

**Power line filters for single-phase systems**

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

**Rated current 8 A to 25 A**

**Construction**

- Two-line filter
- Metal case

**Features**

- Very high insertion loss  
due to two-stage construction
- Low leakage current
- Easy to install
- Degree of protection: IP 20<sup>1)</sup>
- Design complies with  
EN 133 200, 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
  - conveyor systems
  - pumps
  - traction systems
  - HVAC systems (heating, ventilation and air conditioning)
- Power supplies

**Terminals**

- Safe-to-touch terminal blocks

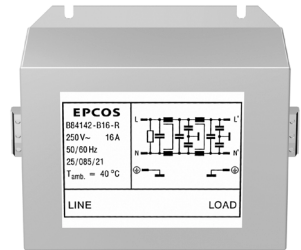
**Marking**

Marking on component:

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

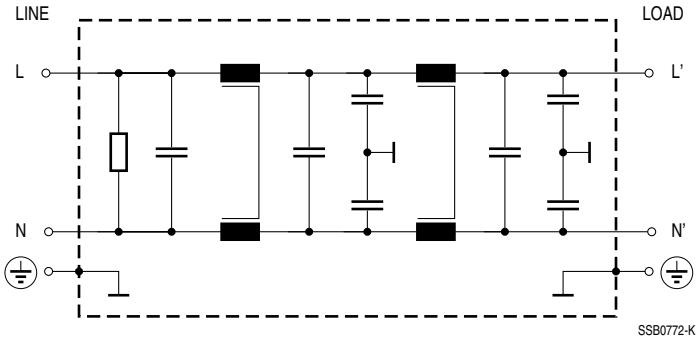
Minimum marking on packaging:

Manufacturer's logo, ordering code



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

**Typical circuit diagram**



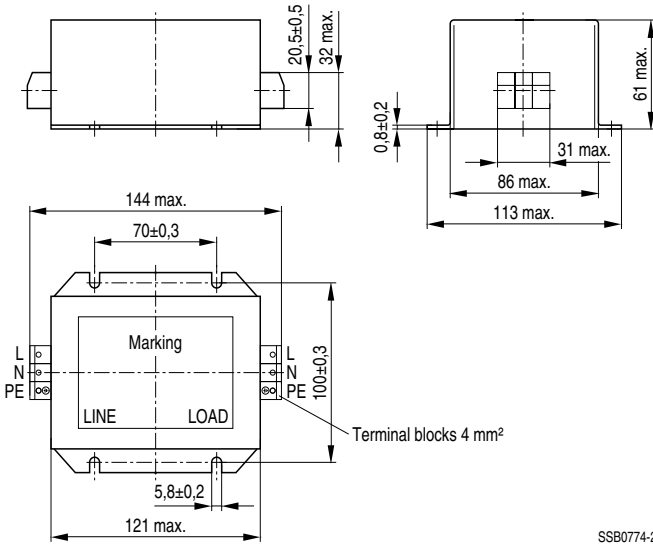
**Technical data**

Rated voltage $V_R$	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 or 2,5 · $I_R$ for 30 s per hour
Leakage current $I_{leak}$	at 250 V~, 50 Hz
Climatic category	25/100/21 (– 25 °C/+ 100 °C/21 days damp heat test) in accordance with EN 60068-1

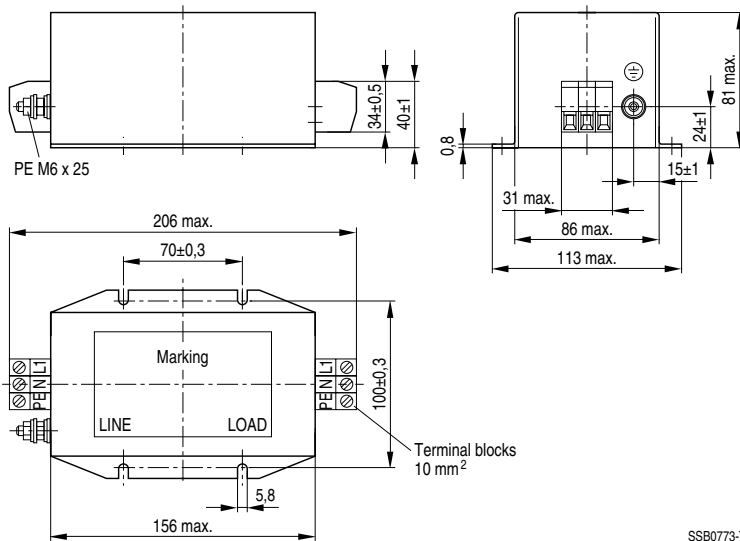
**Characteristics and ordering codes**

$I_R$	Terminal cross section mm <sup>2</sup>	$I_{leak}$ mA	$R_{typ}$ mΩ	Approx. weight kg	Ordering code
A					
8	4	< 3,5	42	1,35	B84142-B8-R
12	4	< 3,5	30	1,45	B84142-B12-R
16	4	< 3,5	21	1,45	B84142-B16-R
25	10	< 3,5	9	3,7	B84142-B25-R

Dimensional drawing B84142-B8-R ... B84142-B16-R



Dimensional drawing B84142-B25-R

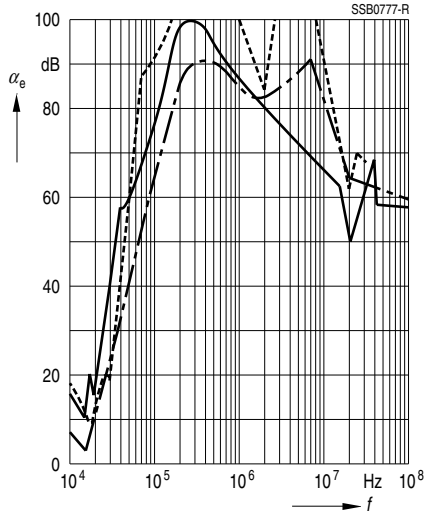


for Converters and Power Electronics

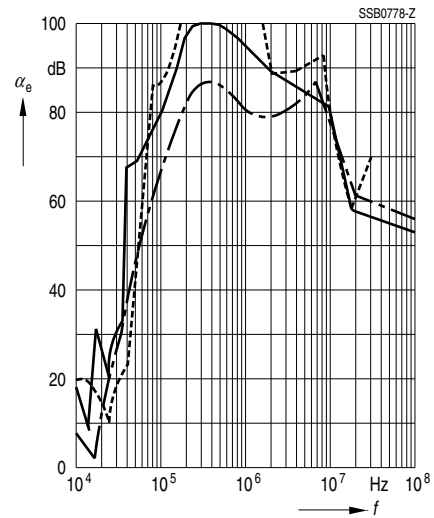
Insertion loss (typical values at  $Z = 50 \Omega$ )

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

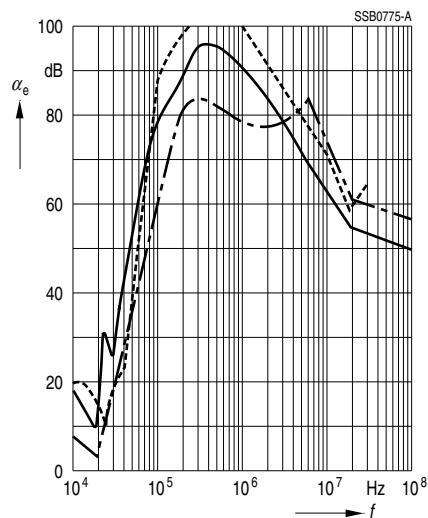
B84142-B8-R



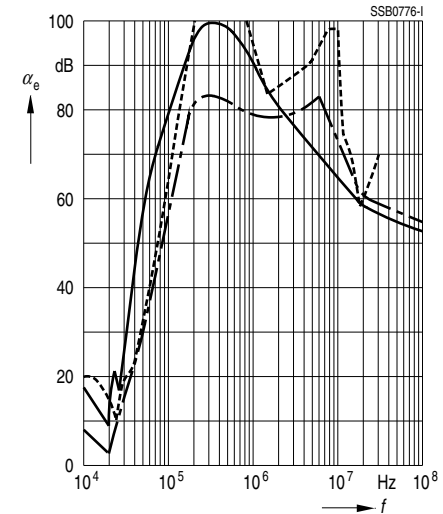
B84142-B12-R



B84142-B16-R



B84142-B25-R



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