

## General-Purpose Filters SIFI-E Series

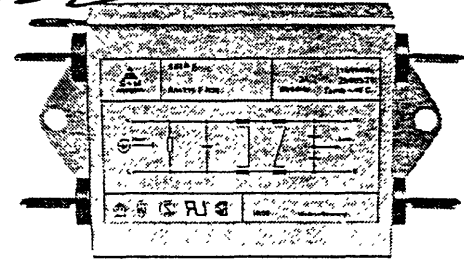
B84115

502-935  
503-046  
503-022

SIFI-E for very high attenuation  
Rated voltage 250 Vac, 50/60 Hz  
Rated current 3 A to 10 A

### Construction

- Two-line filter
- Aluminum case



### Features

- Compact design
- Very high insertion loss, even in the range below 100 kHz
- Low leakage current
- All relevant marks of conformity
- Cost-optimized construction

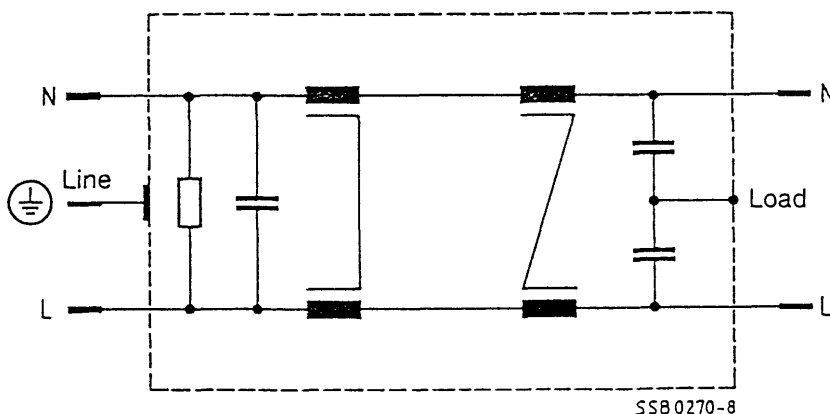
### Applications

- Switch-mode power supplies in
  - industrial electronics
  - telecommunications
  - data systems
  - medical engineering

### Terminals

Various terminal styles  
depending on case styles A, B, K

### Circuit diagram



Technical data

|                            |                                                                                              |
|----------------------------|----------------------------------------------------------------------------------------------|
| Rated voltage $V_R$        | 250 Vac, 50/60 Hz                                                                            |
| Rated current $I_R$        | Referred to 40 °C ambient temperature                                                        |
| Test voltage $V_P$         | 1414 Vdc, 2 s (line/line)<br>2700 Vdc, 2 s (lines/case)                                      |
| Leakage current $I_{leak}$ | < 0,5 mA at 250 Vac, 50 Hz (for $I_R = 3$ A)<br>< 3,5 mA at 250 Vac, 50 Hz (for $I_R > 6$ A) |
| Climatic category          | In accordance with IEC 68-1<br>25/085/21 (– 25 °C/+ 85 °C/21 days damp heat test)            |

Characteristics and ordering codes

| $I_R$ | $C_R$             | $L_R$           | Cas style | Appr. weight g | Ordering code | Approvals                                                                            |                                                                                      |                                                                                      |                                                                                      |                                                                                      |
|-------|-------------------|-----------------|-----------|----------------|---------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| A     |                   |                 |           |                |               |  |  |  |  |  |
| 3     | 0,47 µF (X2)<br>+ | 2 × 270 µH<br>+ | A         | 210            | B84115-E-A30  | x                                                                                    | x                                                                                    | x                                                                                    | x                                                                                    | x                                                                                    |
|       | 2 × 4700 pF (Y2)  | 2 × 16 mH       | B         | 210            | B84115-E-B30  | x                                                                                    | x                                                                                    | x                                                                                    | x                                                                                    | x                                                                                    |
|       |                   |                 | K         | 270            | B84115-E-K30  | x                                                                                    | x                                                                                    | x                                                                                    | x                                                                                    | x                                                                                    |
| 6     | 0,47 µF (X2)<br>+ | 2 × 100 µH<br>+ | A         | 510            | B84115-E-A60  | x                                                                                    | x                                                                                    | x                                                                                    | x                                                                                    | x                                                                                    |
|       | 2 × 22 nF (Y2)    | 2 × 4,7 mH      | B         | 510            | B84115-E-B60  | x                                                                                    | x                                                                                    | x                                                                                    | x                                                                                    | x                                                                                    |
|       |                   |                 | K         | 510            | B84115-E-K60  | x                                                                                    | x                                                                                    | x                                                                                    | x                                                                                    | x                                                                                    |
| 10    | 0,47 µF (X2)<br>+ | 2 × 47 µH<br>+  | A         | 690            | B84115-E-A110 | x                                                                                    | x                                                                                    | x                                                                                    | x                                                                                    | x                                                                                    |
|       | 2 × 22 nF (Y2)    | 2 × 3,6 mH      | B         | 690            | B84115-E-B110 | x                                                                                    | x                                                                                    | x                                                                                    | x                                                                                    | x                                                                                    |

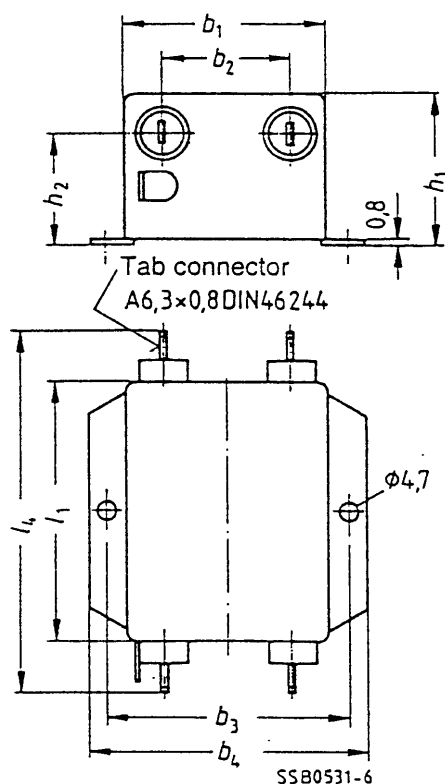
x = mark of conformity granted

Case styles and dimensions

| Case style | Ordering code | Dimensions in mm    |       |       |       |       |       |       |       |       |       |
|------------|---------------|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|            |               | $b_1$               | $b_2$ | $b_3$ | $b_4$ | $l_1$ | $l_2$ | $l_3$ | $l_4$ | $h_1$ | $h_2$ |
| A          | B84115-E-A30  | 50,8                | 31,5  | 60,4  | 70    | 63,5  | —     | —     | 89,5  | 38,1  | 28    |
| B          | B84115-E-B30  | 50,8                | 31,5  | —     | —     | 63,5  | 74,7  | 84,5  | 89,5  | 38,1  | 28    |
| K          | B84115-E-K30  | 50,8                | —     | —     | —     | 79,5  | —     | —     | —     | 38    | —     |
| A          | B84115-E-A60  | See outline drawing |       |       |       |       |       |       |       |       |       |
| B          | B84115-E-B60  | See outline drawing |       |       |       |       |       |       |       |       |       |
| K          | B84115-E-K60  | See outline drawing |       |       |       |       |       |       |       |       |       |
| A          | B84115-E-A110 | See outline drawing |       |       |       |       |       |       |       |       |       |
| B          | B84115-E-B110 | See outline drawing |       |       |       |       |       |       |       |       |       |

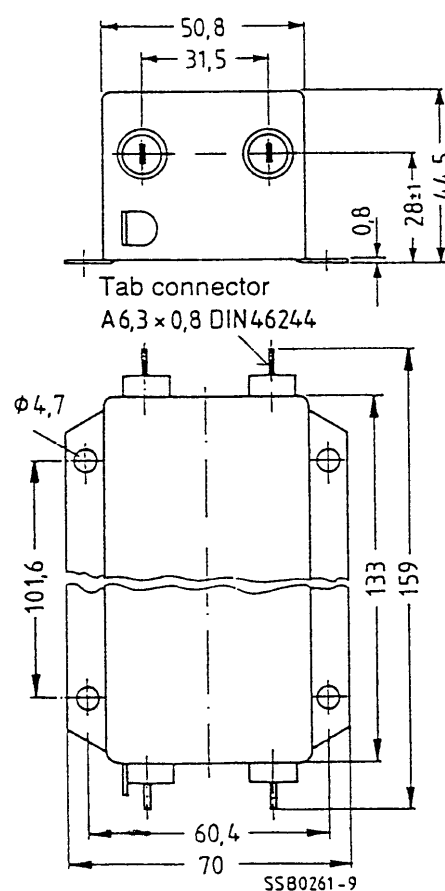
Case style A

B84115-E-A30



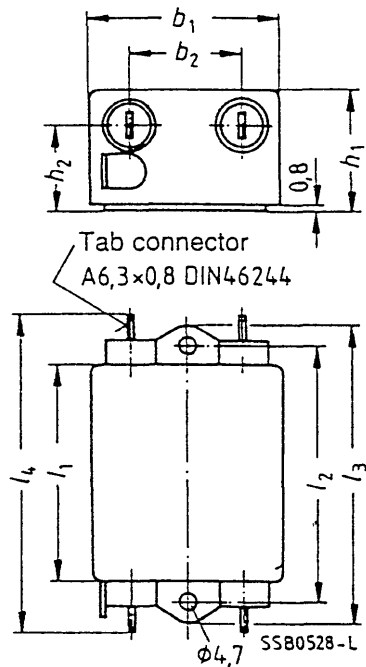
Case style A

B84115-E-A60  
B84115-E-A110



Case style B

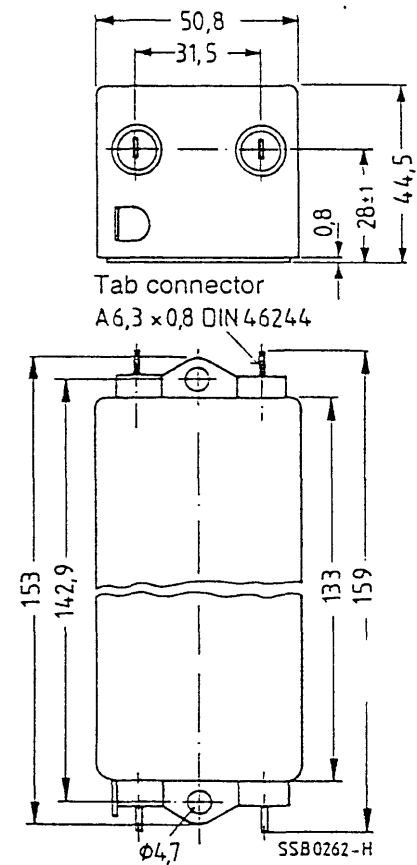
B84115-E-B30



Case style B

B84115-E-B60

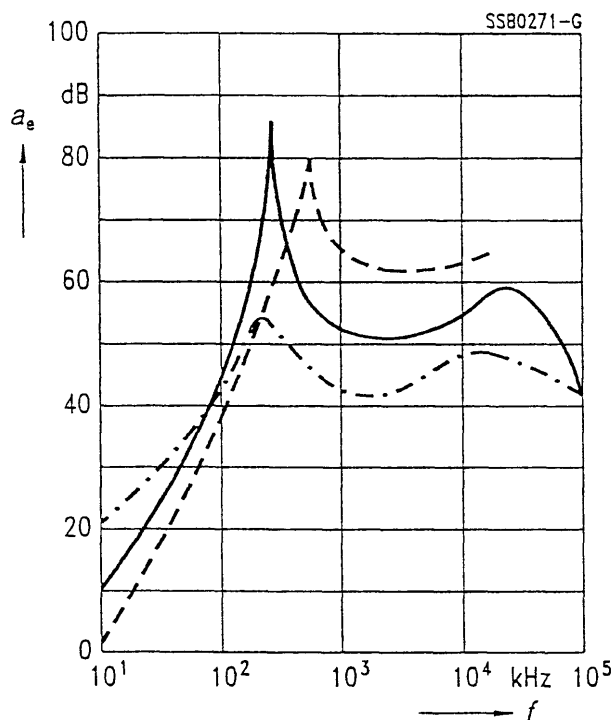
B84115-E-B110



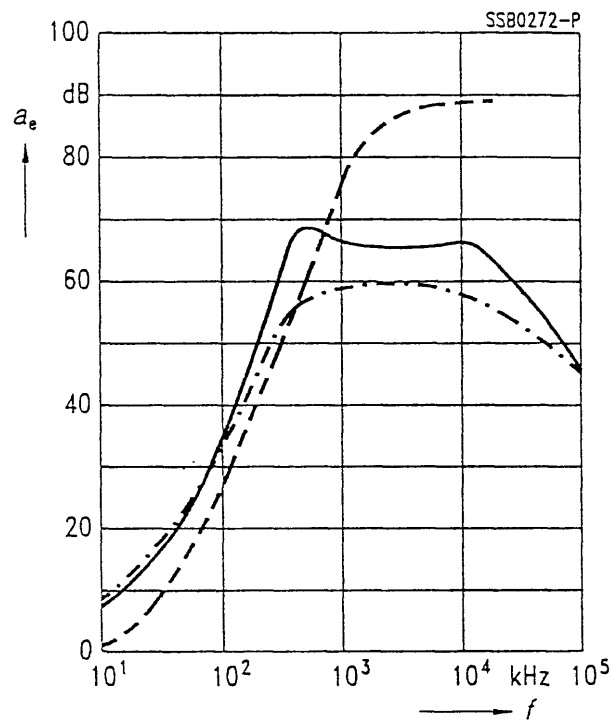
Insertion loss (typical values at  $Z = 50 \Omega$ )

- unsymmetrical, adjacent branches terminated
- · - · - · - · - asymmetrical, all branches in parallel (common mode)
- - - - - symmetrical (differential mode)

B84115-E-\*30



B84115-E-\*60



B84115-E-\*110

