

General Purpose AC EMI Filter

El.italia EC-EB14 serie



Image shown is for illustrative purpose only

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.

Attenuation Type

Single Stage	Standard
Double Stage	High

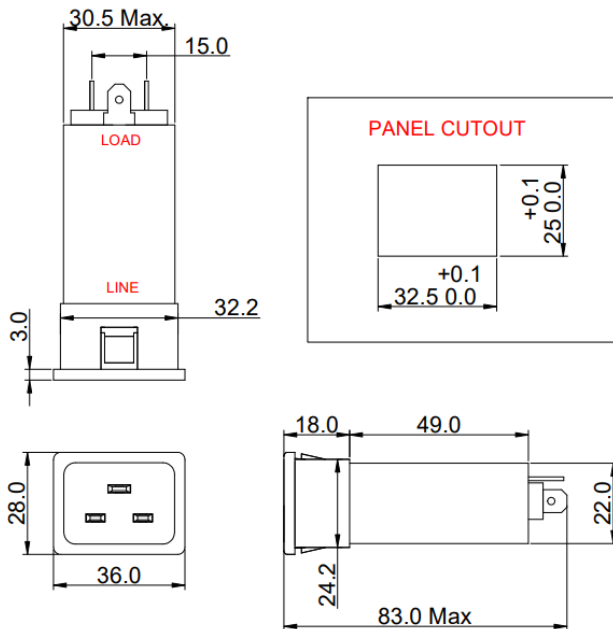
Applications

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

Mechanical details

For fast-on terminal

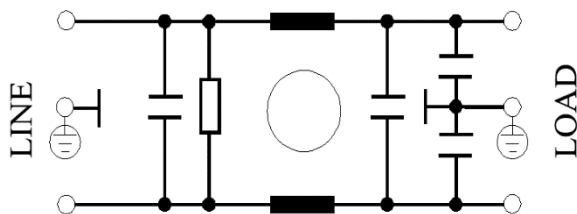
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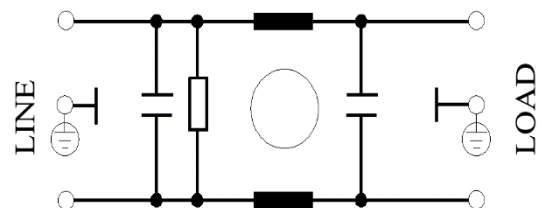
All Dimension in mm
General tolerance=±1mm

Electrical schematic for Single Stage Filter

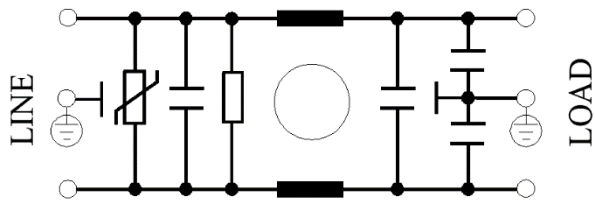
General purpose -



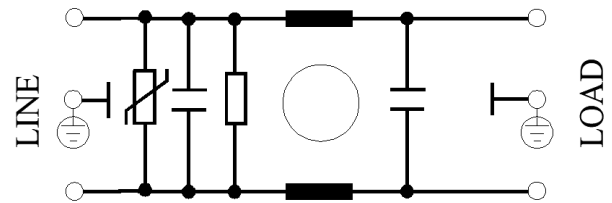
Medical equipment application -



General purpose with Surge Suppressor -

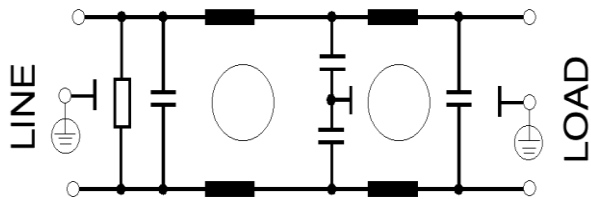


Medical equipment application with Surge Suppressor -

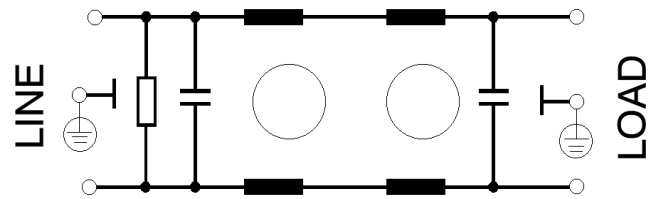


Electrical schematic for Double Stage Filter

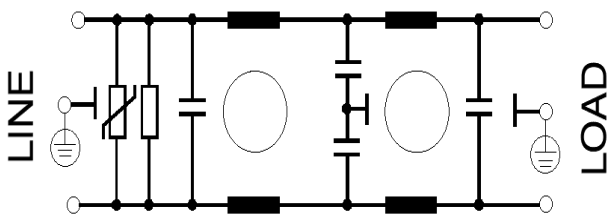
General purpose –



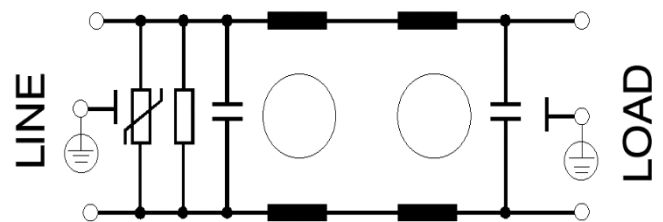
Medical equipment application –



General purpose with Surge Suppressor –



Medical equipment application with Surge Suppressor -



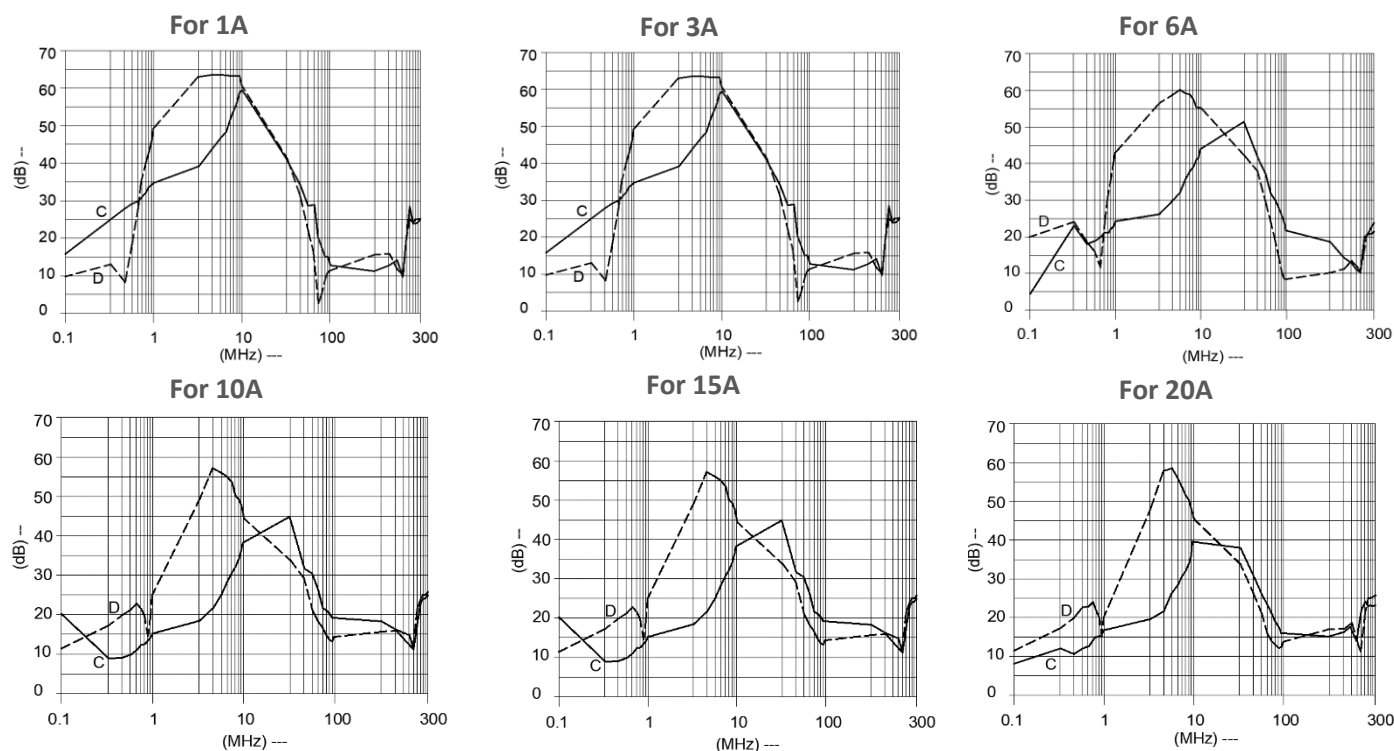
Filter attenuation Graph

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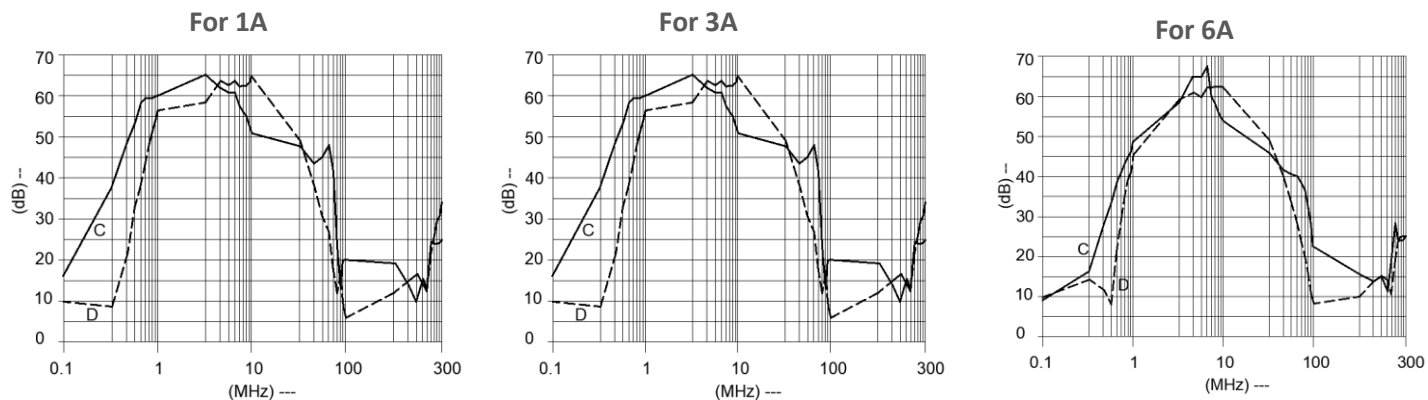
C = Common mode (asymmetrical) -----

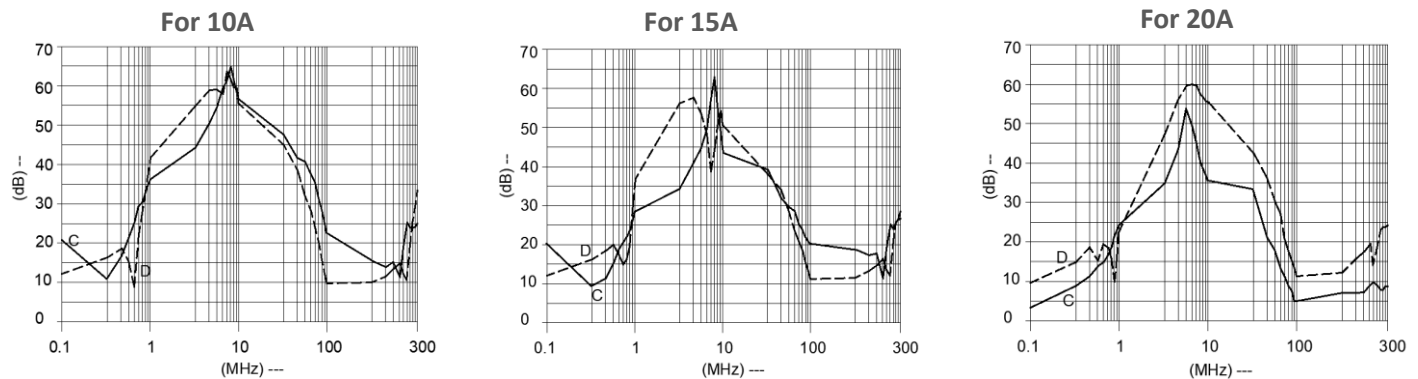
D = Differential mode (symmetrical) -----

For general purpose (Single Stage)



For general purpose (Double Stage)





Filter 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				
1	EF-1B001X01G-B14	1	< 0.5	B	----	----	100	Standard
2	EF-1B001X02G-B14	1	< 0.5	B	6.5	175	100	Standard
3	EF-1B001X03G-B14	1	< 0.003	B	----	----	100	Standard
4	EF-1B001X04G-B14	1	< 0.003	B	6.5	175	100	Standard
5	EF-1B003X01G-B14	3	< 0.5	B	----	----	100	Standard
6	EF-1B003X02G-B14	3	< 0.5	B	6.5	175	100	Standard
7	EF-1B003X03G-B14	3	< 0.003	B	----	----	100	Standard
8	EF-1B003X04G-B14	3	< 0.003	B	6.5	175	100	Standard
9	EF-1B006X01G-B14	6	< 0.5	B	----	----	100	Standard
10	EF-1B006X02G-B14	6	< 0.5	B	6.5	175	100	Standard
11	EF-1B006X03G-B14	6	< 0.003	B	----	----	100	Standard
12	EF-1B006X04G-B14	6	< 0.003	B	6.5	175	100	Standard
13	EF-1B010X01G-B14	10	< 0.5	B	----	----	100	Standard
14	EF-1B010X02G-B14	10	< 0.5	B	6.5	175	100	Standard
15	EF-1B010X03G-B14	10	< 0.003	B	----	----	100	Standard
16	EF-1B010X04G-B14	10	< 0.003	B	6.5	175	100	Standard

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				Fast-on 				
17	EF-1B015X01G-B14	15	< 0.5	B	----	----	90	Standard
18	EF-1B015X02G-B14	15	< 0.5	B	10	350	90	Standard
19	EF-1B015X03G-B14	15	< 0.003	B	----	----	90	Standard
20	EF-1B015X04G-B14	15	< 0.003	B	10	350	90	Standard
21	EF-1B020X01G-B14	20	< 0.5	B	----	----	90	Standard
22	EF-1B020X02G-B14	20	< 0.5	B	10	350	90	Standard
23	EF-1B020X03G-B14	20	< 0.003	B	----	----	90	Standard
24	EF-1B020X04G-B14	20	< 0.003	B	10	350	90	Standard
25	EF-1B001X20G-B14	1	< 0.5	B	----	----	90	High
26	EF-1B001X21G-B14	1	< 0.5	B	6.5	175	100	High
27	EF-1B001X22G-B14	1	< 0.003	B	----	----	100	High
28	EF-1B001X23G-B14	1	< 0.003	B	6.5	175	100	High
29	EF-1B003X20G-B14	3	< 0.5	B	----	----	100	High
30	EF-1B003X21G-B14	3	< 0.5	B	6.5	175	100	High
31	EF-1B003X22G-B14	3	< 0.003	B	----	----	100	High
32	EF-1B003X23G-B14	3	< 0.003	B	6.5	175	100	High
33	EF-1B006X20G-B14	6	< 0.5	B	----	----	100	High
34	EF-1B006X21G-B14	6	< 0.5	B	6.5	175	100	High
35	EF-1B006X22G-B14	6	< 0.003	B	----	----	100	High
36	EF-1B006X23G-B14	6	< 0.003	B	6.5	175	100	High
37	EF-1B010X20G-B14	10	< 0.5	B	----	----	100	High
38	EF-1B010X21E-B14	10	< 0.5	B	6.5	175	100	High
39	EF-1B010X22G-B14	10	< 0.003	B	----	----	100	High
40	EF-1B010X23G-B14	10	< 0.003	B	6.5	175	100	High
41	EF-1B015X20G-B14	15	< 0.5	B	----	----	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 				
42	EF-1B015X21G-B14	15	< 0.5	B	10	350	100	High
43	EF-1B015X22G-B14	15	< 0.003	B	----	----	100	High
44	EF-1B015X23G-B14	15	< 0.003	B	10	350	100	High
45	EF-1B020X20G-B14	20	< 0.5	B	----	----	100	High
46	EF-1B020X21G-B14	20	< 0.5	B	10	350	100	High
47	EF-1B020X22G-B14	20	< 0.003	B	----	----	100	High
48	EF-1B020X23G-B14	20	< 0.003	B	10	350	100	High

- To compile complete part number, replace the 'X' with required I/O connection terminal. (e.g. EF-1B001B20G-B14)
- 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 input & Earthing	Output
1,3 & 6	C20 Inlet	6.3 X 0.8mm
10 & 15		
20		

Syntax

EF - 1B CCC X YY G - B14

