

# Datasheet | EC11 EP-612 series



## General Purpose AC EMI Filter

## El.italia EC-EC11 [EP-612] serie



### Technical specifications

Operating voltage	120/250 VAC
Current rating	80A-150A
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

\*Image shown is for illustrative purpose only

### Features and benefits

- | Filters available in single stage and double stage
- | All filters provide high attenuation performance.
- | Two stage filters designed for noisy application requiring excellent filter performance.
- | All filters compliance to EN60939-3:2015 & EN60939-2:2005 standards.
- | High reliable
- | Chassis mountable filter in fabricated metal can.
- | 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.

### Attenuation Type

Single Stage	Standard
Double Stage	High

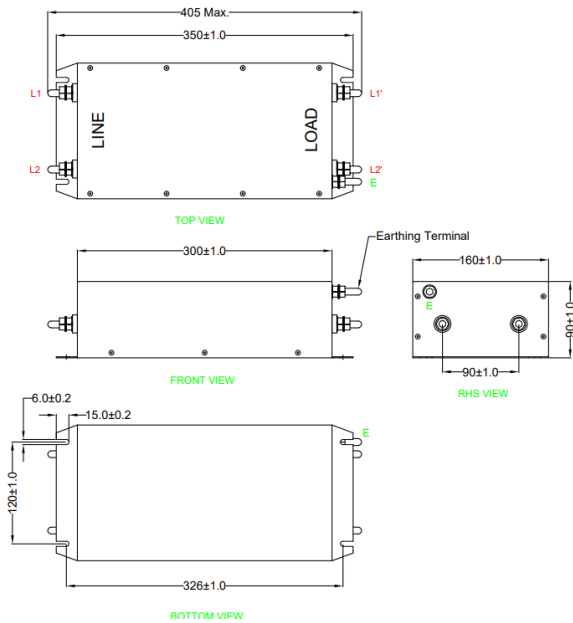
### Applications

- | Defence application
- | Medical equipment
- | Industrial application
- | UPS
- | Solar inverter
- | Electrical equipment application



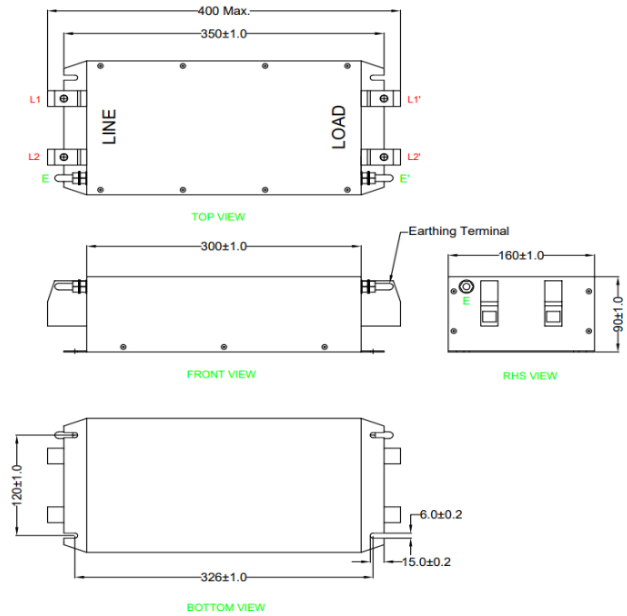
#### Mechanical details

##### | For screw terminal



All dimensions in mm

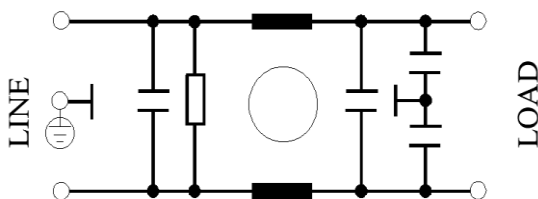
##### | For touch safe terminal



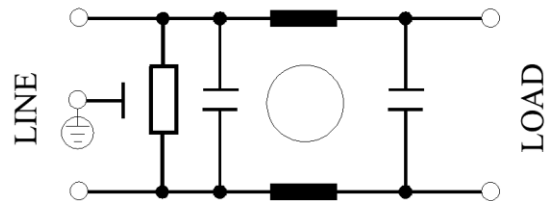
All dimensions in mm

#### Electrical schematic for Single Stage Filter

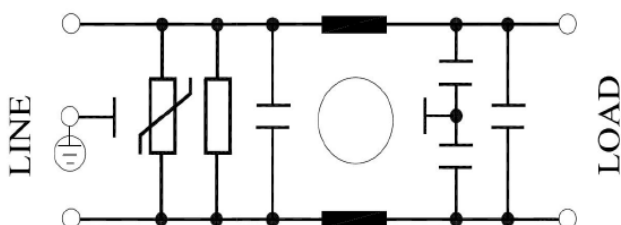
##### General purpose -



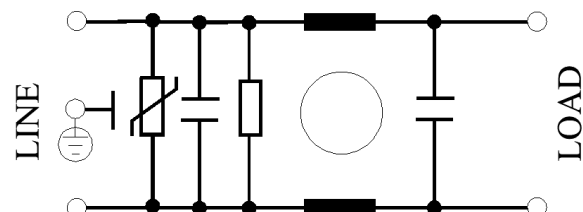
##### Medical equipment application -



##### General purpose with Surge Suppressor -



##### Medical equipment application with Surge Suppressor -



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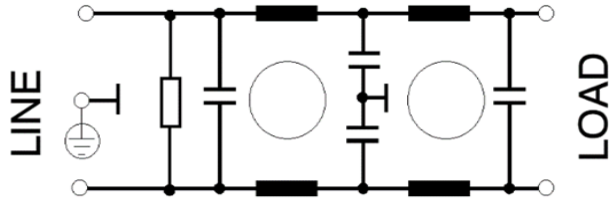
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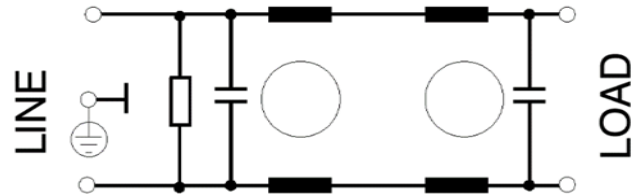
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### Electrical schematic for Double Stage Filter

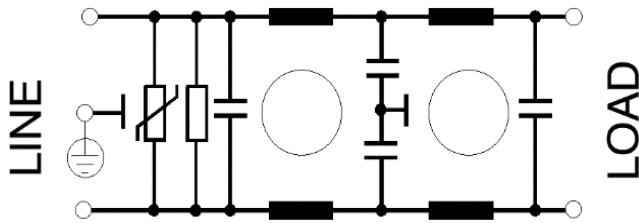
General purpose –



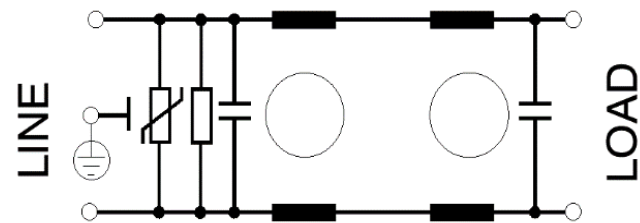
Medical equipment application –



General purpose with Surge Suppressor –



Medical equipment application with Surge Suppressor -



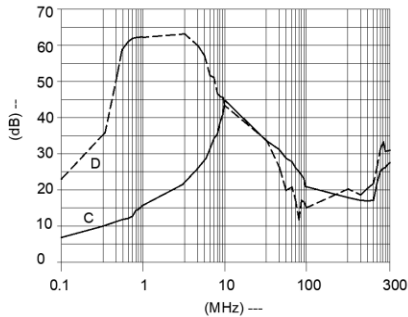
### Filter attenuation Graph

C = Common mode (asymmetrical) —————

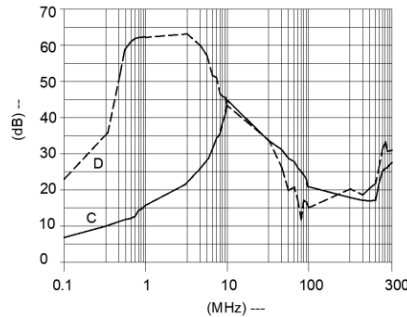
D = Differential mode (symmetrical) - - - - -

### For general application (Single Stage)

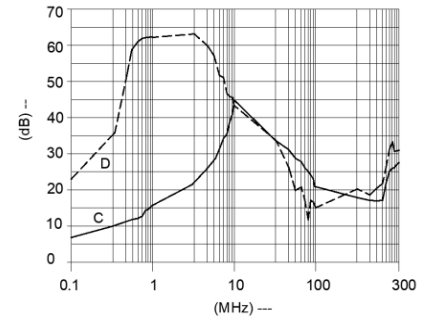
For 80A



For 100A



For 120A



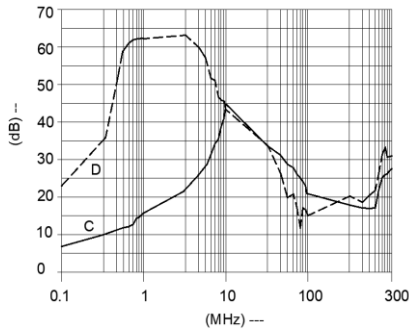
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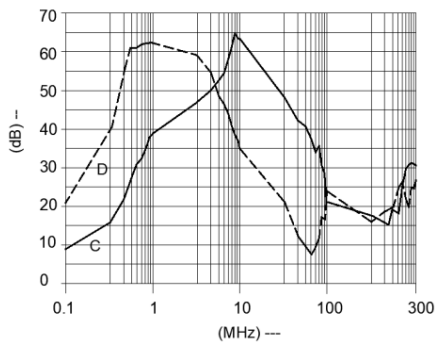
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For 150A

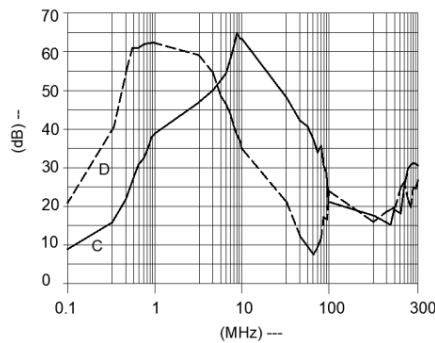


For general application (Double Stage)

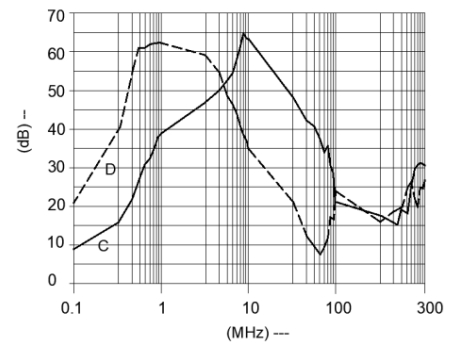
For 80A



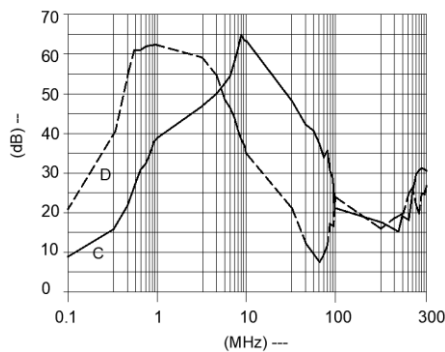
For 100A





For 120A



For 150A



### 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 (Kg)	Attenuation
				Screw 	Touch-safe 				
1	EF-1B080X01E-C11	80	< 0.5	D	F	----	----	3.5	Standard
2	EF-1B080X02E-C11	80	< 0.5	D	F	10	350	3.5	Standard
3	EF-1B080X03E-C11	80	< 0.003	D	F	----	----	3.5	Standard
4	EF-1B080X04E-C11	80	< 0.003	D	F	10	350	3.5	Standard
5	EF-1B100X01E-C11	100	< 0.5	D	F	----	----	4	Standard



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6	EF-1B100X02E-C11	100	< 0.5	D	F	10	350	4	Standard
7	EF-1B100X03E-C11	100	< 0.003	D	F	----	----	4	Standard
8	EF-1B100X04E-C11	100	< 0.003	D	F	10	350	4	Standard
9	EF-1B120X01E-C11	120	< 0.5	D	F	----	----	4	Standard
10	EF-1B120X02E-C11	120	< 0.5	D	F	10	350	4	Standard
11	EF-1B120X03E-C11	120	< 0.003	D	F	----	----	4	Standard
12	EF-1B120X04E-C11	120	< 0.003	D	F	10	350	4	Standard
13	EF-1B150X01E-C11	150	< 0.5	D	F	----	----	4.5	Standard
14	EF-1B150X02E-C11	150	< 0.5	D	F	10	350	4.5	Standard
15	EF-1B150X03E-C11	150	< 0.003	D	F	----	----	4.5	Standard
16	EF-1B150X04E-C11	150	< 0.003	D	F	10	350	4.5	Standard
17	EF-1B080X20E-C11	80	< 0.5	D	F	----	----	4	High
18	EF-1B080X21E-C11	80	< 0.5	D	F	10	350	4	High
19	EF-1B080X22E-C11	80	< 0.003	D	F	----	----	4	High
20	EF-1B080X23E-C11	80	< 0.003	D	F	10	350	4	High
21	EF-1B100X20E-C11	100	< 0.5	D	F	----	----	4.5	High
22	EF-1B100X21E-C11	100	< 0.5	D	F	10	350	4.5	High
23	EF-1B100X22E-C11	100	< 0.003	D	F	----	----	4.5	High
24	EF-1B100X23E-C11	100	< 0.003	D	F	10	350	4.5	High
25	EF-1B120X20E-C11	120	< 0.5	D	F	----	----	4.5	High
26	EF-1B120X21E-C11	120	< 0.5	D	F	10	350	4.5	High
27	EF-1B120X22E-C11	120	< 0.003	D	F	----	----	4.5	High
28	EF-1B120X23E-C11	120	< 0.003	D	F	10	350	4.5	High
29	EF-1B150X20E-C11	150	< 0.5	D	F	----	----	5	High
30	EF-1B150X21E-C11	150	< 0.5	D	F	10	350	5	High
31	EF-1B150X22E-C11	150	< 0.003	D	F	----	----	5	High
32	EF-1B150X23E-C11	150	< 0.003	D	F	10	350	5	High

- To compile complete part number, replace the 'X' with required I/O connection terminal. (e.g. EF-1B100D20E-C11)
- 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.

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### Connection Type

Current Rating (A)	Screw terminal details		Touch safe terminal details		Earthing screw terminal details
	Screw	Recommended tightening torque	Touch safe	Recommended tightening torque	
80	M8	25-30Kgcm	16 Sq.mm	22-25 lbf.in	M6
100	M10	35-40Kgcm	50 Sq.mm	38-40 lbf.in	M6
120	M10	35-40Kgcm	50 Sq.mm	38-40 lbf.in	M6
150	M12	35-40Kgcm	50 Sq.mm	38-40 lbf.in	M6

### Syntax

**EF - 1B CCC X YY E - C11**

