

Power line filters for three-phase systems

Rated voltage 440/250 V~, 50/60 Hz

Rated current 8 A to 80 A

Construction

- Three-line filter
- Metal case

Features

- Very high insertion loss
due to two-stage construction
- Low leakage current
- Easy to install
- Degree of protection: IP 20¹⁾
- Design complies with
EN 133200, UL 1283, CSA 22.2 No.8 1986
- Optimized for long motor cables and
operation under full load

Applications

- Frequency converters for motor drives, e.g.
 - elevators
 - pumps
 - traction systems
 - conveyor systems
 - HVAC systems (heating, ventilation and air conditioning)
- Wind farms
- Power supplies

Terminals

- Safe-to-touch terminal blocks

Marking

Marking on component:

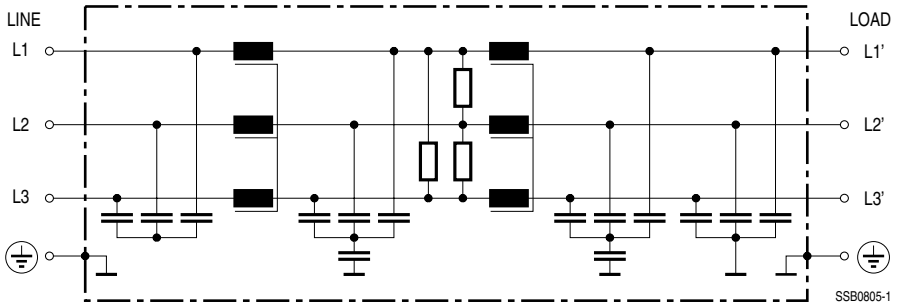
Manufacturer's logo, ordering code,
rated current, rated voltage,
rated temperature, climatic category, date code

Minimum marking on packaging:

Manufacturer's logo, ordering code



1) In accordance with IEC 60529:1989; EN 60529:1991; DIN VDE 0470-1

Typical circuit diagram

Technical data

Rated voltage V_R	440/250 V~, 50/60 Hz
Rated current I_R	Referred to 40 °C ambient temperature
Test voltage V_P	1770 V~, 2 s (line/line) 2700 V~, 2 s (lines/case)
Overload capability	1,5 · I_R for 3 min per hour 2,5 · I_R for 30 s per hour
Leakage current I_{leak}	at 230 V~, 50 Hz
Climatic category	25/100/21 (– 25 °C/+ 100 °C/21 days damp heat test) in accordance with EN 60068-1

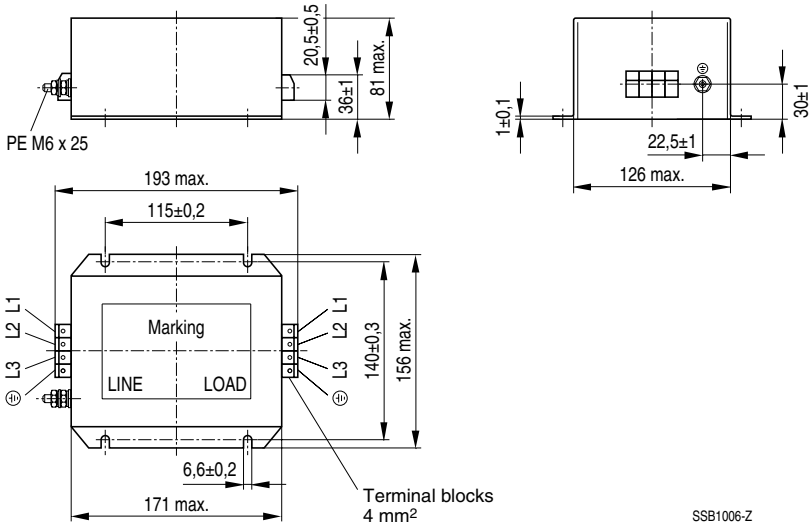
Characteristics and ordering codes

I_R	Terminal cross section mm ²	I_{leak} mA	R_{typ} mΩ	Approx. weight kg	Ordering code
8	4	< 3,5	80	3,8	B84143-B8-R
12	4	< 3,5	40	3,8	B84143-B12-R
16	4	< 3,5	25	3,8	B84143-B16-R
25	10	< 3,5	10	5,7	B84143-B25-R
36	10	< 3,5	5,0	5,7	B84143-B36-R
50	10	< 6	3,5	5,7	B84143-B50-R
80	25	< 6	2,0	16	B84143-B80-R

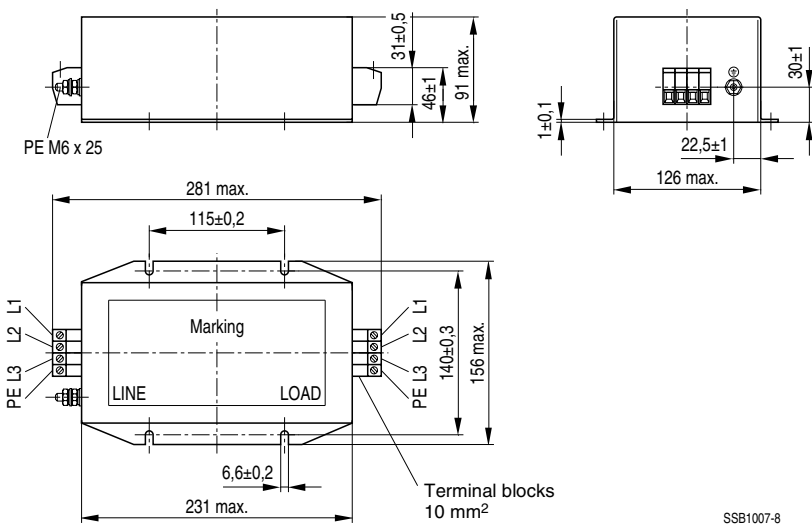
For higher currents refer to B84143-B**-R110, [page 246](#).

Dimensional drawings

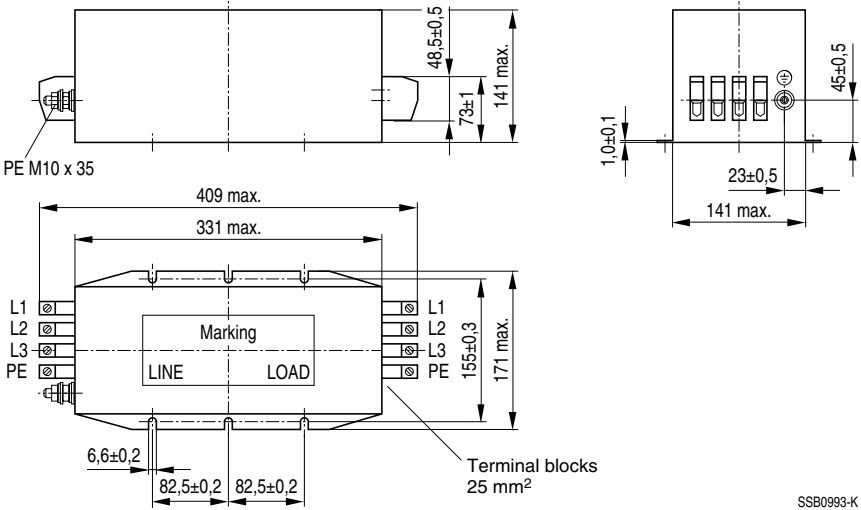
B84143-B8-R ... B84143-B16-R



B84143-B25-R ... B84143-B50-R



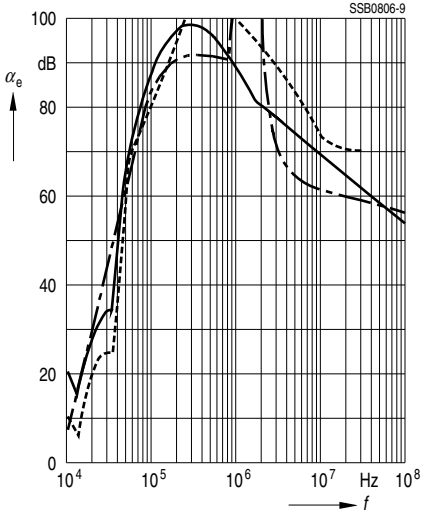
B84143-B80-R



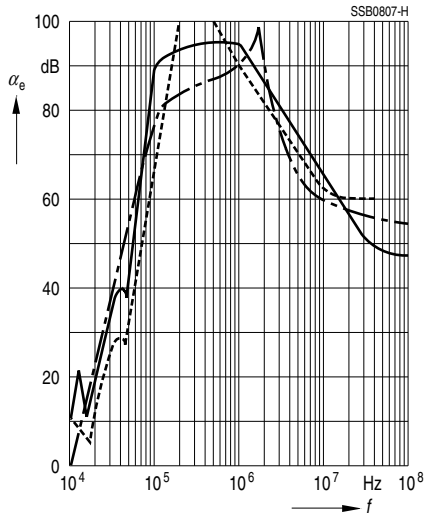
Insertion loss (typical values at $Z = 50 \Omega$)

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

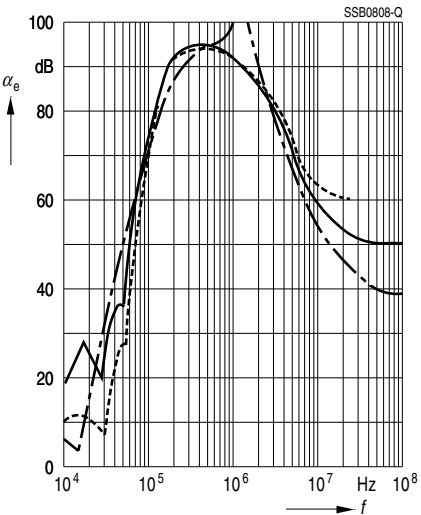
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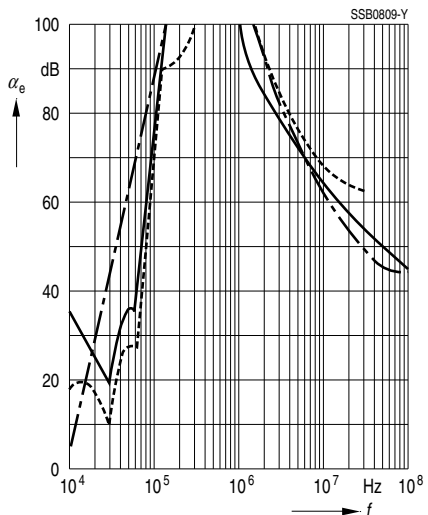
B84143-B12-R



B84143-B16-R



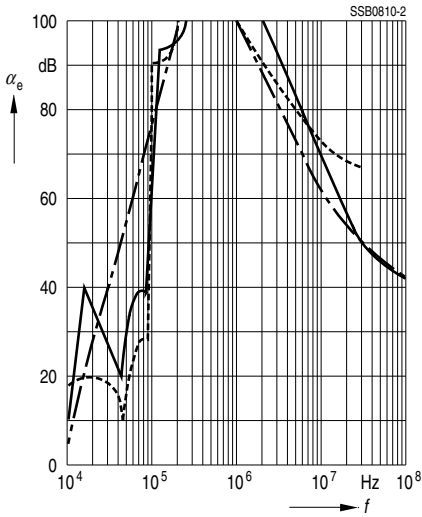
B84143-B25-R



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

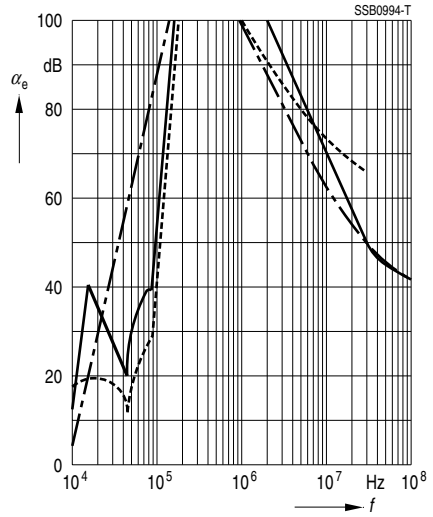
- unsymmetrical, adjacent branches terminated
- - - - - common mode, all branches in parallel (asymmetrical)
- - - - - differential mode (symmetrical)

B84143-B36-R



B84143-B50-R

B84143-B80-R



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