

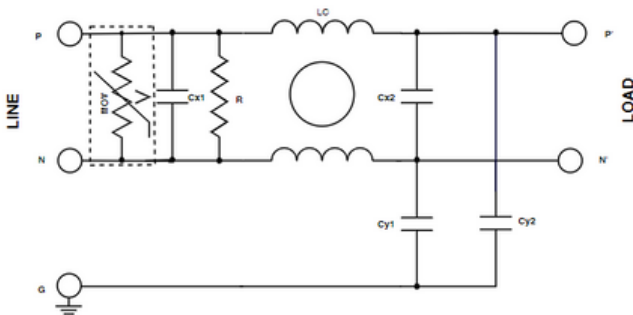


## DATASHEET

# SINGLE PHASE EMI FILTER - SMF2131

These series of filters designed for motor and power drive systems which can provide reliable attenuation performance and suppress conducted noise even when high interference level are present

### Type Circuit Diagram:



Surge option is available for both Standard and Medical versions .

### Approvals & Compliances



### Features:

- Rated Current up to 60A
- Filters offer an optimized filtering range for high performance AC & DC applications.
- Standard attenuation performance
- Series available for standard, Medical, surge Version
- Designed for easy and fast chassis mounting

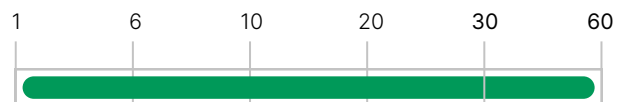
### Applications:

- Power Systems
- Consumer Goods
- Electronic Equipment
- Medical Equipment
- Frequency convertors
- Electronic Data processing Equipment
- UPS/Inverters

### Performance Indicator:

| Standard    | High        | Very High   |
|-------------|-------------|-------------|
| <div></div> | <div></div> | <div></div> |

### Rated Current (A):



## Technical Specifications:

|                                      |                                                                                                                   |
|--------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| Maximum Continuous Operating Voltage | : 250 VAC, 50/60Hz (UL Approval)<br>250VDC                                                                        |
| Operating Frequency                  | : DC to 400Hz                                                                                                     |
| Current ratings                      | : 1A to 60A @40°C                                                                                                 |
| High Potential test voltage          | : P to N 1414 VDC for 2 Sec (Except P type)<br>P+N to G 2250VDC for 2 Sec<br>P +N to G 1500VACfor 2 Sec (M Types) |
| Overload Capability                  | 4x rated current at switch on,<br>1.5 x rated current for 1 minute, once per hour                                 |
| Design Corresponding to              | : UL 60939-3, CSA 22.2 No.8-13 and IEC 60939-1&2                                                                  |
| Flammability corresponding to        | : UL 94 V-0                                                                                                       |
| Temperature range                    | : -25°C to +100°C                                                                                                 |
| Climatic Category                    | : 25/100/21                                                                                                       |
| Protection category                  | : IP20                                                                                                            |

## Ordering Information

| Standard Version |             |               |             |                         |                                    |                             |                                                                                       |                                                                                       |                |
|------------------|-------------|---------------|-------------|-------------------------|------------------------------------|-----------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|----------------|
| Model Number     | Part Number | Model Number  | Part Number | Current Rating @40°C(A) | Leakage Current @250 VAC/50Hz (mA) | Power loss @25°C / 50Hz (W) | Termination                                                                           |                                                                                       | Min.Weight (g) |
|                  |             |               |             |                         |                                    |                             |  |  |                |
| SMF2131-1-4      | E110728-1   | SMF2131P-1-4  | E115001-1   | 1                       | 0.37                               | 0.8                         | -4                                                                                    | -                                                                                     | 70             |
| SMF2131-3-4      | E110729-1   | SMF2131P-3-4  | E115002-1   | 3                       | 0.37                               | 1.1                         | -4                                                                                    | -                                                                                     | 70             |
| SMF2131-6-4      | E110730-1   | SMF2131P-6-4  | E115003-1   | 6                       | 0.37                               | 1.7                         | -4                                                                                    | -                                                                                     | 70             |
| SMF2131-10-4     | E110731-1   | SMF2131P-10-4 | E115004-1   | 10                      | 0.37                               | 2.5                         | -4                                                                                    | -                                                                                     | 90             |
| SMF2131-12-4     | E110732-1   | SMF2131P-12-4 | E115005-1   | 12                      | 0.37                               | 3.6                         | -4                                                                                    | -                                                                                     | 90             |
| SMF2131-16-4     | E110733-1   | SMF2131P-16-4 | E115006-1   | 16                      | 0.37                               | 2.5                         | -4                                                                                    | -                                                                                     | 150            |
| SMF2131-20-4     | E110734-1   | SMF2131P-20-4 | E115007-1   | 20                      | 0.37                               | 3.8                         | -4                                                                                    | -                                                                                     | 220            |
| SMF2131-30-1     | E110735-1   | SMF2131P-30-1 | E115008-1   | 30                      | 0.8                                | 6.3                         | -                                                                                     | -1 (M4)                                                                               | 480            |
| SMF2131-60-1     | E110736-1   | SMF2131P-60-1 | E115009-1   | 60                      | 0.8                                | 14.7                        | -                                                                                     | -1 (M6)                                                                               | 1200           |

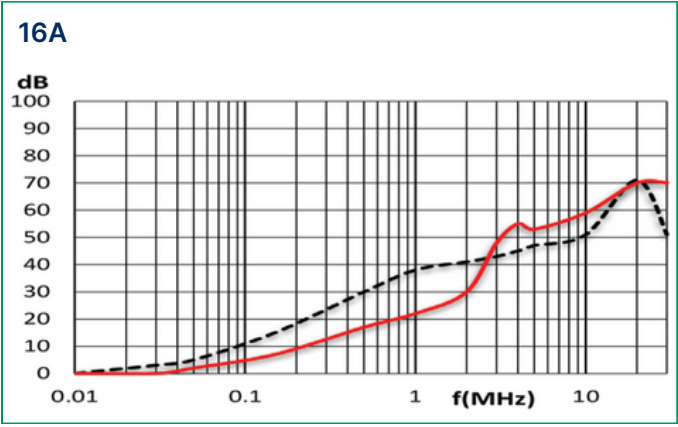
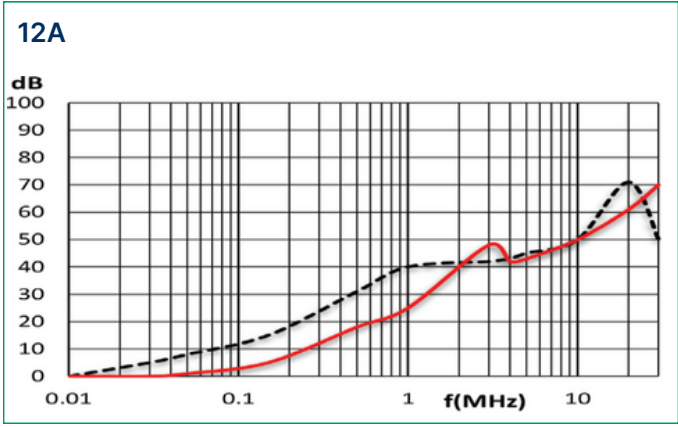
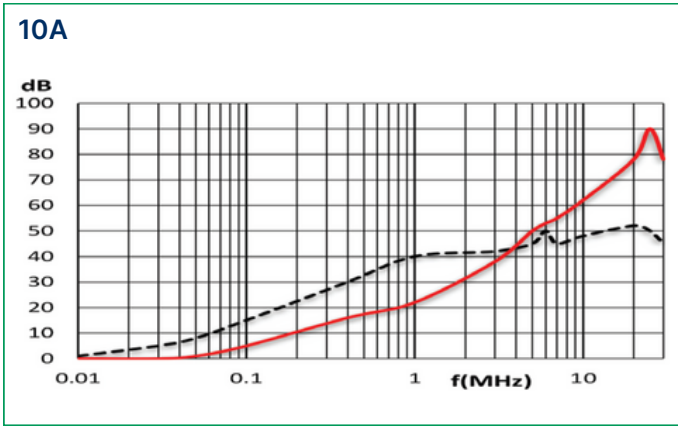
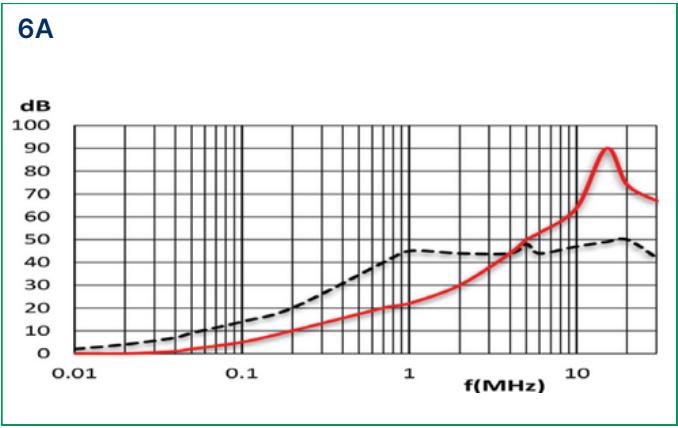
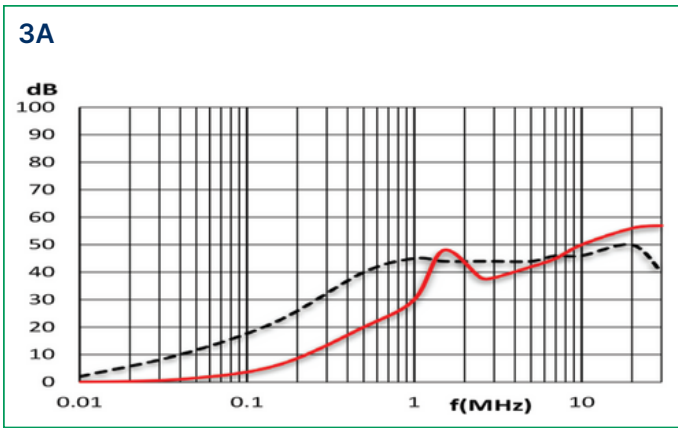
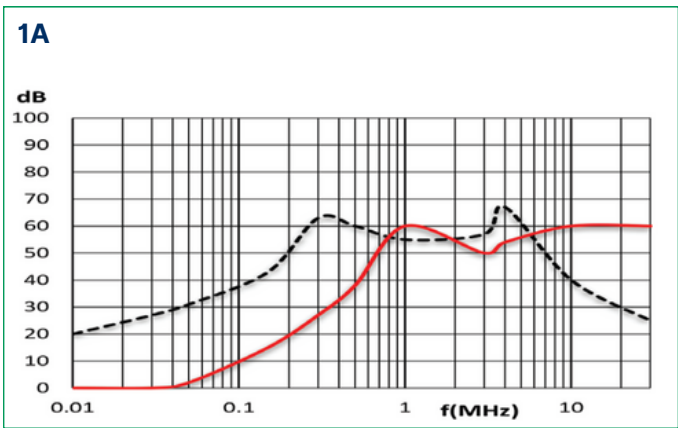
| Medical Version |             |                |             |                         |                                    |                             |                                                                                       |                                                                                       |                |
|-----------------|-------------|----------------|-------------|-------------------------|------------------------------------|-----------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|----------------|
| Model Number    | Part Number | Model Number   | Part Number | Current Rating @50°C(A) | Leakage Current @250 VAC/50Hz (mA) | Power loss @25°C / 50Hz (W) | Termination                                                                           |                                                                                       | Min.Weight (g) |
|                 |             |                |             |                         |                                    |                             |  |  |                |
| SMF2131M-1-4    | E110804-1   | SMF2131MP-1-4  | E115010-1   | 1                       | 0                                  | 0.8                         | -4                                                                                    | -                                                                                     | 70             |
| SMF2131M-3-4    | E110805-1   | SMF2131MP-3-4  | E115011-1   | 3                       | 0                                  | 1.1                         | -4                                                                                    | -                                                                                     | 70             |
| SMF2131M-6-4    | E110806-1   | SMF2131MP-6-4  | E115012-1   | 6                       | 0                                  | 1.7                         | -4                                                                                    | -                                                                                     | 70             |
| SMF2131M-10-4   | E110807-1   | SMF2131MP-10-4 | E115013-1   | 10                      | 0                                  | 2.5                         | -4                                                                                    | -                                                                                     | 90             |
| SMF2131M-12-4   | E110808-1   | SMF2131MP-12-4 | E115014-1   | 12                      | 0                                  | 3.6                         | -4                                                                                    | -                                                                                     | 90             |
| SMF2131M-16-4   | E110809-1   | SMF2131MP-16-4 | E115015-1   | 16                      | 0                                  | 2.5                         | -4                                                                                    | -                                                                                     | 150            |
| SMF2131M-20-4   | E110810-1   | SMF2131MP-20-4 | E115016-1   | 20                      | 0                                  | 3.8                         | -4                                                                                    | -                                                                                     | 220            |
| SMF2131M-30-1   | E110811-1   | SMF2131MP-30-1 | E115017-1   | 30                      | 0                                  | 6.3                         | -                                                                                     | -1 (M4)                                                                               | 480            |
| SMF2131M-60-1   | E110812-1   | SMF2131MP-60-1 | E115018-1   | 60                      | 0                                  | 14.7                        | -                                                                                     | -1 (M6)                                                                               | 1200           |

Note: For surge pulse protection, please add P(e.g. SMF2131P-10-04, SMF2131MP-20-4).

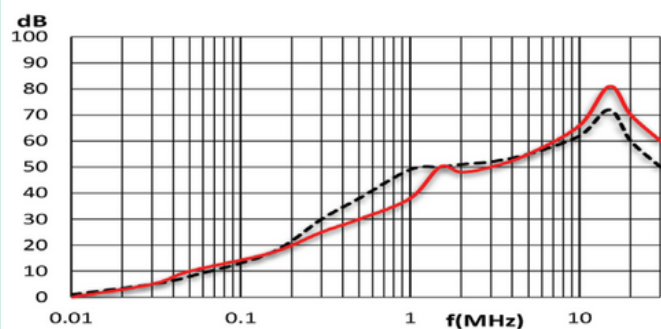
Insertion Loss :

..... Common mode      ——— Differential Mode  
Per CISPR 17; C=50Ω/50Ω D=50Ω/50Ω

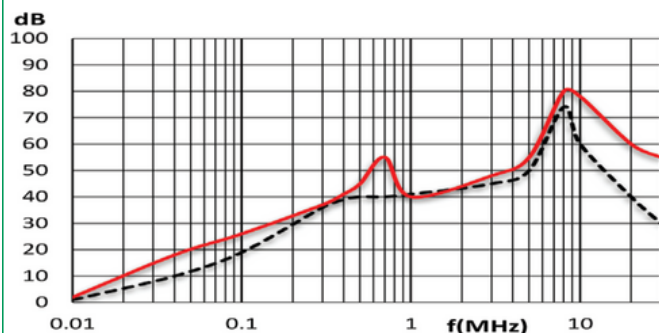
Standard Version



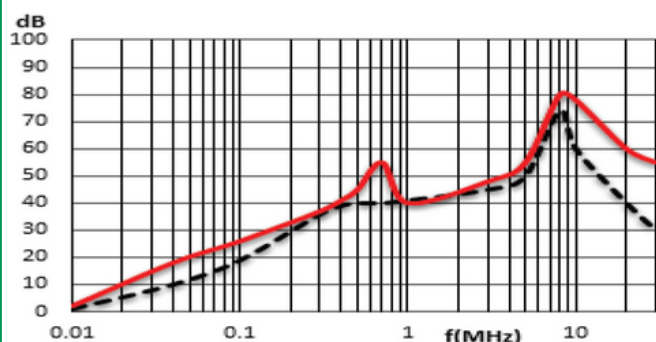
20A



30A

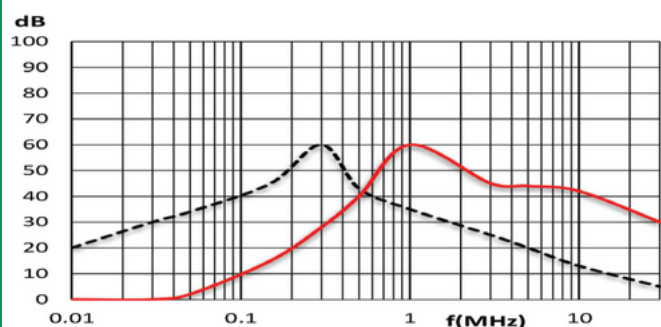


60A

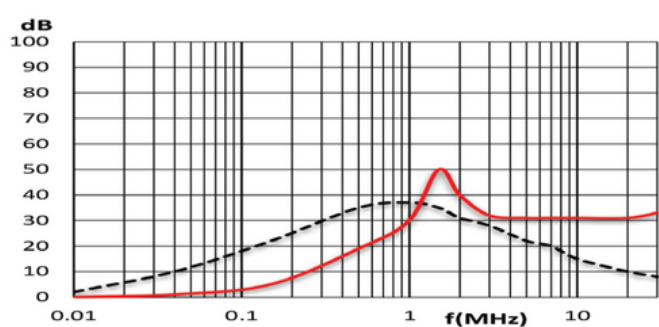


## Medical Version

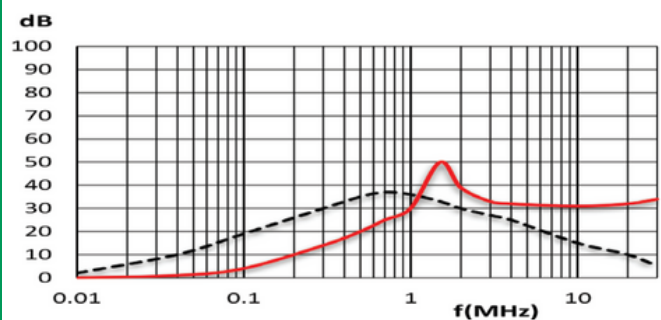
1A



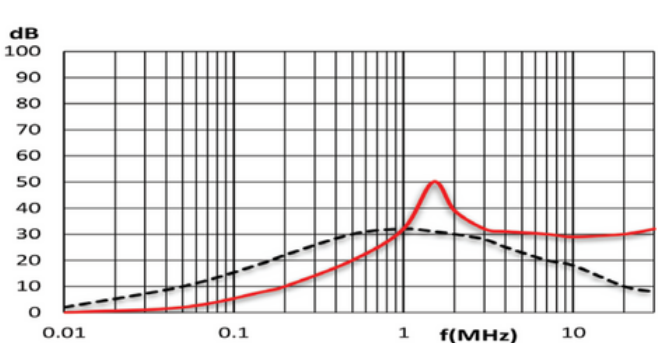
3A



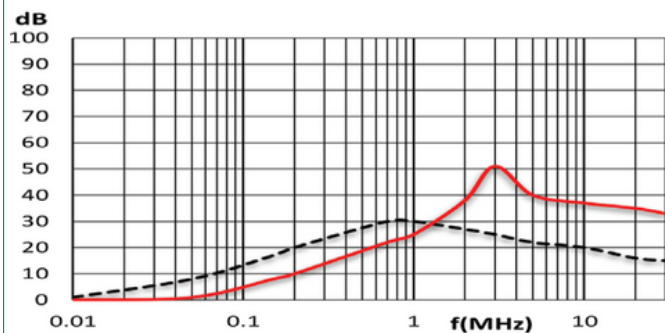
6A



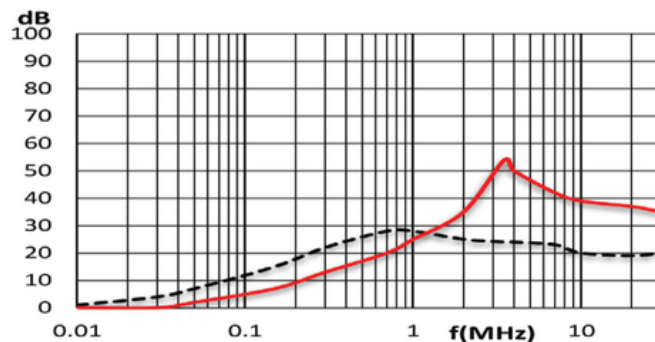
10A



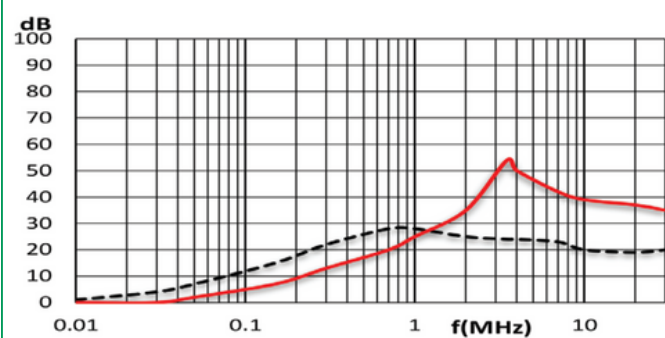
12A



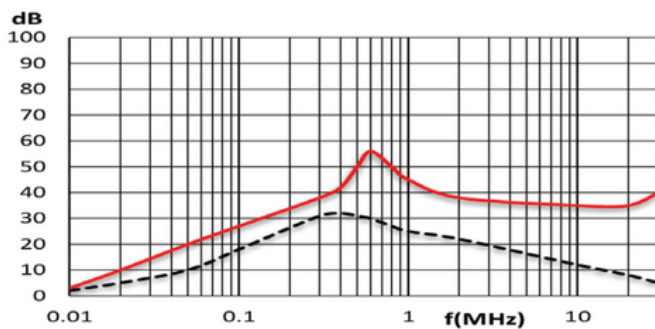
16A



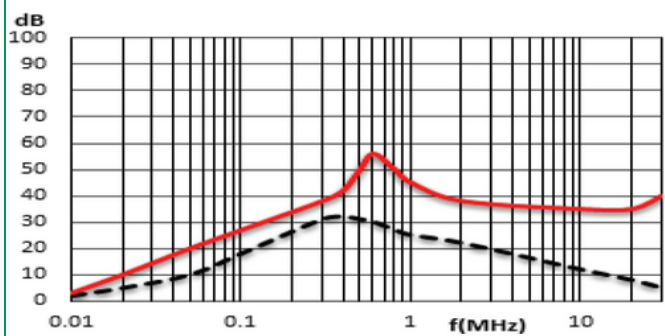
20A



30A

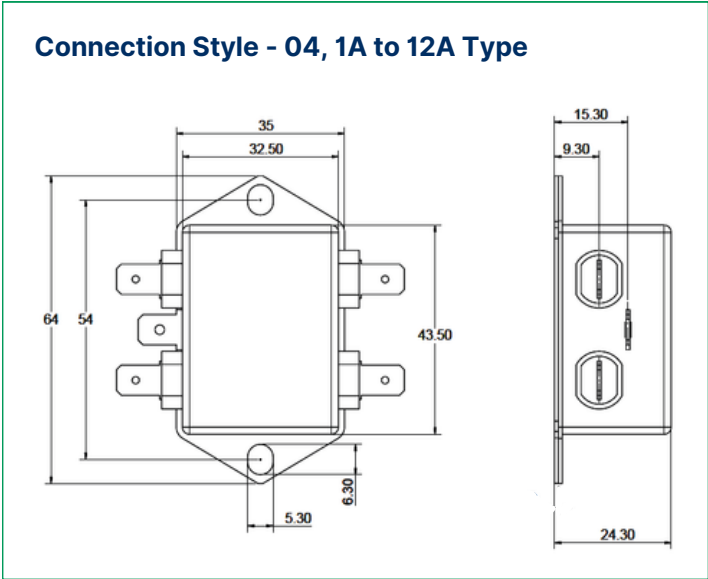


60A

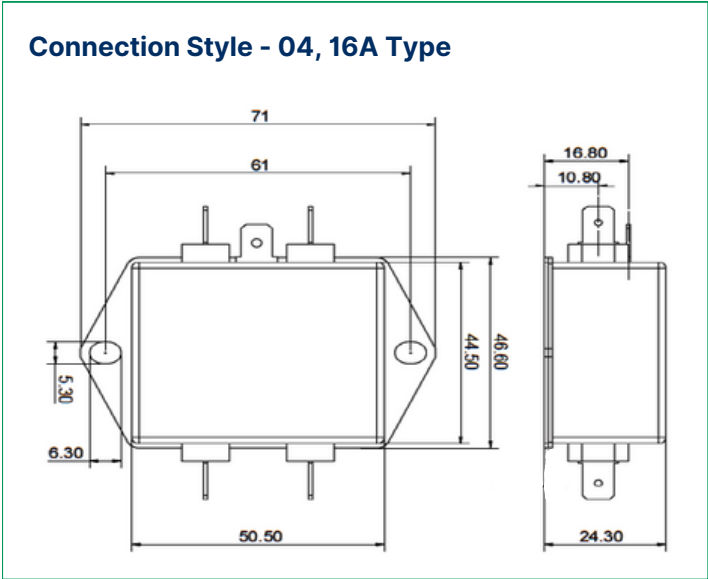


Mechanical Drawing:

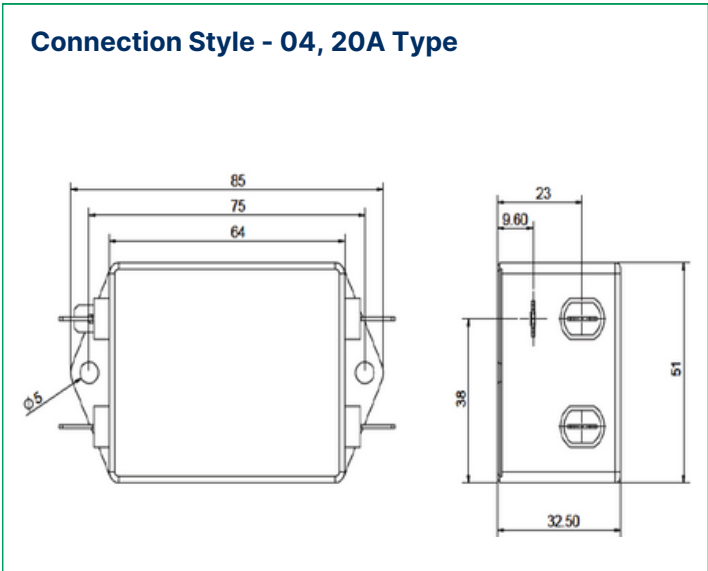
Connection Style - 04, 1A to 12A Type



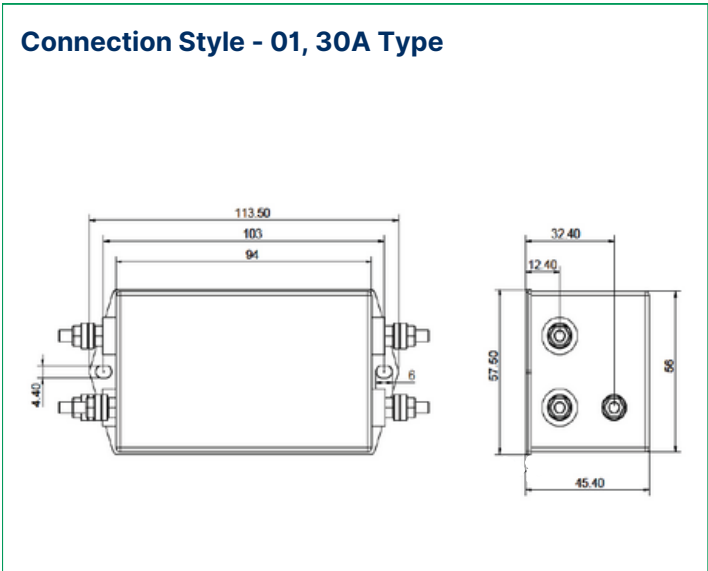
Connection Style - 04, 16A Type



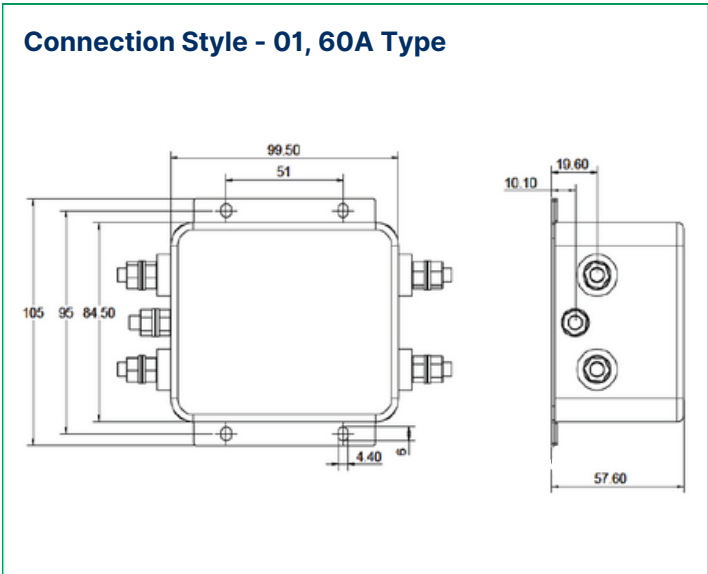
Connection Style - 04, 20A Type



Connection Style - 01, 30A Type



Connection Style - 01, 60A Type



All dimensions in mm; Tolerances according to ISO 2768-C