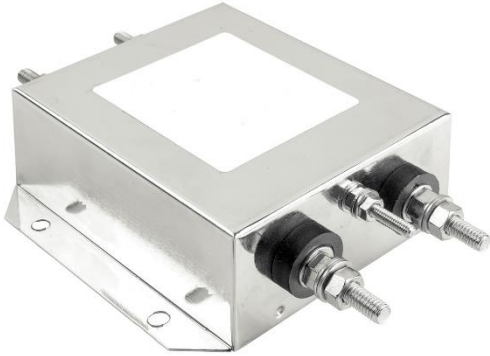


Datasheet | EC10 EP-612 Series



General Purpose AC EMI Filter

Approvals /Conformance



*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

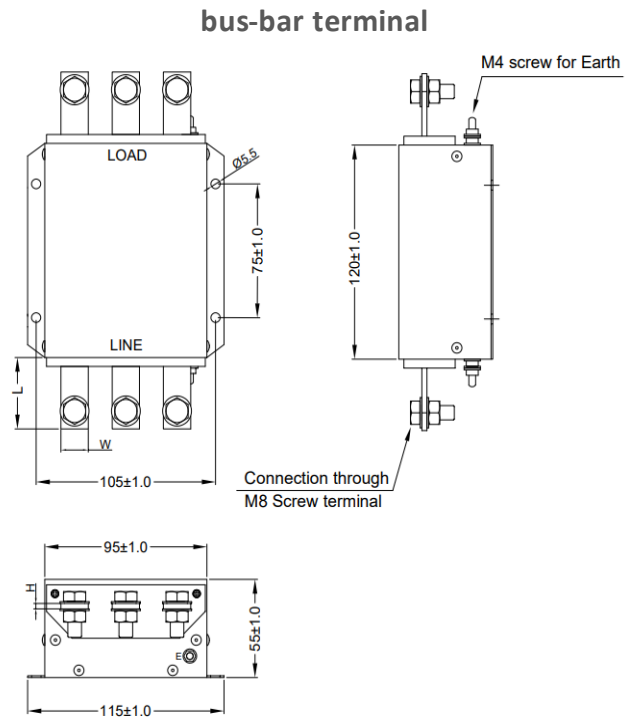
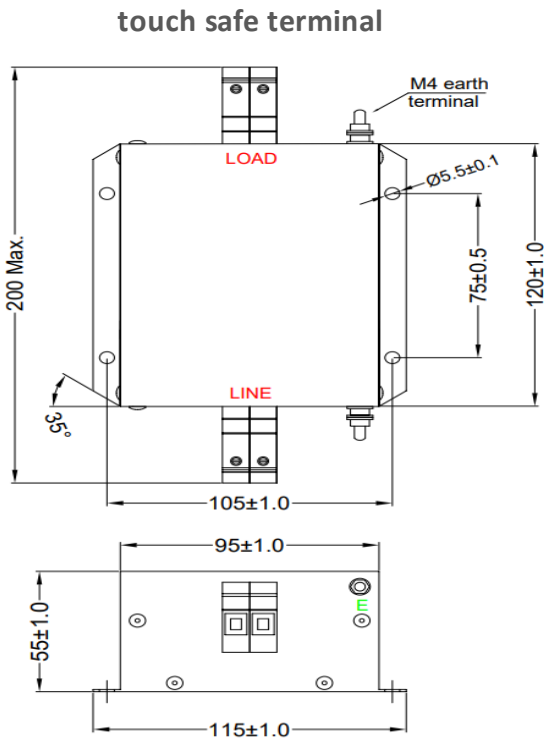
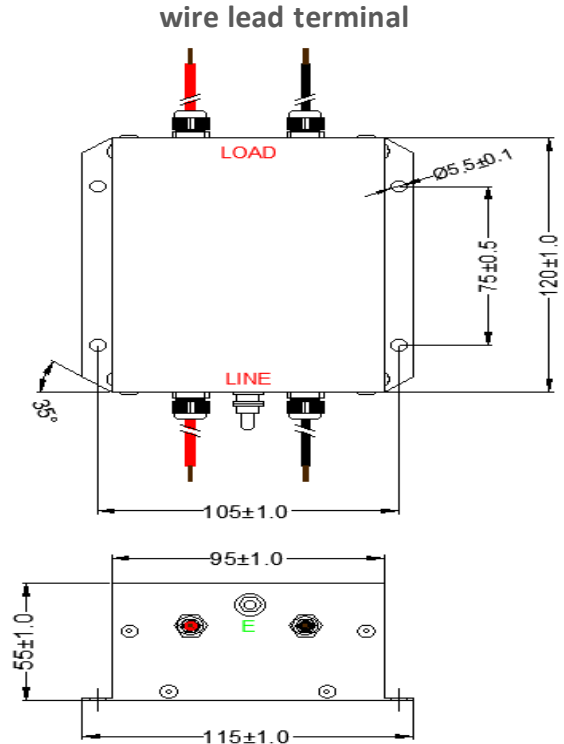
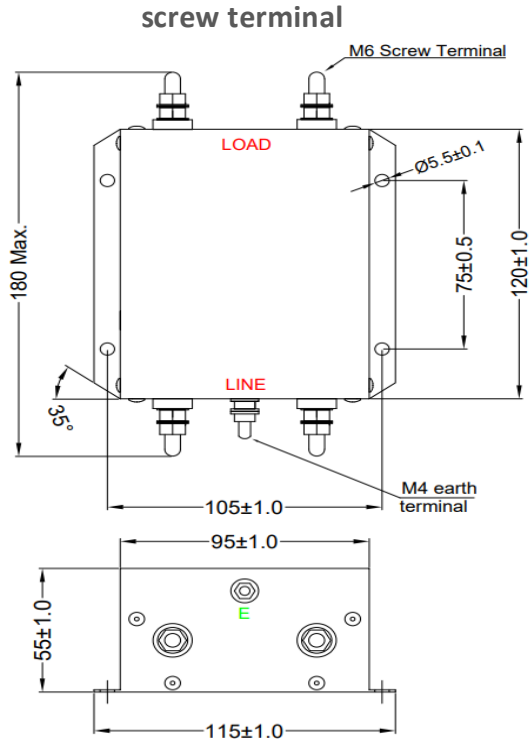
- | Medical equipment
- | Industrial application
- | Automotive application
- | Audio video products
- | Power supplies.
- | Electrical equipment application
- | UPS/inverter

Datasheet | EC10

EP-612 Series



Mechanical details



All dimensions in mm

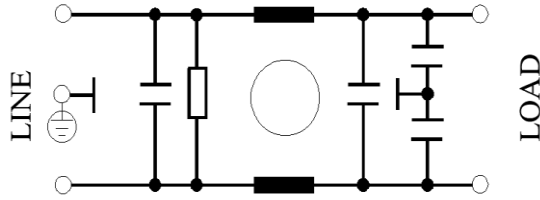
-Over 40A current rating touch will be unstackable

Datasheet | EC10 EP-612 Series

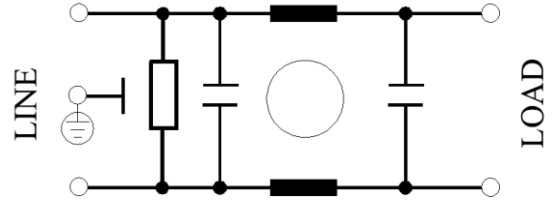


Electrical schematic for Single Stage Filter

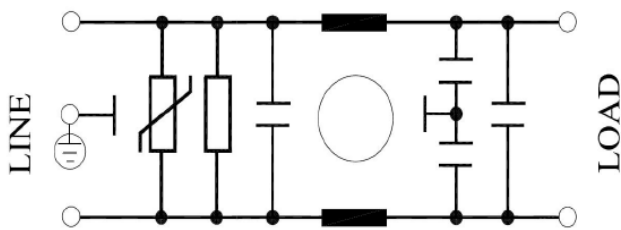
General purpose -



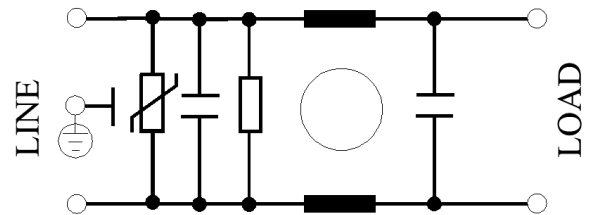
Medical equipment application -



General purpose with Surge Suppressor -

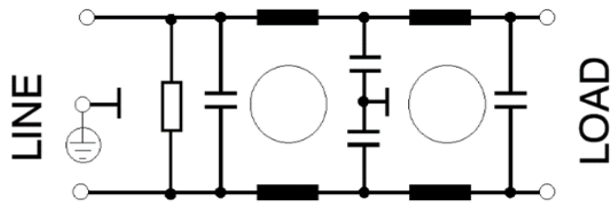


Medical equipment application with Surge Suppressor -

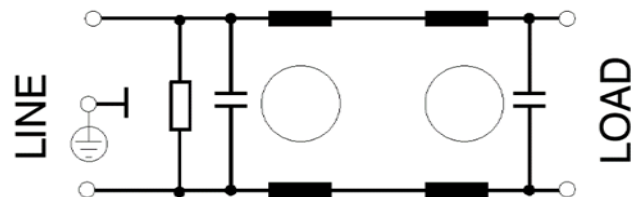


Electrical schematic for Double Stage Filter

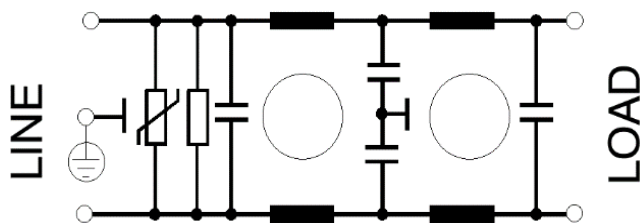
General purpose -



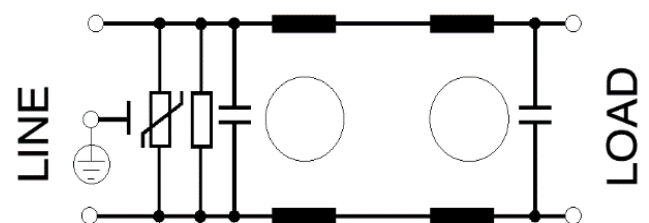
Medical equipment application -



General purpose with Surge Suppressor -



Medical equipment application with Surge Suppressor -

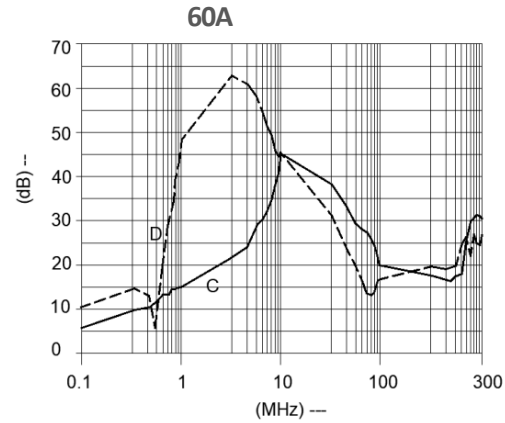
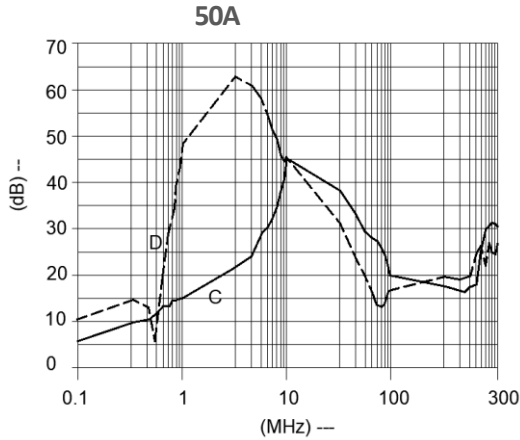


Filter attenuation Graph

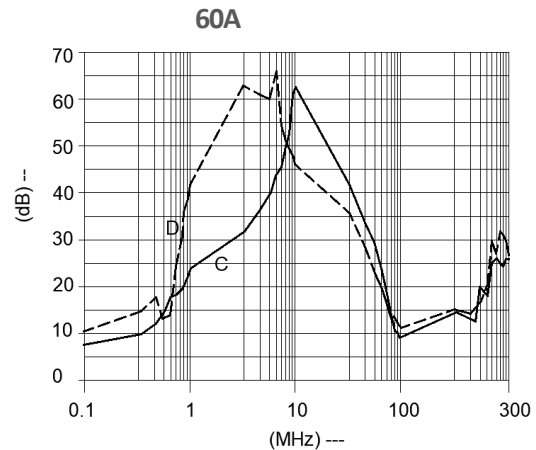
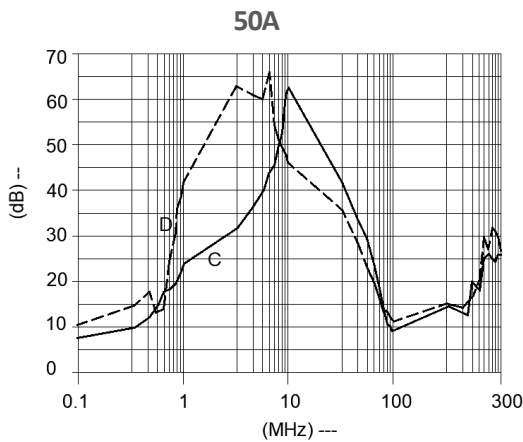
C = Common mode (asymmetrical) -----

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





For general application (Single Stage)



For general application (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 |
|---------|----------------------------------|--------------------------------|------------------------------|---|---|--|---|--|--|---------------------|-------------|
| | | | | 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 |

Datasheet | EC10

EP-612 Series



| | | | | | | | | | | | |
|----|------------------|----|---------|---|----|---|---|------|------|------|----------|
| 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.

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 |