

Datasheet | EC10

EP-612 Series



General Purpose AC EMI Filter

El.italia EC-EC10 [EP-612] serie



Image shown is for illustrative purpose only

Technical specifications

Operating voltage	120/250 VAC
Current rating	50A-60A
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.
- | Various terminal options are available.

Attenuation Type

Single Stage	Standard
Double Stage	High

Application

- | Medical equipment
- | Industrial application
- | Automotive application
- | Audio video products
- | Power supplies.
- | Electrical equipment application
- | UPS/inverter

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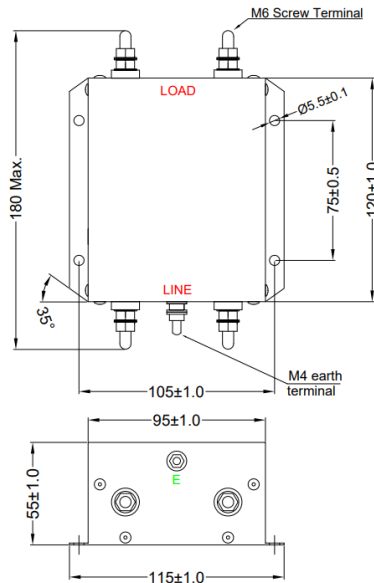
EP-612 Series



Mechanical details

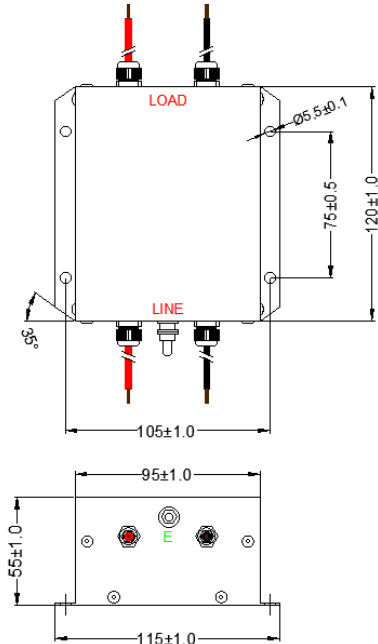
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| For screw terminal



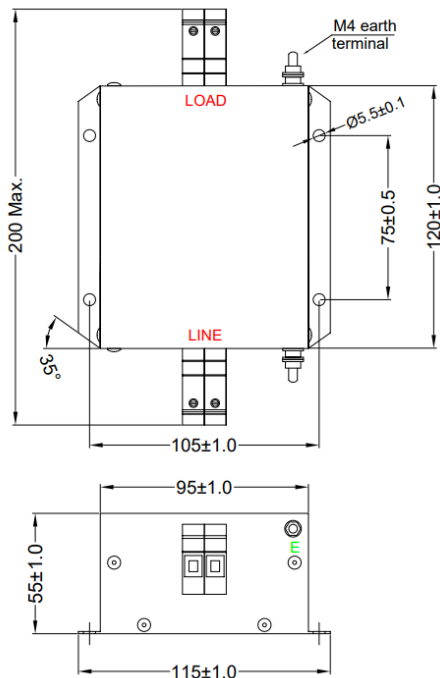
All dimensions in mm

| For wire lead terminal



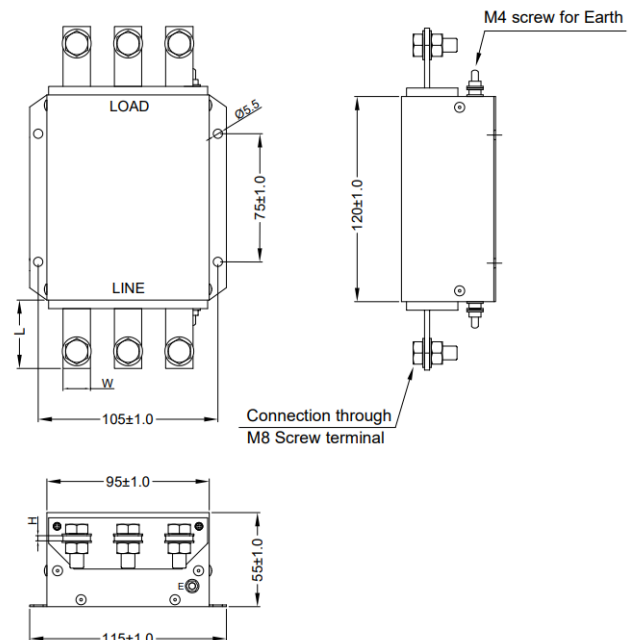
All dimensions in mm

| For touch safe terminal



All dimensions in mm

| For bus-bar terminal



All dimensions in mm

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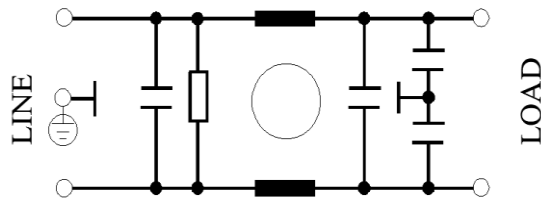
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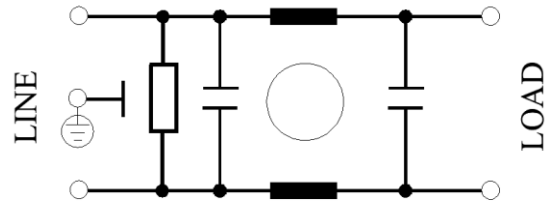
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Electrical schematic for Single Stage Filter

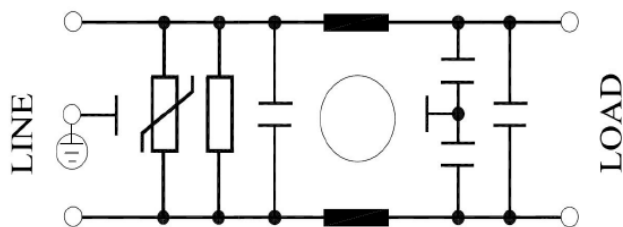
General purpose -



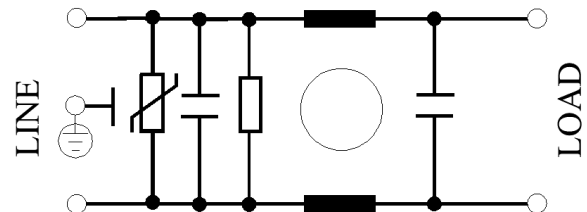
Medical equipment application -



General purpose with Surge Suppressor -

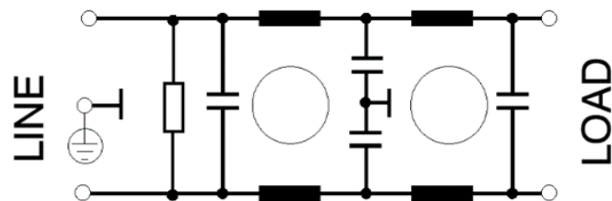


Medical equipment application with Surge Suppressor -

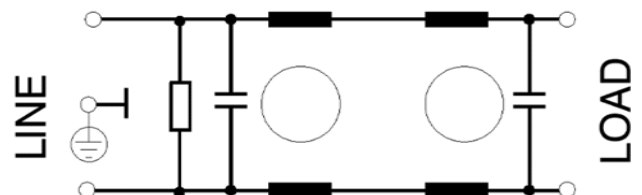


Electrical schematic for Double Stage Filter

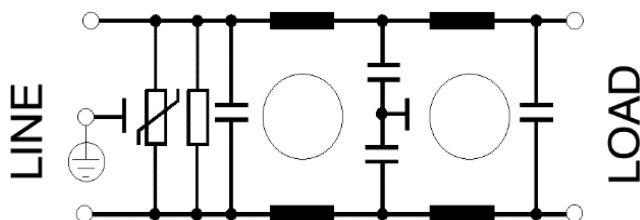
General purpose -



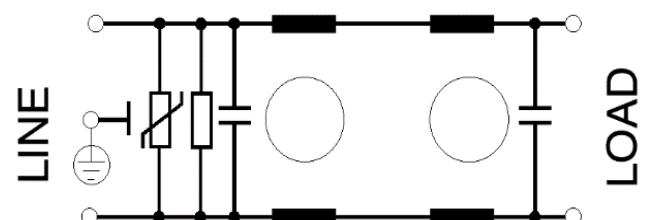
Medical equipment application -



General purpose with Surge Suppressor -



Medical equipment application with Surge Suppressor -



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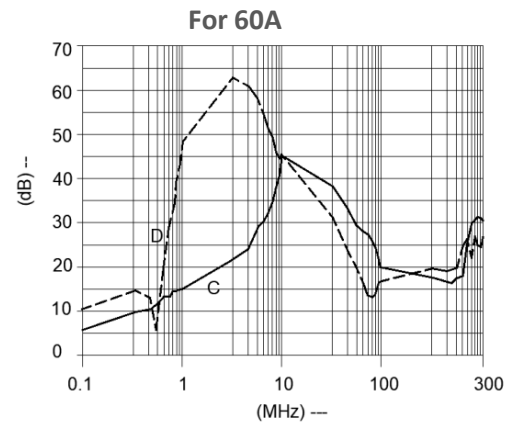
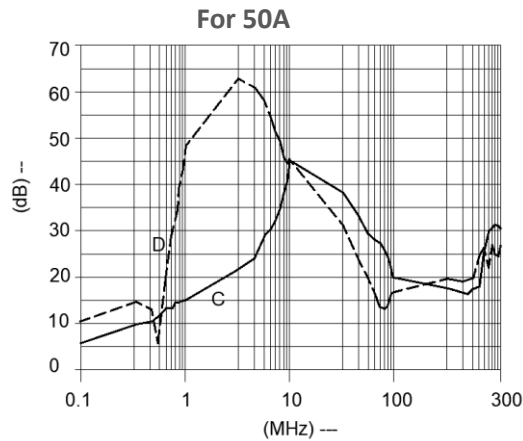
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Filter attenuation Graph

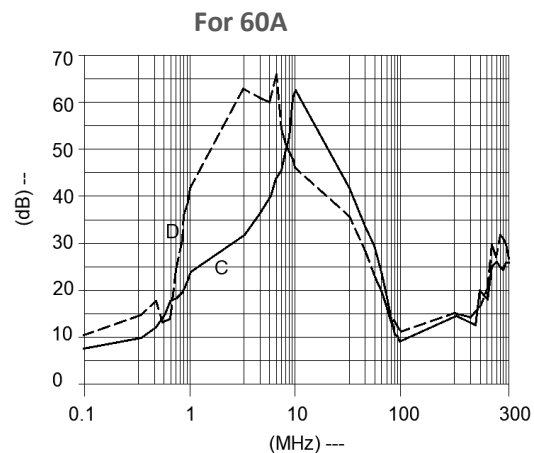
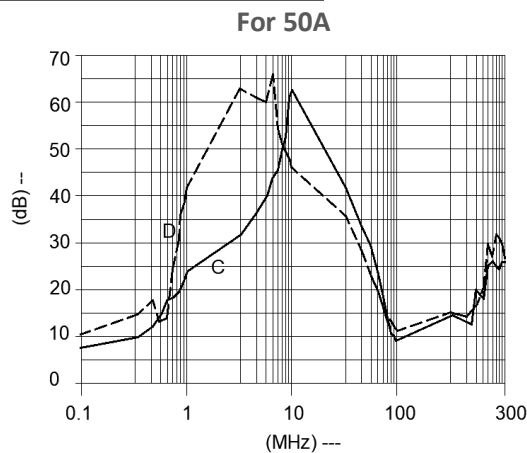
C = Common mode (asymmetrical) -----

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)	Aprrox. Weight (gm)	Attenuation
				Screw 	Bus bar 	Touch-safe 	Wire 				
1	EF-1B050X01E-C10	50	< 0.5	D	*E	F	G	----	----	900	Standard
2	EF-1B050X02E-C10	50	< 0.5	D	*E	F	G	10	350	900	Standard
3	EF-1B050X03E-C10	50	< 0.003	D	*E	F	G	----	----	900	Standard
4	EF-1B050X04E-C10	50	< 0.003	D	*E	F	G	10	350	900	Standard
5	EF-1B060X01E-C10	60	< 0.5	D	*E	F	G	----	----	900	Standard
6	EF-1B060X02E-C10	60	< 0.5	D	*E	F	G	10	350	900	Standard
7	EF-1B060X03E-C10	60	< 0.003	D	*E	F	G	----	----	900	Standard
8	EF-1B060X04E-C10	60	< 0.003	D	*E	F	G	10	350	900	Standard
9	EF-1B050X20E-C09	50	< 0.5	D	*E	F	G	----	----	1000	High
10	EF-1B050X21E-C10	50	< 0.5	D	*E	F	G	10	350	1000	High
11	EF-1B050X22E-C10	50	< 0.003	D	*E	F	G	----	----	1000	High
12	EF-1B050X23E-C10	50	< 0.003	D	*E	F	G	10	350	1000	High
13	EF-1B060X20E-C10	60	< 0.5	D	*E	F	G	----	----	1000	High
14	EF-1B060X21E-C10	60	< 0.5	D	*E	F	G	10	350	1000	High
15	EF-1B060X22E-C10	60	< 0.003	D	*E	F	G	----	----	1000	High
16	EF-1B060X23E-C10	60	< 0.003	D	*E	F	G	10	350	1000	High

- To compile complete part number, replace the 'X' with required I/O connection terminal. (e.g. EF-1B500D20E-C10)
- Recommended tightening torque for touch safe – For 16 sqmm. – 22-25 lbf.in.
- * indicates product having screw terminal I/O connection which have CE and RoHS compliance only. So to compile ordering code 'E' replace by 'G' (e.g.- EF-1B050E01G-C10)
- 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	Bus bar (LxWxH) & Connection screw terminal	Touch safe	Wire	Earthing
50	M6	40x10x2.5 & M8	16 Sq.mm	8 AWG	M4
60	M6	40x10x2.5 & M8	16 Sq.mm	6 AWG	M4

Syntax

EF - 1B CCC X YY Z - C10

