



EMC filters

2-line filters

SIFI-G for enhanced insertion loss

Rated current 3 to 36 A


Series/Type: **B84112G**
Date: January 2006

Power line filters for 1-phase systems
Rated voltage 250 V DC/AC, 50/60 Hz
Rated current 3 to 36 A

Construction

- 2-line filters
- Metal case
- Polyurethane potting (UL 94 V-0)

Features

- Compact design
- Optimized leakage current
- Cost-optimized construction
- ENEC10, UL and cUL approval 

Applications

- Switch-mode power supplies in
 - industrial electronics
 - telecommunications
 - data systems
 - medical equipment
- DC applications

Case styles and terminal styles

- | | |
|--------------|---|
| Case style B | Tab connectors on face ends,
fixing lugs on face ends (3 ... 16 A) |
| Case style G | Screw thread M5,
fixing lugs on face ends (20 ... 36 A) |

Marking

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

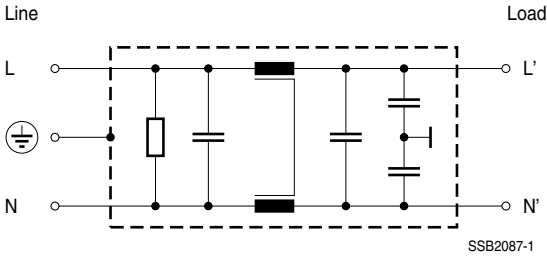
Minimum marking on packaging:
 Manufacturer's logo, ordering code



Case style B



Case style G

Circuit diagram

Technical data and measuring conditions

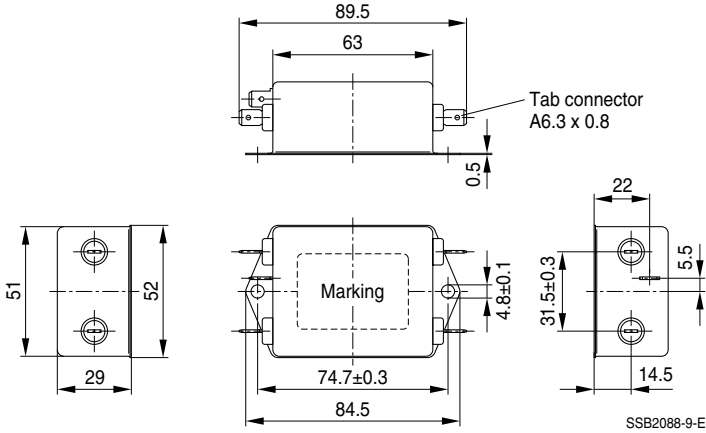
Rated voltage V_R	250 V DC/AC, 50/60 Hz
Rated current I_R	Referred to 40 °C ambient temperature
Test voltage V_{test}	1414 V DC, 2 s (line/line) 2700 V DC, 2 s (lines/case)
Leakage current I_{leak}	At 230 V AC, 50 Hz
Climatic category (IEC 60068-1)	25/100/21 (-25 °C/+100 °C/21 days damp heat test)
Approvals	EN 133200, UL 1283, CSA C22.2 No.8

Characteristics and ordering codes

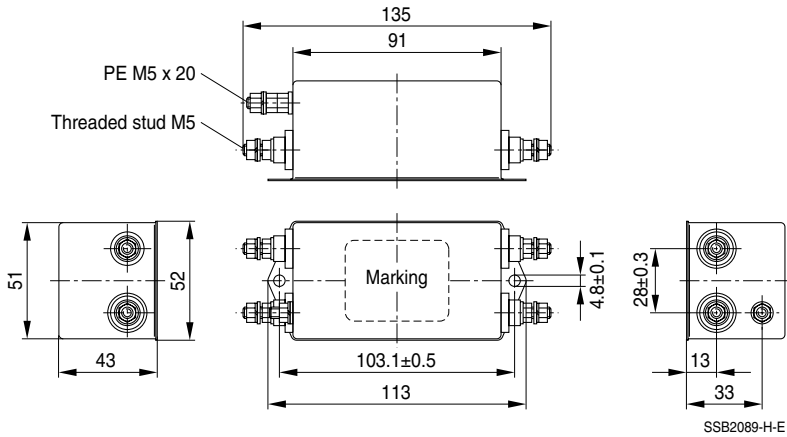
V_R AC/DC V	I_R A	C_R	L_R mH	I_{leak} mA	Case style	Approx. weight g	Ordering code
250	3	2 × 0.22 μF (X2) + 2 × 4700 pF (Y2)	2 × 10	< 0.5	B	200	B84112G0000B030
	6	2 × 0.47 μF (X2) + 2 × 4700 pF (Y2)	2 × 3.3	< 0.5	B	200	B84112G0000B060
	10	2 × 0.68 μF (X2) + 2 × 4700 pF (Y2)	2 × 1.8	< 0.5	B	200	B84112G0000B110
	16	2 × 0.47 μF (X2) + 2 × 4700 pF (Y2)	2 × 1.8	< 0.5	B	210	B84112G0000B116
	20	2 × 1.0 μF (X2) + 2 × 4700 pF (Y2)	2 × 1.8	< 0.5	G	440	B84112G0000G120
	25	2 × 1.0 μF (X2) + 2 × 4700 pF (Y2)	2 × 1.6	< 0.5	G	440	B84112G0000G125
	36	2 × 1.5 μF (X2) + 2 × 4700 pF (Y2)	2 × 0.75	< 0.5	G	470	B84112G0000G136

Dimensional drawings

Case style B



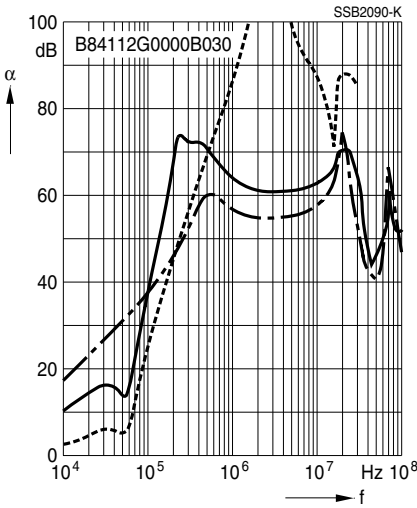
Case style G



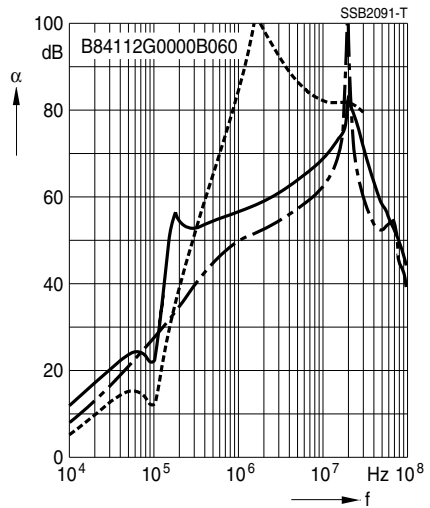
Insertion loss (typical values at $Z = 50 \Omega$)

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

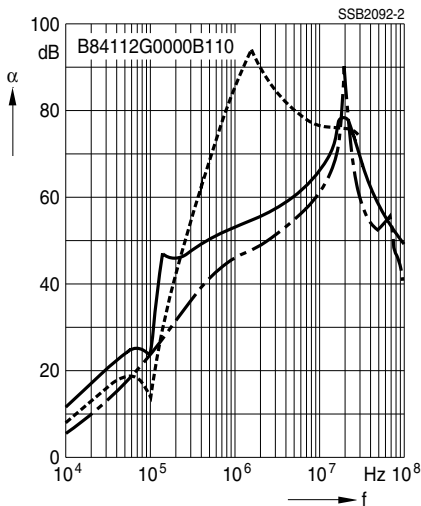
Filters for 3 A



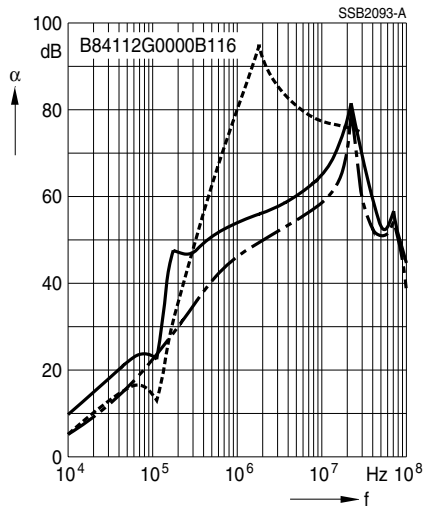
Filters for 6 A



Filters for 10 A



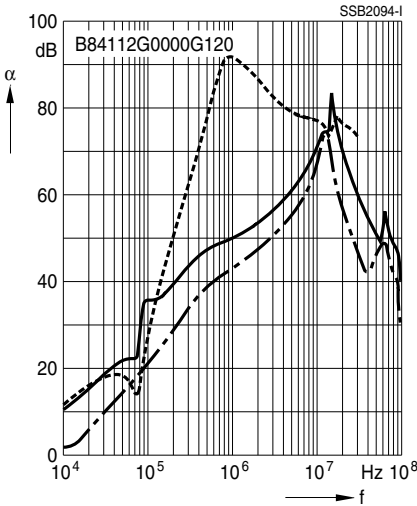
Filters for 16 A



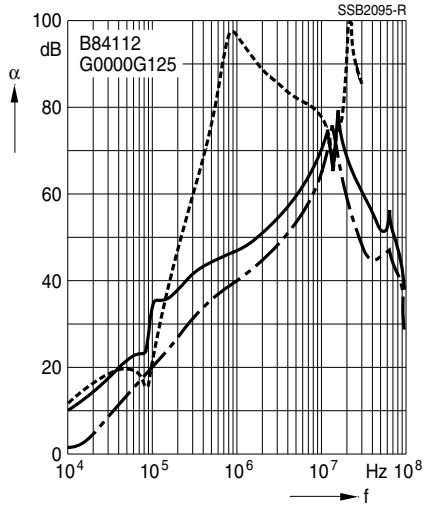
Insertion loss (typical values at $Z = 50 \Omega$)

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

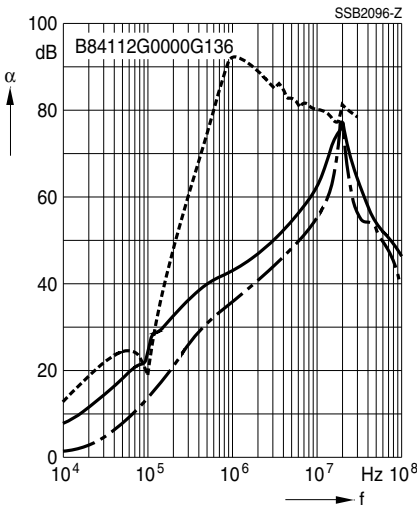
Filters for 20 A




Filters for 25 A



Filters for 36 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.

The following applies to all products named in this publication:

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