



## General Purpose AC EMI Filter

*El.italia EC-EE03 serie*



### Technical specifications

Operating voltage	120/250 VAC
Current rating	1A-10A
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

### Attenuation Type

Single Stage

**Standard**

### Applications

- | Electrical and electronic equipment
- | Consumer product
- | Medical equipment
- | SMPS
- | Test & measurement equipment
- | Small to medium-sized machines and household equipment
- | Office automation equipment

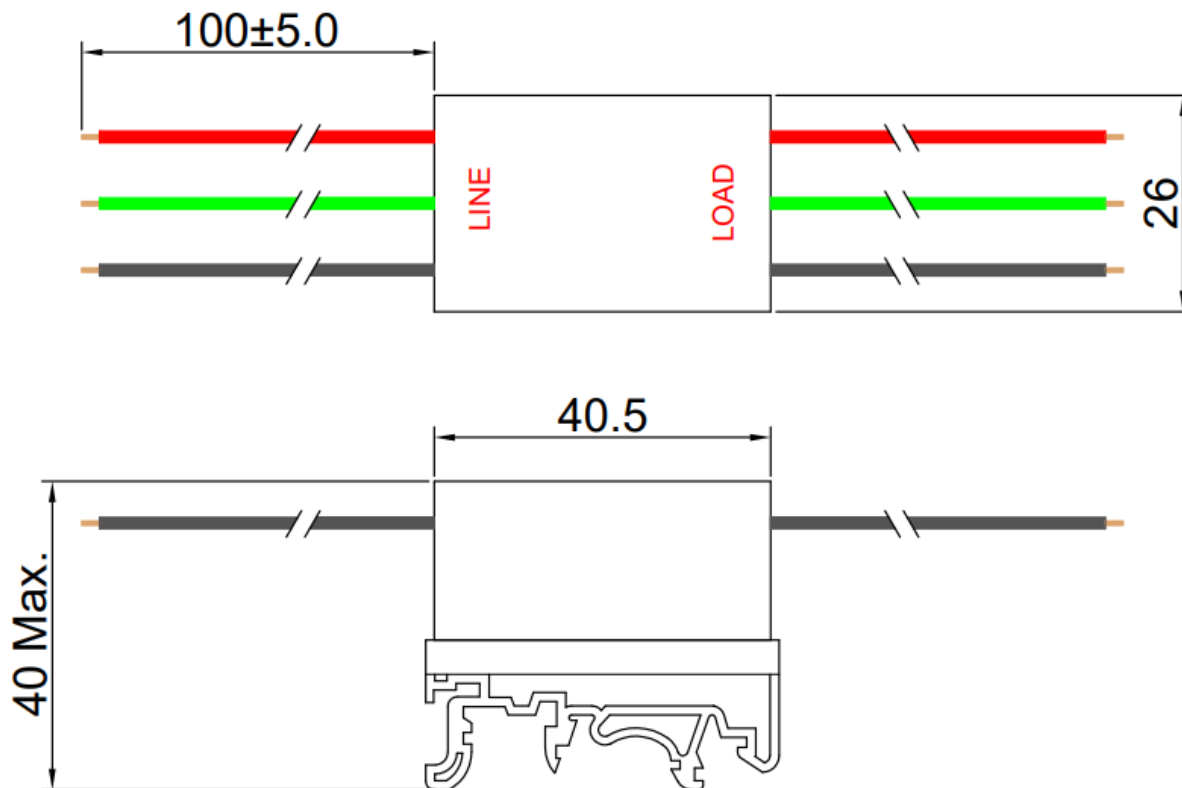
### Features and benefits

- | All filters provide high attenuation performance.
- | All filters compliance to EN60939-3:2015 & EN60939- 2:2005 standards.
- | Compact drill rail mounting design.
- | High reliable.
- | Plastic housing with good aesthetic.
- | Single stage.
- | Input and output connection through wire
- | Filters available in medical version without capacitor to earth.
- | With surge suppressor filters also available.
- | Cost effective solution.



## Mechanical details

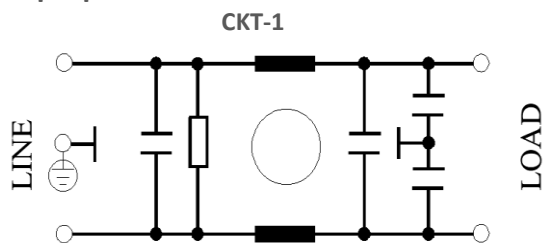
*El.italia EC-EE03 serie*



All dimensions in mm  
General tolerance=±2%

## Electrical schematic for Single Stage Filter

General purpose –





## El.italia EC-EE03 serie

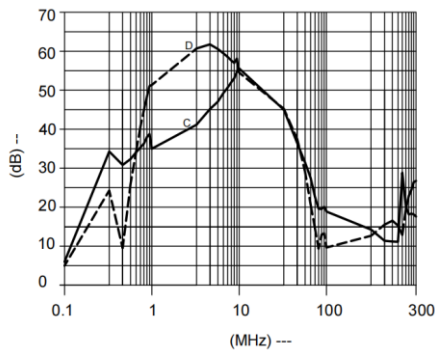
### Filter attenuation Graph

C = Common mode (asymmetrical) —————

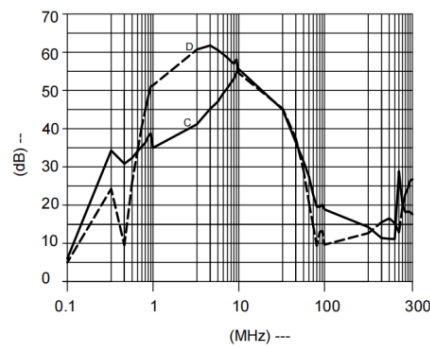
D = Differential mode (symmetrical) - - - - -

For general application (Single Stage)

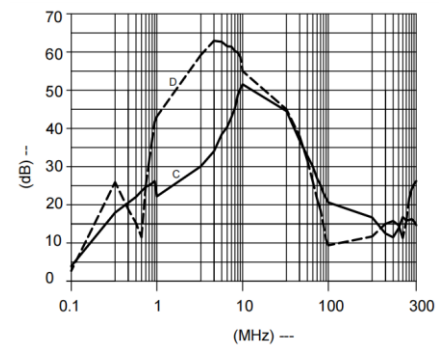
For 1A



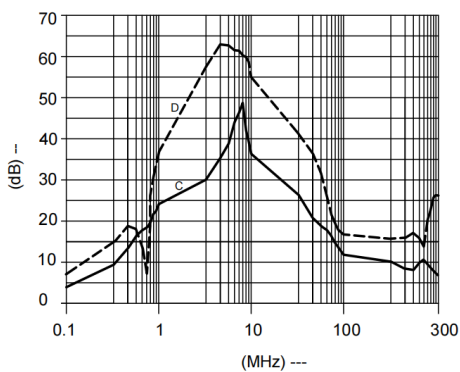
For 3A




For 6A



For 10A



### Filter Selection Table

Sr. No.	Elcom part codes (ordering code)	Rated Current rating (A) @40°C	Leakage current (mA) @250VAC	Terminal	Approx. Weight (gm)	Attenuation
				Wire 		
1	EF-1B001G01G-E03	1	< 0.5	G	75	Standard
2	EF-1B003G01G-E03	3	< 0.5	G	75	Standard
3	EF-1B006G01G-E03	6	< 0.5	G	75	Standard
4	EF-1B010G01G-E03	10	< 0.5	G	75	Standard

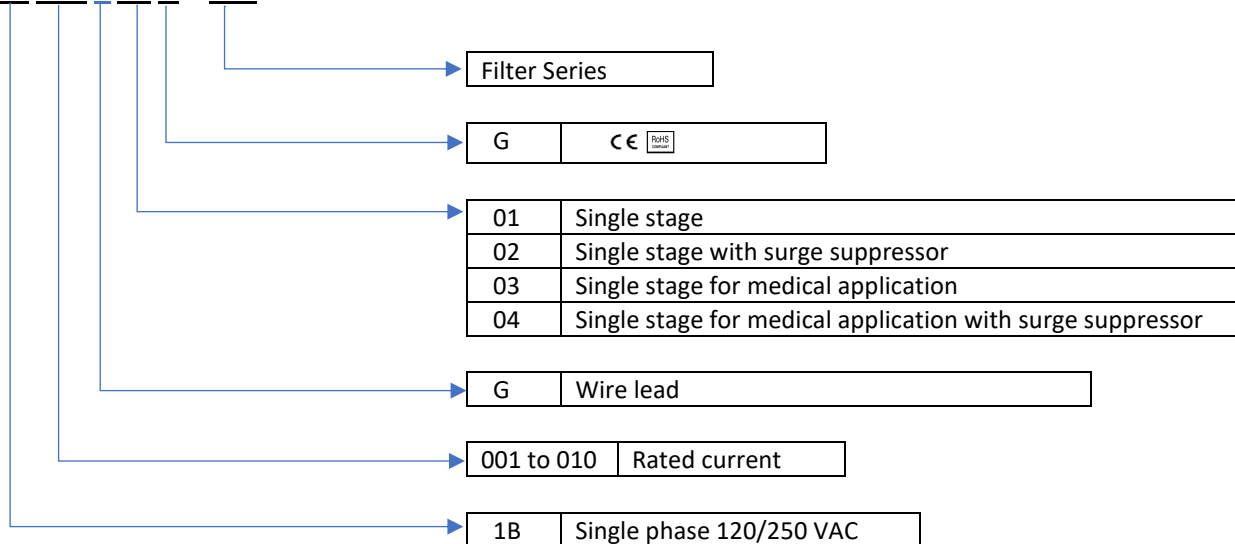


### Connection Type

Current Rating (A)	Wire terminal	Earthing
1 & 3	0.5 sqmm	Wire lead
6	0.75 sqmm	
10	1 sqmm	

### Syntax

**EF - 1B CCC X YY G - E03**



- To compile complete part number, replace the 'X' with required I/O connection terminal. (e.g. EF-1B001G01G-E03).
- 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.



## General Purpose AC EMI Filter

*El.italia EC-EE04 serie*



### Technical specifications

Operating voltage	120/250 VAC
Current rating	1A-10A
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

- | All filters provide high attenuation performance.
- | All filters compliance to EN60939-3:2015 & EN60939- 2:2005 standards.
- | Compact din rail mounting design.
- | High reliable.
- | Plastic housing with good aesthetic.
- | Single stage.
- | Input and output connection through touch safe terminal
- | Filters available in medical version without capacitor to earth.
- | With surge suppressor filters also available.
- | Cost effective solution.

### Attenuation Type

Single Stage

**Standard**

### Applications

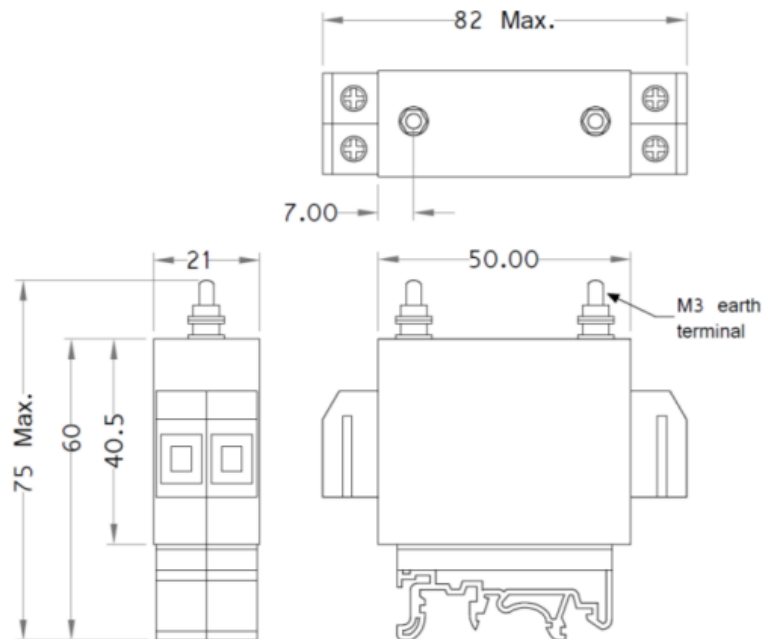
- | Consumer product
- | Defence application
- | Medical equipment
- | Industrial application
- | Automotive application
- | Weighting Machines
- | Printing Machinery
- | Electrical equipment application
- | Office automation equipment



## Mechanical details

*El.italia EC-EE04 serie*

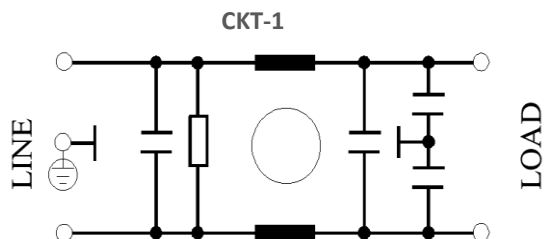
| For touch safe terminal



All dimensions in mm

## Electrical schematic for Single Stage Filter

General purpose –





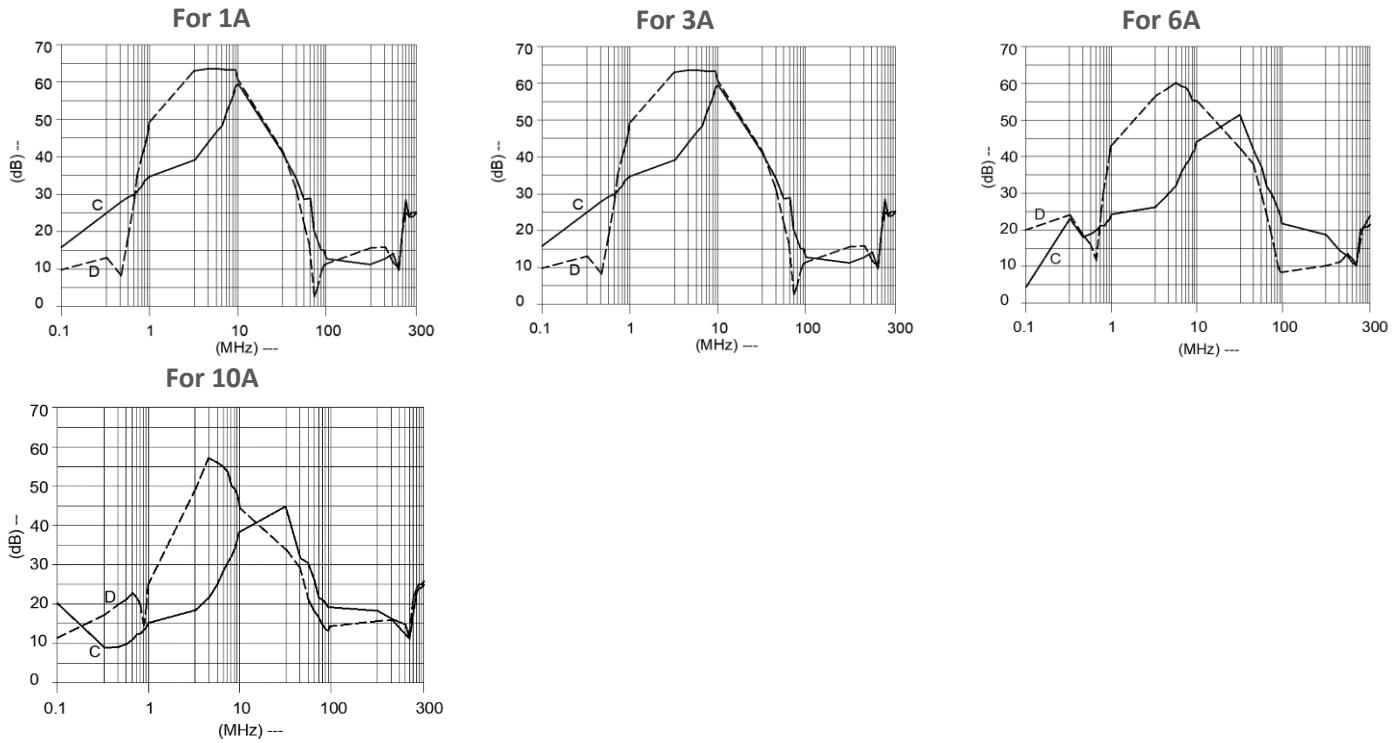
## El.italia EC-EE04 serie

### Filter attenuation Graph


C = Common mode (asymmetrical) —————

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

#### For general application (Single Stage)



### Filter Selection Table

Sr. No.	Elcom part codes (ordering code)	Rated Current rating (A) @40°C	Leakage current (mA) @250VAC	Terminals (X)	Approx. Weight (gm)	Attenuation
				Touch safe 		
1	EF-1B001F01G-E04	1	< 0.5	F	100	Standard
2	EF-1B003F01G-E04	3	< 0.5	F	100	Standard
3	EF-1B006F01G-E04	6	< 0.5	F	100	Standard
4	EF-1B010F01G-E04	10	< 0.5	F	100	Standard



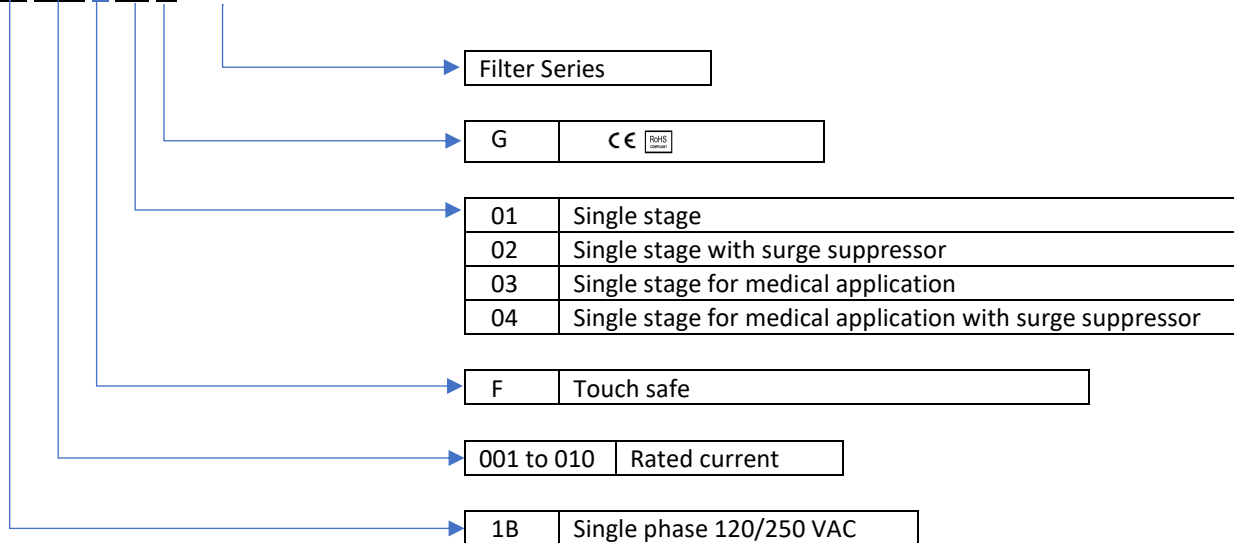
## Connection Type

## El.italia EC-EE04 serie

Current Rating (A)	Touch safe terminal	Earthing
1A-10A	6 sqmm	screw

## Syntax

**EF - 1B CCC X YY G - E04**



- To compile complete part number, replace the 'X' with required I/O connection terminal. (e.g. EF-1B001F01G-E04).
- 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.
- Recommended tightening torque for touch safe – For 6 sqmm. – 10.6-13 lbf.in.
- Customize products provided on request.





## General Purpose AC EMI Filter

*El.italia EC-EE05 serie*



### Technical specifications

Operating voltage	120/250 VAC
Current rating	1A-10A
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.
- | All filters provide high attenuation performance.
- | All filters compliance to EN60939-3:2015 & EN60939-2:2005 standards.
- | High reliable
- | Easy and fast din rail mounting filter with compact size.
- | 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**

### Applications

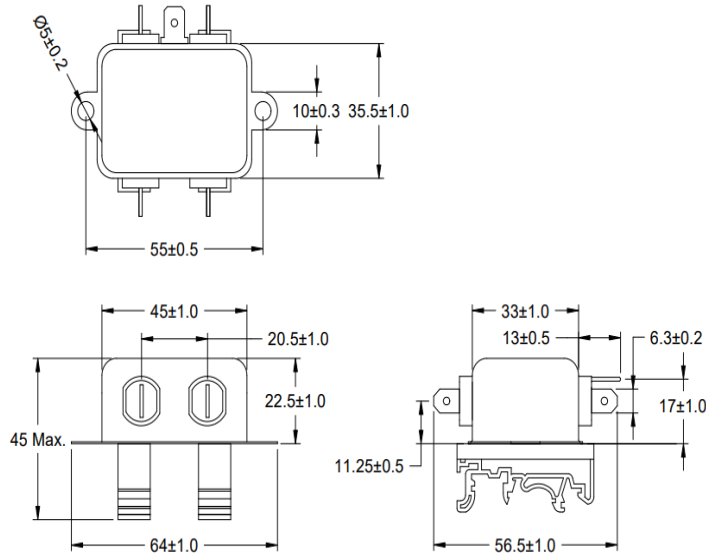
- | Medical equipment
- | Industrial application
- | Automotive application
- | Electrical equipment application
- | Office automation equipment



## Mechanical details

### El.italia EC-EE05 serie

For fast-on terminal

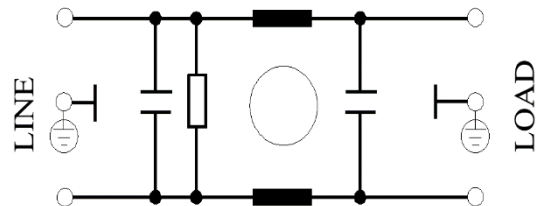
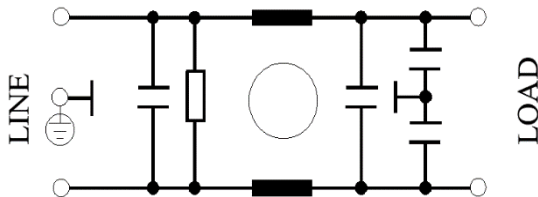


All dimensions in mm

## Electrical schematic for Single Stage Filter

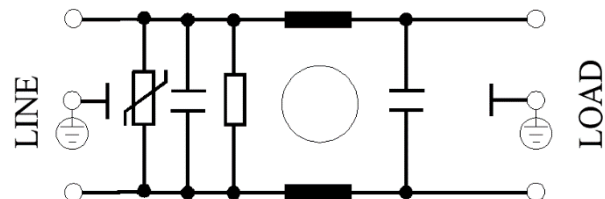
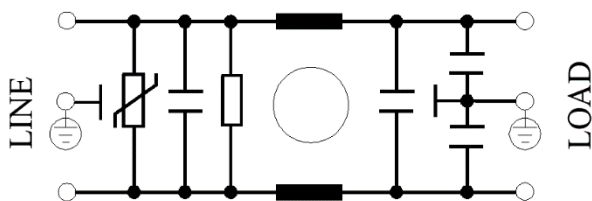
General purpose –

Medical equipment application -



General purpose with Surge Suppressor -

Medical application with Surge Suppressor -



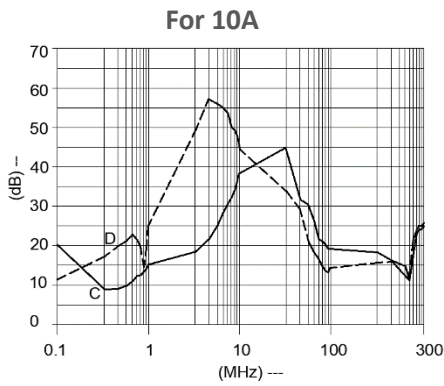
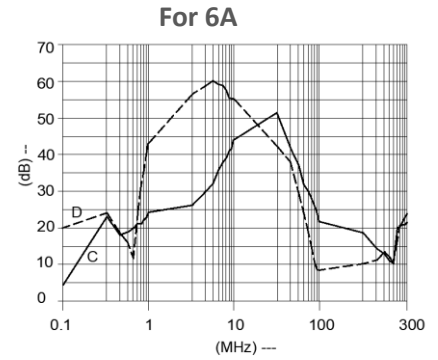
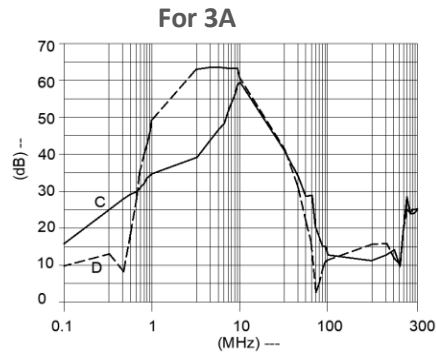
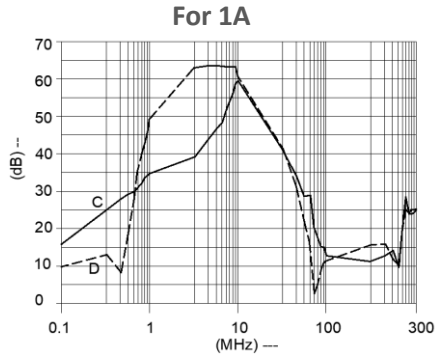


## El.italia EC-EE05 serie

### Filter attenuation Graph

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


For general application (Single Stage)





## Filter Selection Table

## El.italia EC-EE05 serie

Sr. No.	Elcom part codes (ordering code)	Rated Current rating (A) @40°C	Leakage current (mA) @250VAC	Terminals (X)	Approx. Weight (gm)	Attenuation
				Fast-on 		
1	EF-1B001B01G-E05	1	< 0.5	B	120	Standard
2	EF-1B001B02G-E05	1	< 0.5	B	120	Standard
3	EF-1B001B03G-E05	1	< 0.003	B	120	Standard
4	EF-1B001B04G-E05	1	< 0.003	B	120	Standard
5	EF-1B003B01G-E05	3	< 0.5	B	120	Standard
6	EF-1B003B02G-E05	3	< 0.5	B	120	Standard
7	EF-1B003B03G-E05	3	< 0.003	B	120	Standard
8	EF-1B003B04G-E05	3	< 0.003	B	120	Standard
9	EF-1B006B01G-E05	6	< 0.5	B	120	Standard
10	EF-1B006B02G-E05	6	< 0.5	B	120	Standard
11	EF-1B006B03G-E05	6	< 0.003	B	120	Standard
12	EF-1B006B04G-E05	6	< 0.003	B	120	Standard
13	EF-1B010B01G-E05	10	< 0.5	B	120	Standard
14	EF-1B010B02G-E05	10	< 0.5	B	120	Standard
15	EF-1B010B03G-E05	10	< 0.003	B	120	Standard
16	EF-1B010B04G-E05	10	< 0.003	B	120	Standard

- To compile complete part number, replace the 'X' with required I/O connection terminal. (e.g. EF-1B001B01G-E05).
- 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.



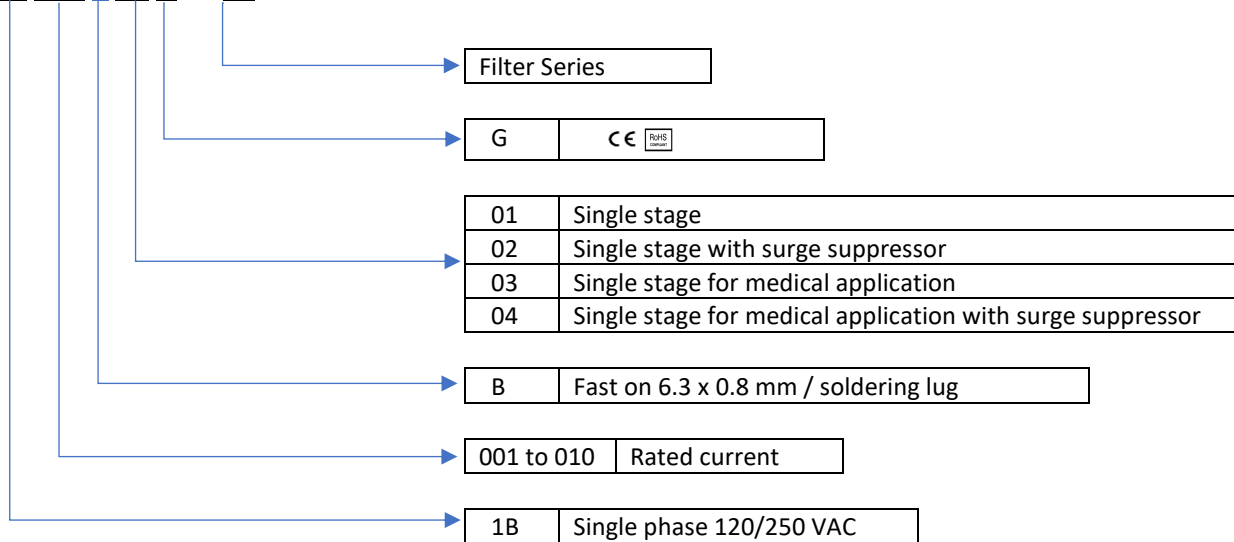
## Connection Type

*El.italia EC-EE05 serie*

Current Rating (A)	Input & output terminal
1A-10A	Fast -on 6.3 X 0.8mm

## Syntax

EF - 1B CCC X YY G - E05





## General Purpose AC EMI Filter



\*Image shown is for illustrative purpose only

## El.italia EC-EE06 serie



### 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.
- | Two stage filters designed for noisy application requiring excellent filter performance.
- | All filters compliance to EN60939-3:2015 & EN60939-2:2005 standards.
- | High reliable
- | Easy and fast drill rail mounting filter with compact size.
- | 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

### Applications

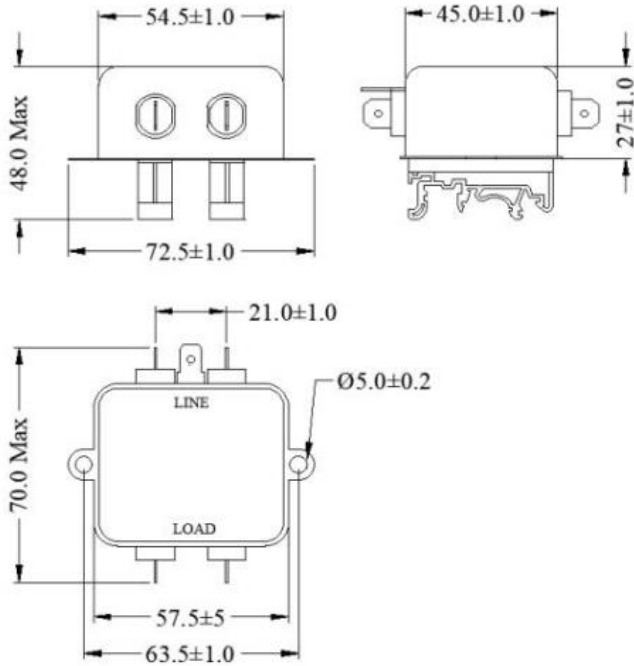
- | Consumer product
- | Defence application
- | Medical equipment
- | Industrial application
- | Automotive application
- | Weighting Machines
- | Printing Machinery
- | Electrical equipment application
- | Office automation equipment



## Mechanical details

*El.italia EC-EE06 serie*

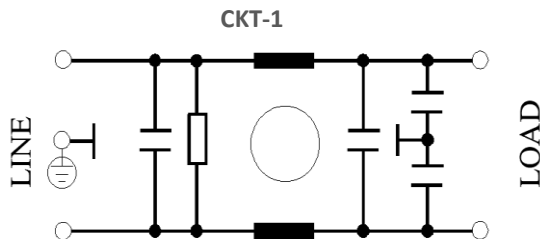
For fast-on terminal



All dimensions in mm

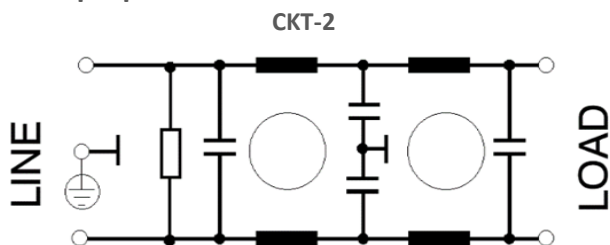
## Electrical schematic for Single Stage Filter

General purpose –



## Electrical schematic for Double Stage Filter

General purpose –





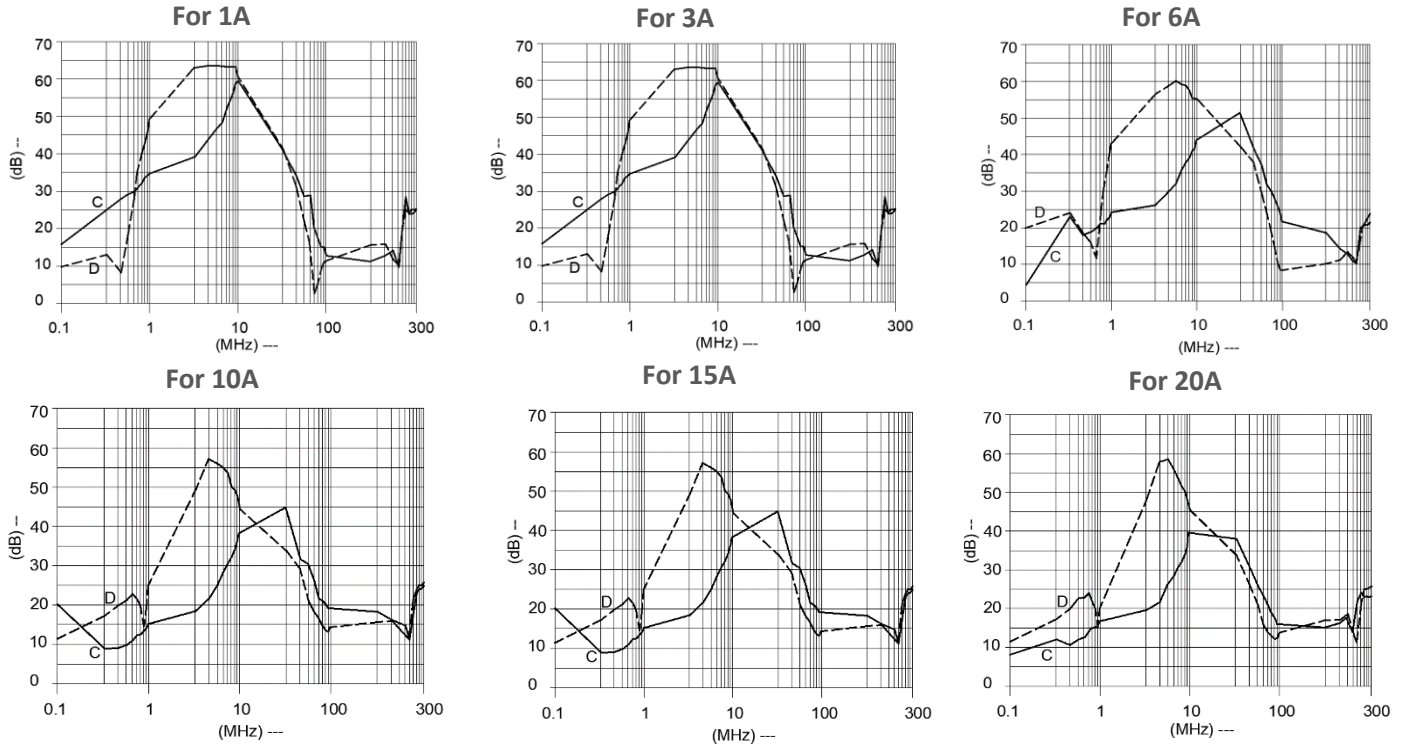
## El.italia EC-EE06 serie

### Filter attenuation Graph

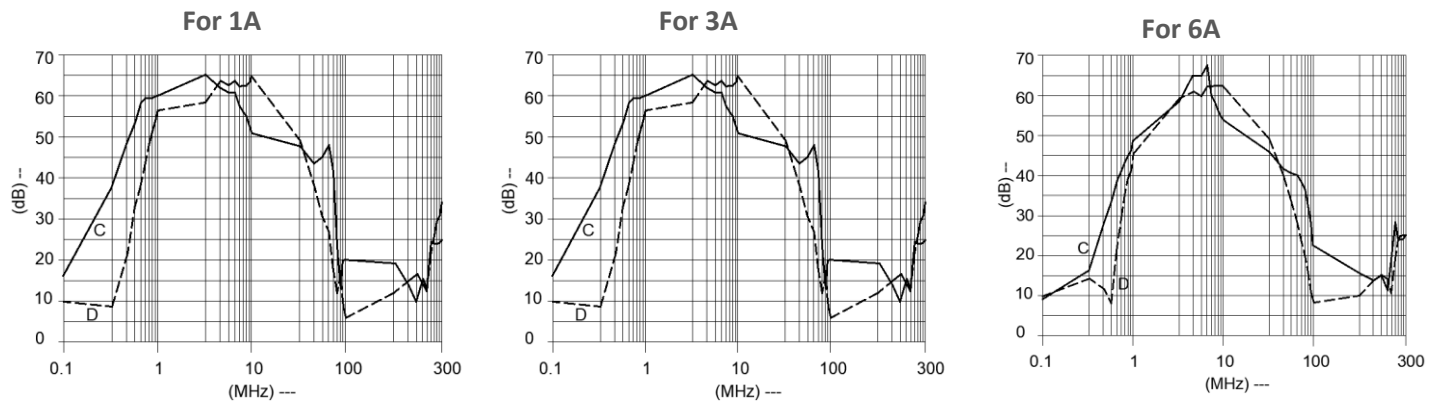
C = Common mode (asymmetrical) —————

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

#### For general application (Single Stage) (CKT 1)



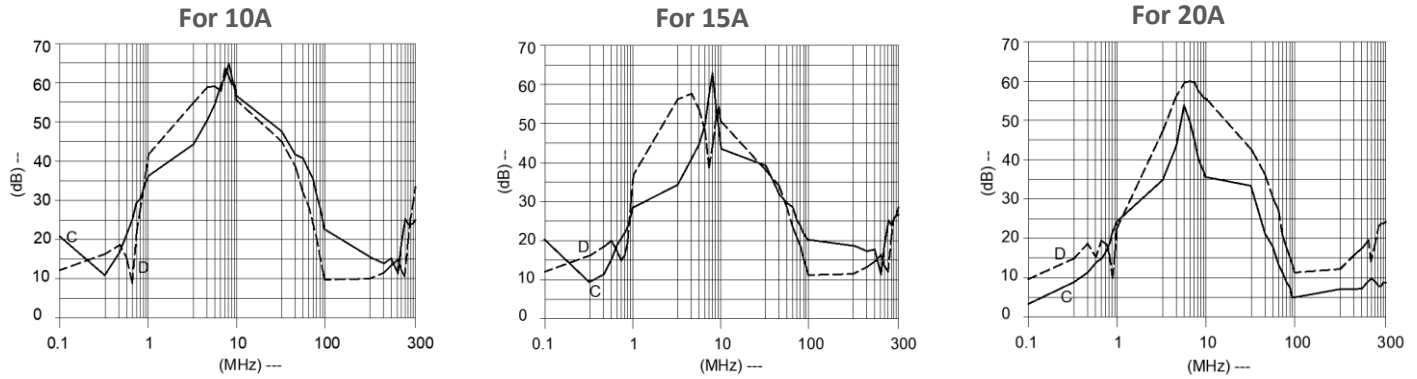
#### For general application (Double Stage) (CKT 2)








## El.italia EC-EE06 serie



### Filter Selection Table

Sr. No.	Elcom part codes (ordering code)	Rated Current rating (A) @40°C	Leakage current (mA) @250VAC	Terminals (X)	Approx. Weight (gm)	Attenuation
				Fast-on 		
1	EF-1B001B01G-E06	1	< 0.5	B	150	Standard
2	EF-1B003B01G-E06	3	< 0.5	B	150	Standard
3	EF-1B006B01G-E06	6	< 0.5	B	150	Standard
4	EF-1B010B01G-E06	10	< 0.5	B	150	Standard
5	EF-1B015B01G-E06	15	< 0.5	B	150	Standard
6	EF-1B020B01G-E06	20	< 0.5	B	150	Standard
7	EF-1B001B20G-E06	1	< 0.5	B	150	High
8	EF-1B003B20G-E06	3	< 0.5	B	150	High
9	EF-1B006B20G-E06	6	< 0.5	B	150	High
10	EF-1B010B20G-E06	10	< 0.5	B	150	High
11	EF-1B015B20G-E06	15	< 0.5	B	150	High
12	EF-1B020B20G-E06	20	< 0.5	B	150	High



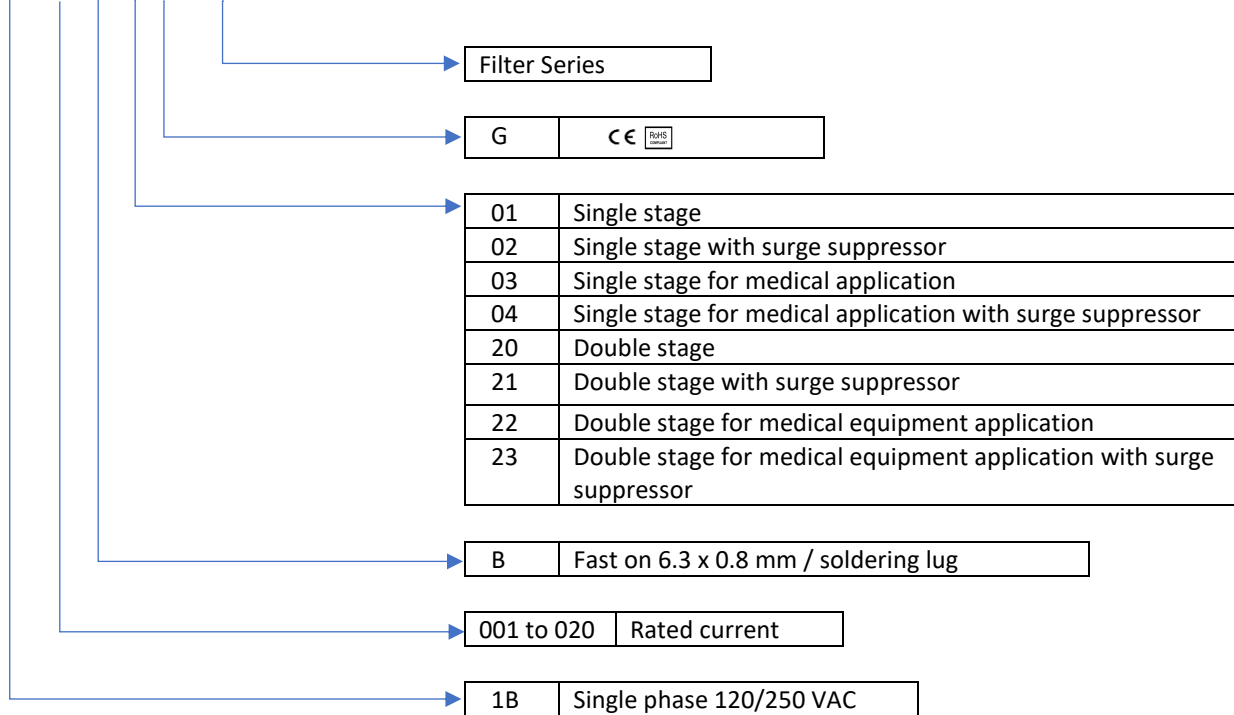
## Connection Type

*El.italia EC-EE06 serie*

Current Rating (A)	Fast -on terminal	Earthing
1A-20A	6.3 X 0.8mm	Fast-on

## Syntax

**EF - 1B CCC X YY G - E06**



- To compile complete part number, replace the 'X' with required I/O connection terminal. (e.g. EF-1B001E20G-E06).
- 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.