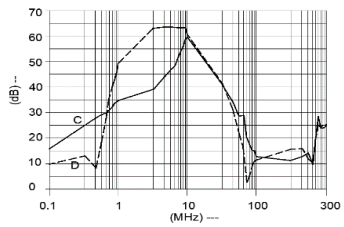

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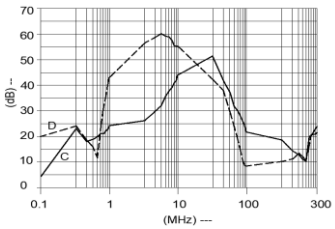

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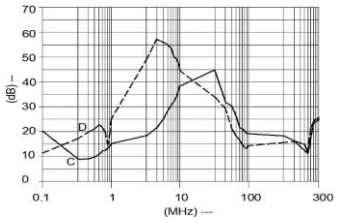

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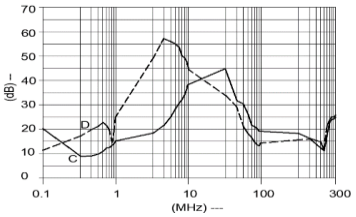

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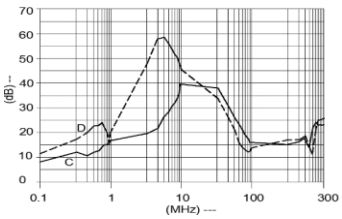
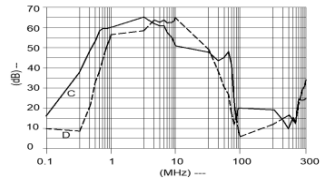


For general purpose (Double Stage)

1A



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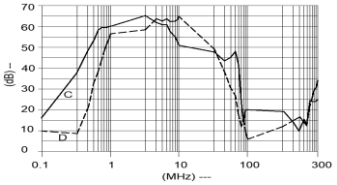

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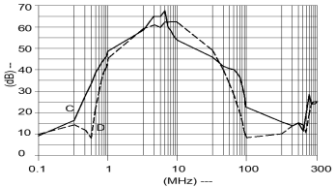

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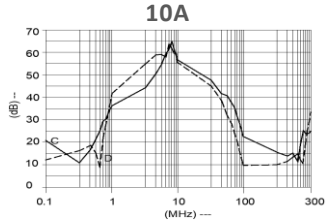

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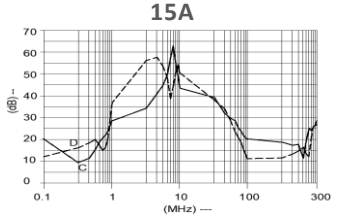

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