

Datasheet | EC12

EP-612 series



General Purpose AC EMI Filter



*Image shown is for illustrative purpose only

Approvals /Conformance



Technical specifications

Operating voltage	120/250 VAC
Current rating	180A-250A
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.
- | 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.

Attenuation Type

Single Stage	Standard
Double Stage	High

Application

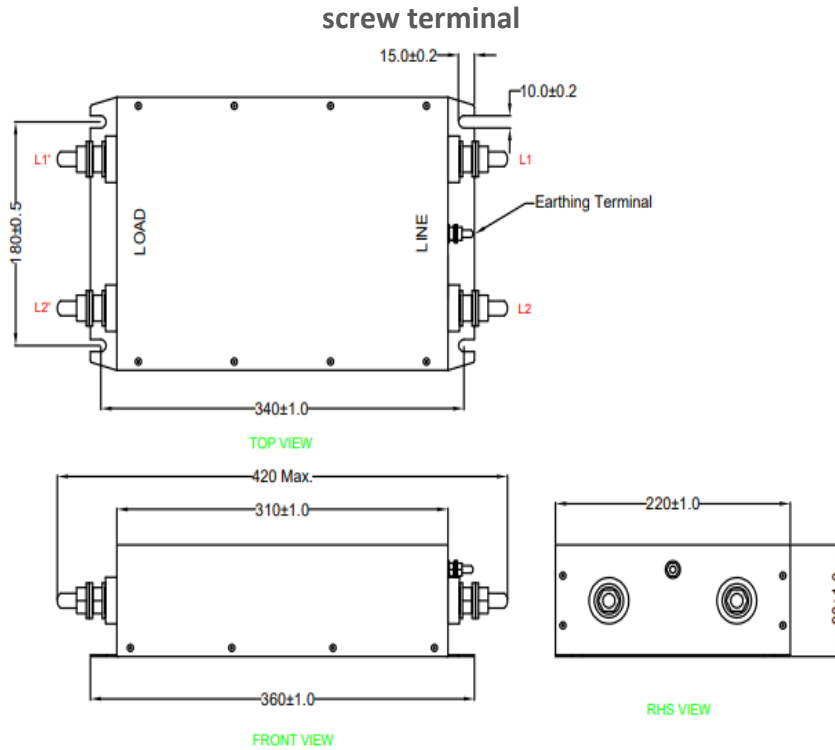
- | Defence application
- | Medical equipment
- | Industrial application
- | UPS
- | Solar inverter
- | Electrical equipment application

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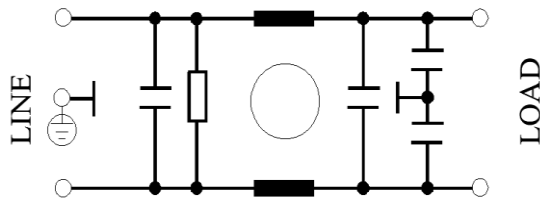
Mechanical details



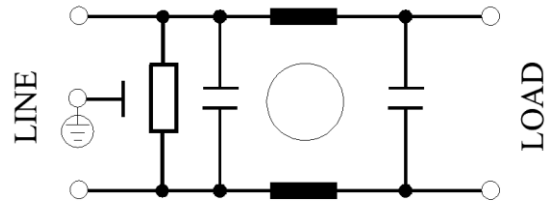
All dimensions in mm

Electrical schematic for Single Stage Filter

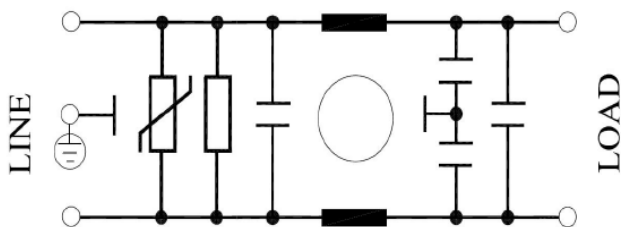
General purpose -



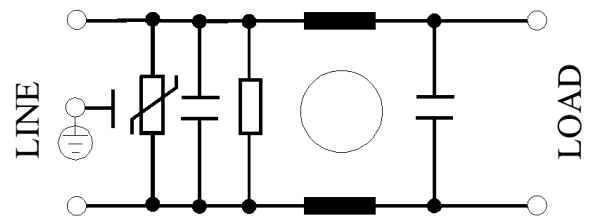
Medical equipment application -



General purpose with Surge Suppressor -



Medical equipment application with Surge Suppressor -



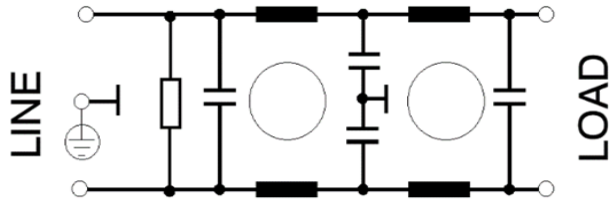
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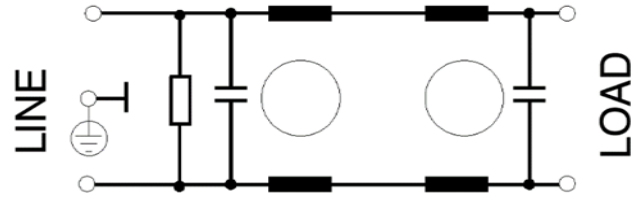


Electrical schematic for Double Stage Filter

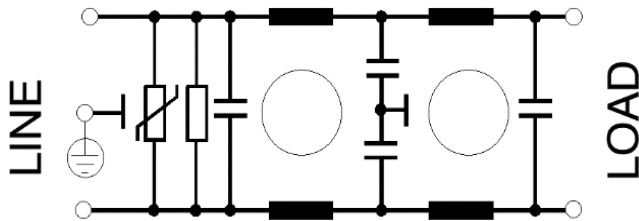
General purpose –



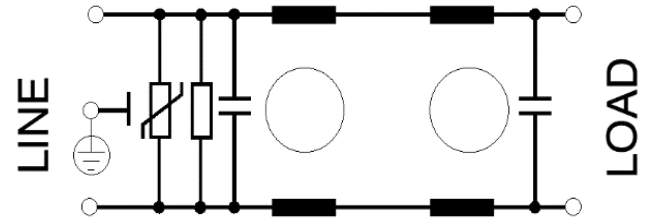
Medical equipment application –



General purpose with Surge Suppressor –



Medical equipment application with Surge Suppressor -



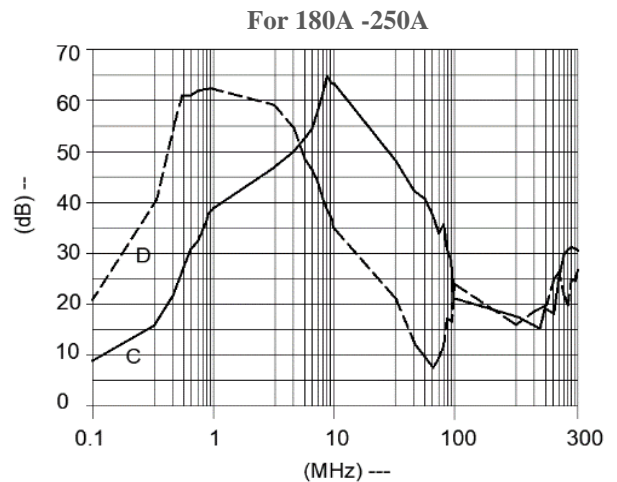
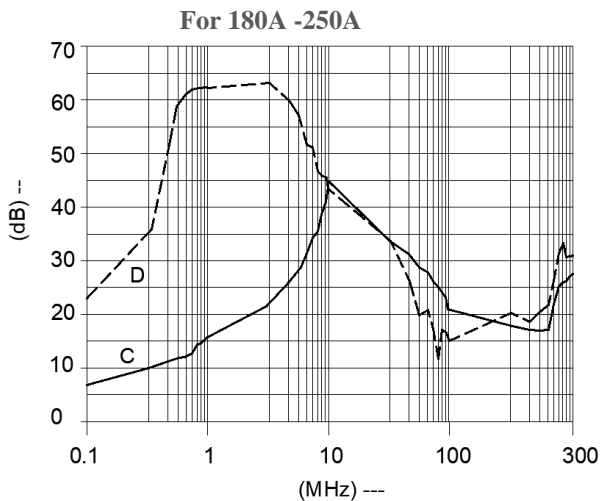
Filter attenuation Graph

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

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

For general application (Single Stage)

For general application (Double Stage)




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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)	Weight (Kg)	Attenuation
				Screw 				
1	EF-1B180X01E-C12	180	< 0.5	D	----	----	6	Standard
2	EF-1B180X02E-C12	180	< 0.5	D	10	350	6	Standard
3	EF-1B180X03E-C12	180	< 0.003	D	----	----	6	Standard
4	EF-1B180X04E-C12	180	< 0.003	D	10	350	6	Standard
5	EF-1B200X01E-C12	200	< 0.5	D	----	----	7	Standard
6	EF-1B200X02E-C12	200	< 0.5	D	10	350	7	Standard
7	EF-1B200X03E-C12	200	< 0.003	D	----	----	7	Standard
8	EF-1B200X04E-C12	200	< 0.003	D	10	350	7	Standard
9	EF-1B250X01E-C12	250	< 0.5	D	----	----	8	Standard
10	EF-1B250X02E-C12	250	< 0.5	D	10	350	8	Standard
11	EF-1B250X03E-C12	250	< 0.003	D	----	----	8	Standard
12	EF-1B250X04E-C12	250	< 0.003	D	10	350	8	Standard
17	EF-1B180X20E-C12	180	< 0.5	D	----	----	7	High
18	EF-1B180X21E-C12	180	< 0.5	D	10	350	7	High
19	EF-1B180X22E-C12	180	< 0.003	D	----	----	7	High
20	EF-1B180X23E-C12	180	< 0.003	D	10	350	7	High
21	EF-1B200X20E-C12	200	< 0.5	D	----	----	8	High
22	EF-1B200X21E-C12	200	< 0.5	D	10	350	8	High
23	EF-1B200X22E-C12	200	< 0.003	D	----	----	8	High
24	EF-1B200X23E-C12	200	< 0.003	D	10	350	8	High
25	EF-1B250X20E-C12	250	< 0.5	D	----	----	9	High
26	EF-1B250X21E-C12	250	< 0.5	D	10	350	9	High
27	EF-1B250X22E-C12	250	< 0.003	D	----	----	9	High
28	EF-1B250X23E-C12	250	< 0.003	D	10	350	9	High

- To compile complete part number, replace the 'X' with required I/O connection terminal. (e.g. EF-1B180D20E-C12)
- Maximum leakage under usual AC operating conditions (acc. IEC 60939-3). Note: 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		Earthing screw terminal details
	Screw	Recommended tightening torque	
180	M12	35-40Kgcm	M6
200	M12	35-40Kgcm	M6
250	M12	35-40Kgcm	M6