# EMC filters

2-line filters
for installations and systems
Rated current 10 to 25 A

**Series/Type:** **B84299K0021, K0026**
Date: January 2006

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**Power line filters for 1-phase systems**
**with additional VHF suppression**
**Rated voltage 250 V DC/AC, 50/60 Hz**
**Rated current 10 to 25 A**




### Construction

- 2-line filter
- Metal case
- Screw-type cable fitting for strain relief on line side, edge protector on load side
- Feed-through capacitors

### Features

- High insertion loss up to the GHz range
- UL and cUL approval

### Applications

- Power supplies for medical equipment and industrial installations
- DC applications

### Terminals

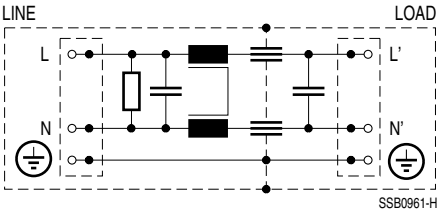
- Finger-safe terminal blocks inside case

### Marking

Marking on component:
Manufacturer's logo, ordering code, rated voltage, rated current, date code

Minimum marking on packaging:
Manufacturer's logo, ordering code

### Circuit diagram




Typical circuit taking the example of B84299K0021E000

### Technical data and measuring conditions

| | |
|---|---|
| Rated voltage $V_R$ | 250 V DC/AC, 50/60 Hz |
| Rated current $I_R$ | Referred to 40 °C ambient temperature |
| Test voltage $V_{test}$ | 1414 V DC, 2 s (line/line)<br>2700 V DC, 2 s (lines/case) |
| Leakage current $I_{leak}$ | At 230 V AC, 50 Hz |
| Climatic category (IEC 60068-1) | 25/085/21 (–25 °C/+85 °C/21 days damp heat test) |
| Approvals | UL 1283, CSA C22.2 No.8 |

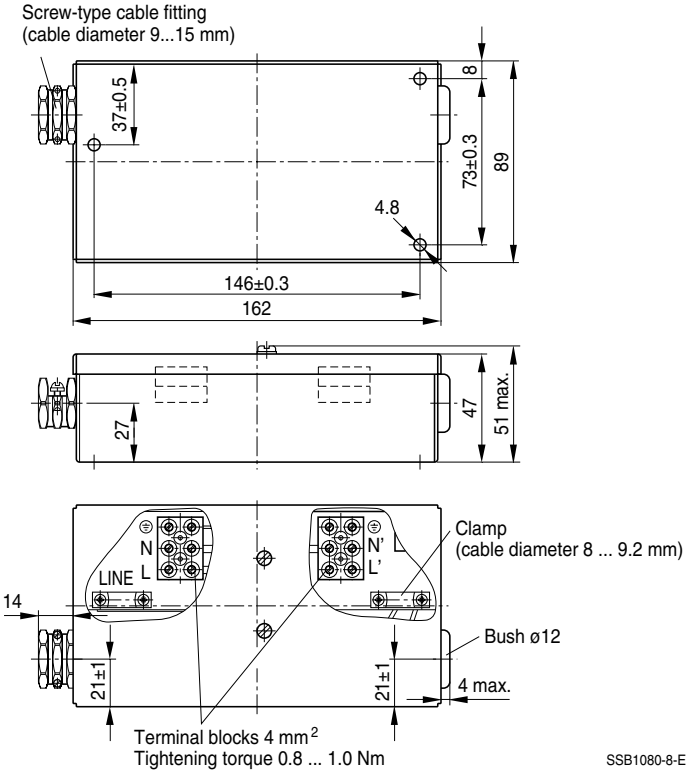
### Characteristics and ordering codes

| $V_R$ AC/DC V | $I_R$ A | Terminal cross section $mm^2$ | Approx. weight kg | $I_{leak}$ mA | Ordering code | Approvals | |
|---|---|---|---|---|---|---|---|
| | | | | | | | |
| 250 | 10 | 4 | 1 | < 3.5 | B84299K0021E000 | × | × |
| | 25 | 4 | 1.8 | < 3.5 | B84299K0026 | – | – |

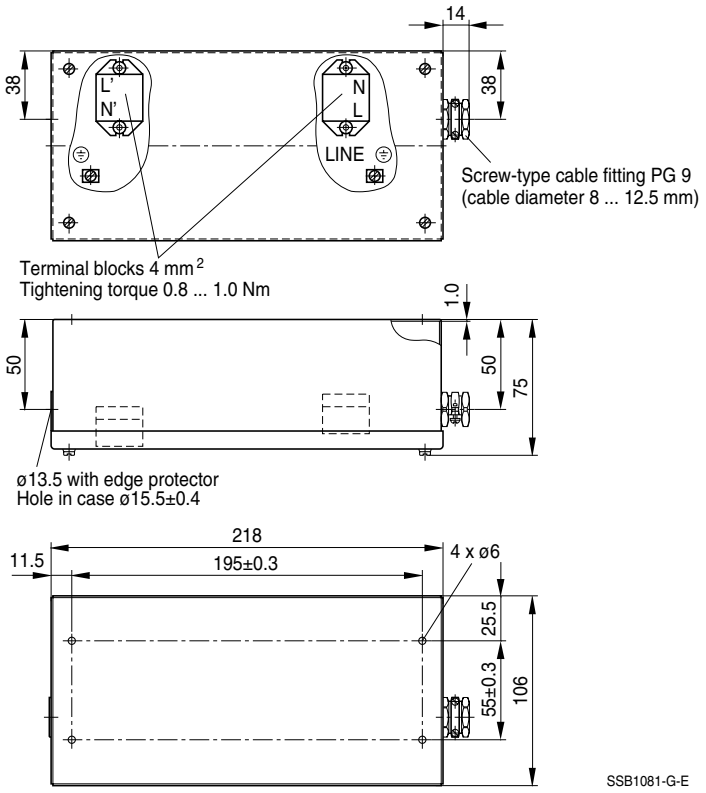
× = approval granted

## Dimensional drawings

### B84299K0021E000 (10 A)



**B84299K0026 (25 A)**



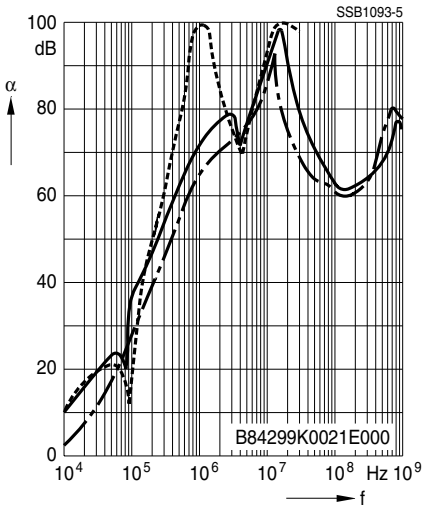
**Insertion loss** (typical values at Z = 50 Ω)

——————— unsymmetrical, adjacent branches terminated

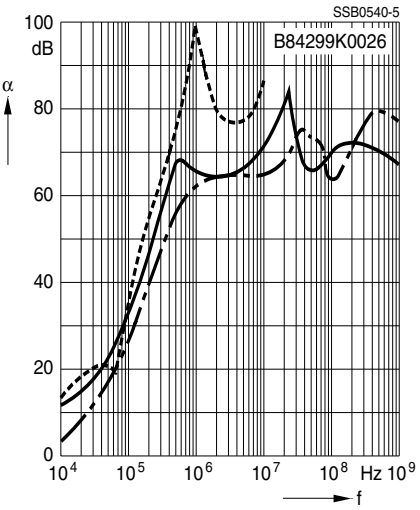
– · – · – · – · – · – common mode, all branches in parallel (asymmetrical)

– – – – – – – – – differential mode (symmetrical)

Filters for 10 A




Filters for 25 A



### Important information

Please read all safety and warning notes carefully before installing the EMC filter and putting it into operation (see ⚠). The same applies to the warning signs on the filter. Please ensure that the signs are not removed nor their legibility impaired by external influences.

Death, serious bodily injury and substantial material damage to equipment may occur if the appropriate safety measures are not carried out or the warnings in the text are not observed.

### Using according to the terms

The EMC filters may be used only for their intended application within the specified values in low-voltage networks in compliance with the instructions given in the data sheets and the data book. The conditions at the place of application must comply with all specifications for the filter used.

### ⚠ Warnings

- It shall be ensured that only qualified persons (electricity specialists) are engaged on work such as planning, assembly, installation, operation, repair and maintenance. They must be provided with the corresponding documentation.
- Danger of electric shock. EMC filters contain components that store an electric charge. Dangerous voltages can continue to exist at the filter terminals for longer than five minutes even after the power has been switched off.
- The protective earth connections shall be the first to be made when the EMC filter is installed and the last to be disconnected. Depending on the magnitude of the leakage currents, the particular specifications for making the protective-earth connection must be observed.
- Impermissible overloading of the EMC filter, such as impermissible voltages at higher frequencies that may cause resonances etc. can lead to destruction of the filter housing.
- EMC filters must be protected in the application against impermissible exceeding of the rated currents by suitable overcurrent protective.

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