



3-Line Filters

B84143-A⁺-R21

for Converters and Power Electronics

Power line filters for three-phase systems
Rated voltage 760/440 V~, 50/60 Hz
Rated current 25 to 180 A

Construction

- Three-line filter
- Metal case

Features

- High insertion loss
- Low leakage current
- Easy to install
- Degree of protection: IP 20¹⁾
- Space-saving design
- Design based on
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

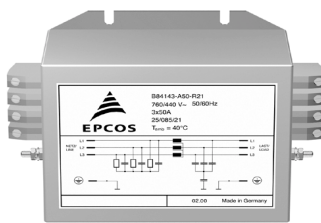
Terminals

- Safe-to-touch terminal blocks

Marking

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

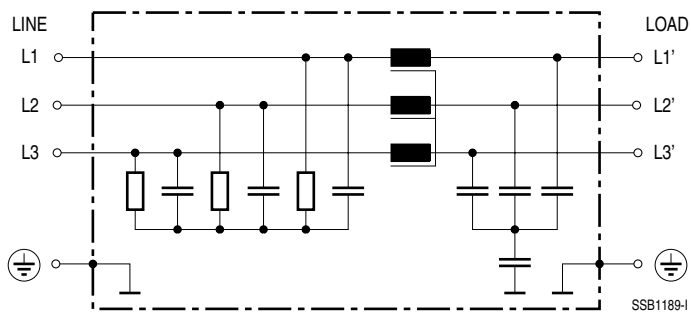


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Typical circuit diagram



Technical data

Rated voltage V_R	760/440 V~, 50/60 Hz
Rated current I_R	referred to 40 °C ambient temperature
Test voltage V_P	2121 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 690 V~, 50 Hz
Climatic category	25/1005/21 (– 25 °C/+ 100 °C/21 days damp heat test) in accordance with EN 60068-1

Characteristics and ordering codes

I_R A	Terminal cross section mm ²	I_{leak} mA	R_{typ} mΩ	Approx. weight kg	Ordering code
25	10	< 7	8,0	4	B84143-A25-R21
36	10	< 7	3,8	4	B84143-A36-R21
50	10	< 12	2,0	4	B84143-A50-R21
80	25	< 12	1,0	9,5	B84143-A80-R21
120	50	< 12	0,75	10	B84143-A120-R21
150	50	< 12	0,4	10	B84143-A150-R21
180	95	< 12	0,4	13	B84143-A180-R21



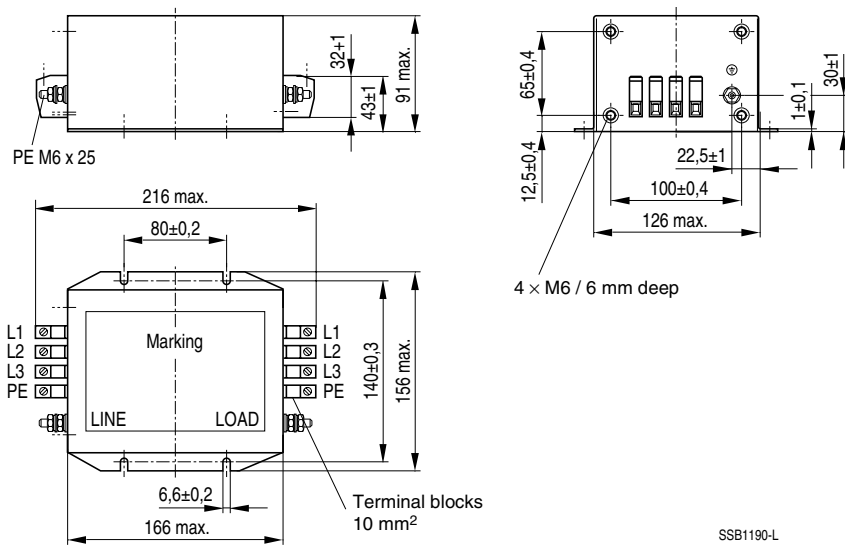
3-Line Filters

B84143-A*-R21

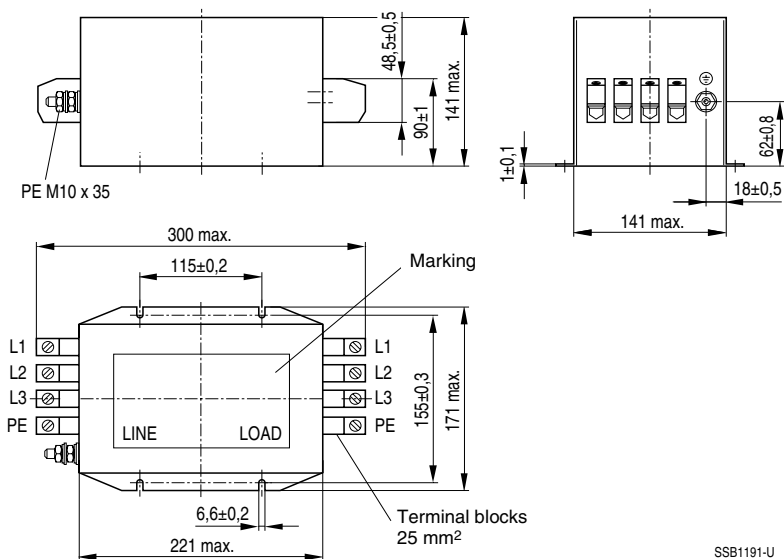
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Dimensional drawings

B84143-A25-R21 ... A50-R21



B84143-A80-R21



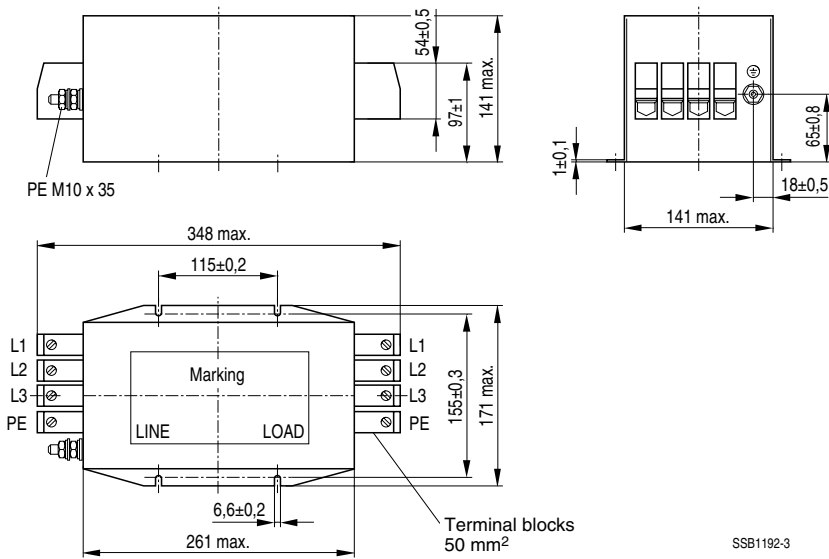


3-Line Filters

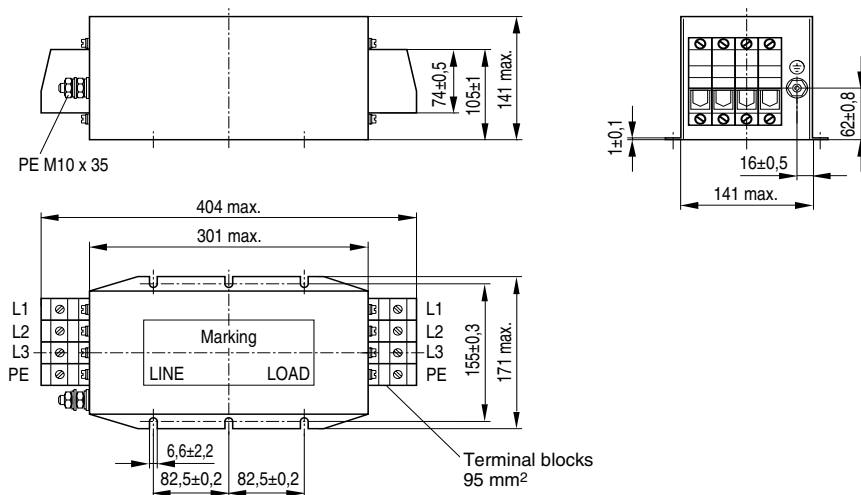
B84143-A⁺-R21

for Converters and Power Electronics

B84143-A120-R21, B84143-A150-R21



B84143-A180-R21

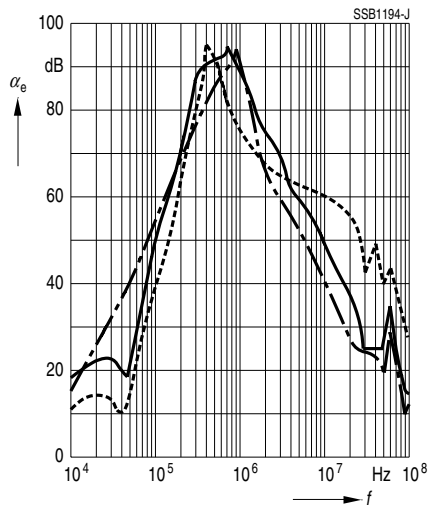




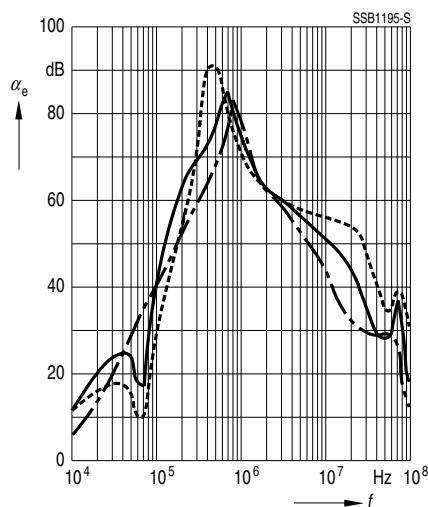
Insertion loss (typical values at $Z = 50 \Omega$)

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

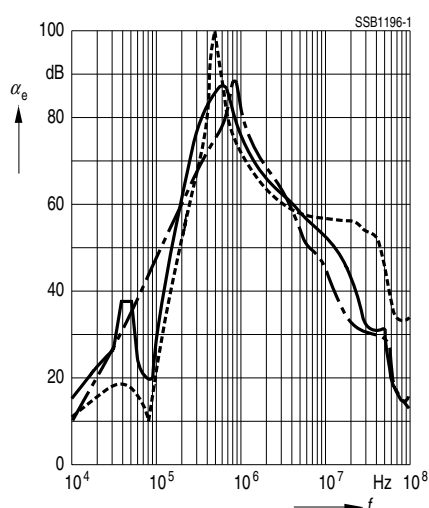
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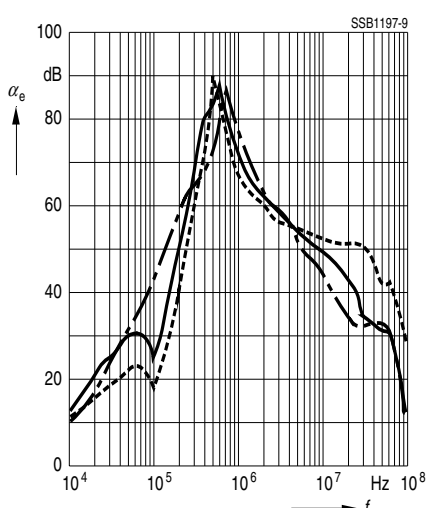
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B84143-A50-R21/B84143-A80-R21



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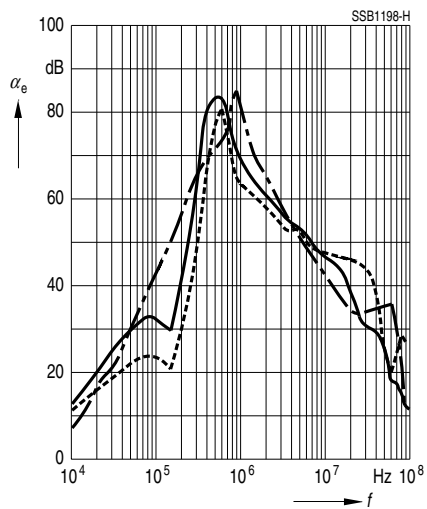




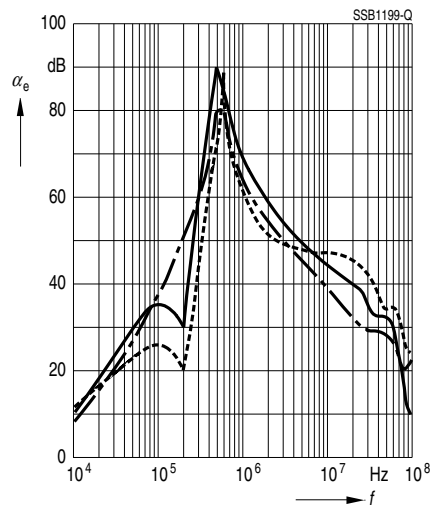
Insertion loss (typical values at $Z = 50 \Omega$)

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

B84143-A150-R21



B84143-A180-R21



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