

Power line filters for three-phase systems
Rated voltage 500, 690 and 760 V~
Rated current 150 A to 2500 A
Construction

- Three-line filter
- Metal case

Features

- Low leakage current
- Easy to install
- Very compact design
- B84143-B150...B600-S20: UL, CUL approval
- B84143-B150...B600-S21/S24: UL, CUL approval for 600/350 V~
- Optimized for operation under full load
- Low weight

Applications

- B84143-***-S24 for IT mains supply
- Frequency converters for motor drives
- Wind farms
- Power supplies

Terminals

- Busbars

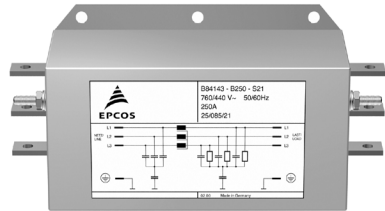
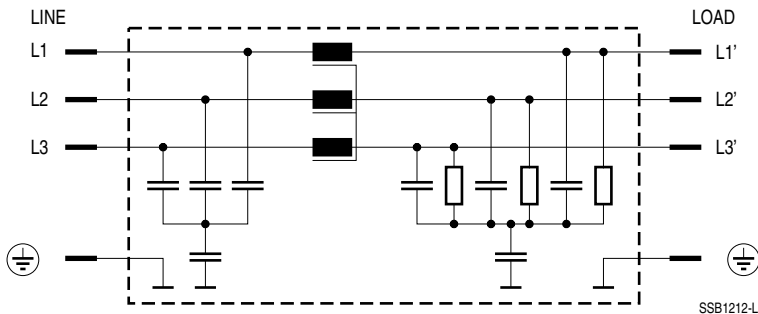
Marking

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


Typical circuit diagram


3-Line Filters	B84143-B*-S20
for Converters and Power Electronics	... B84143-B*-S24

Technical data

Rated voltage V_R	500/290 V~, 50/60 Hz (type -S20) 690/400 V~, 50/60 Hz (type -S24); UL, CUL 600/350 V~ 760/440 V~, 50/60 Hz (type -S21); UL, CUL 600/350 V~
Rated current I_R	Referred to 40 °C ambient temperature
Test voltage V_P	2121 V~, 2 s (line/line) 2686 V~, 2 s (lines/case) type -S20 2890 V~, 2 s (lines/case) type -S21, -S24
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 V_R , 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	I_{leak}	R_{typ}	Approx. weight kg	Ordering code
A	mA	$\mu\Omega$		
150	< 6	140	13	B84143-B150-S**
180	< 6	140	13	B84143-B180-S**
250	< 6	63	15	B84143-B250-S**
320	< 6	67	21	B84143-B320-S**
400	< 6	67	21	B84143-B400-S**
600	< 6	52	22	B84143-B600-S**
1000	< 6	33	28	B84143-B1000-S**
1600	< 6	22	34	B84143-B1600-S**
2500	< 6	15	105	B84143-B2500-S**

Compilation of ordering code

Replace the asterisks ** by the code number for the required version:

20 = 500 V

21 = 760 V

24 = 690 V (filter for IT mains supply. See also chapter "General, network types", page 51)

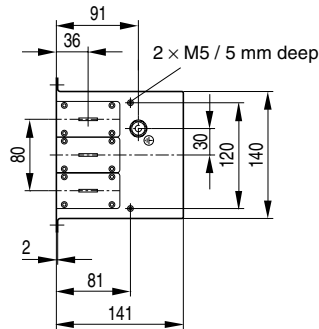
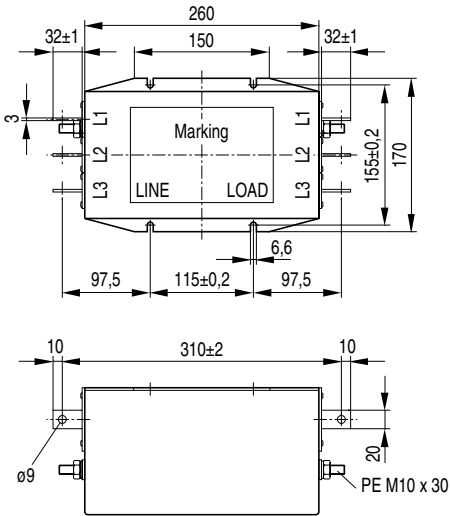
B84143-B*-S20

for Converters and Power Electronics

... B84143-B*-S24

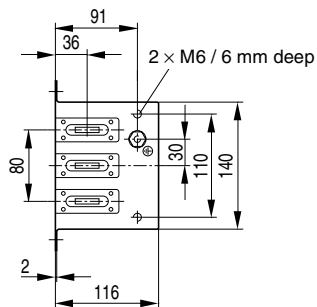
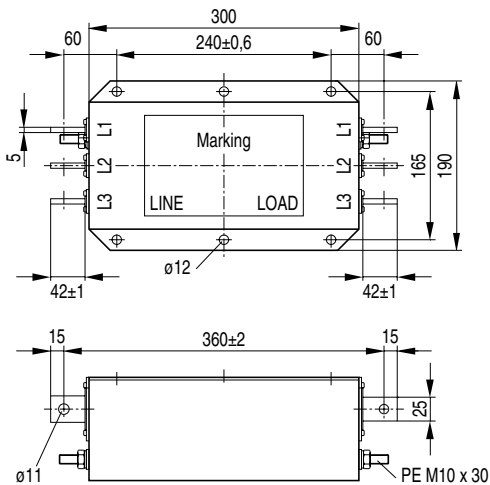
Dimensional drawings

B84143-B150-S, B84143-B180-S****

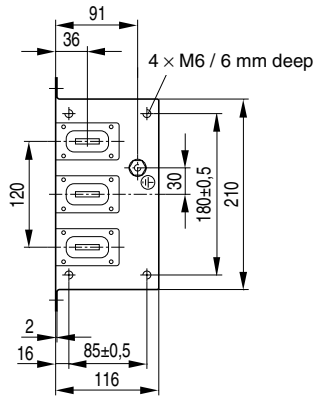
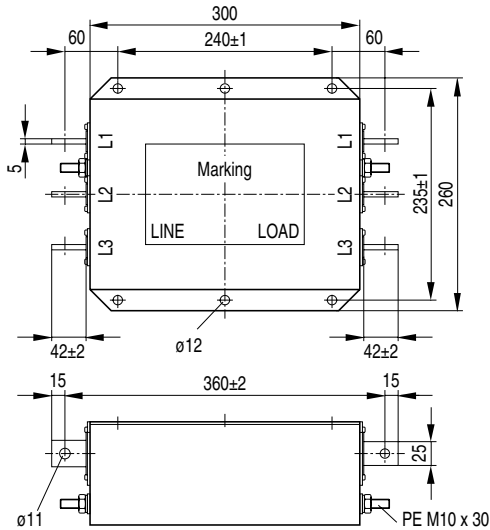


SSB1266-K

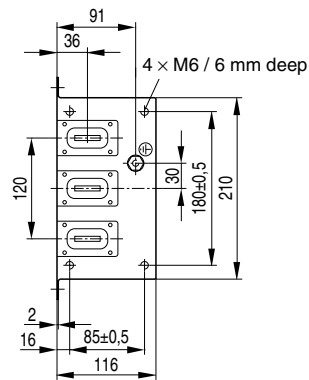
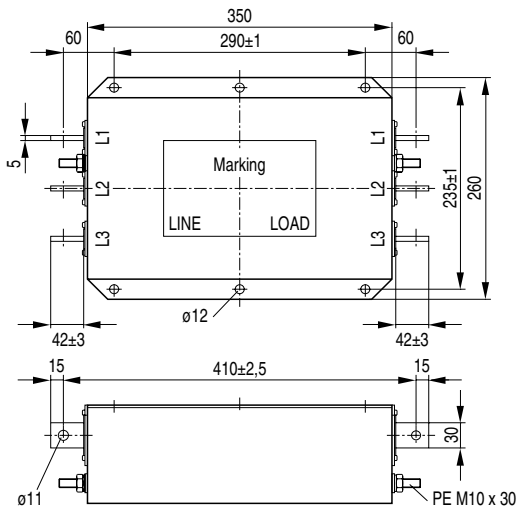
B84143-B250-S**



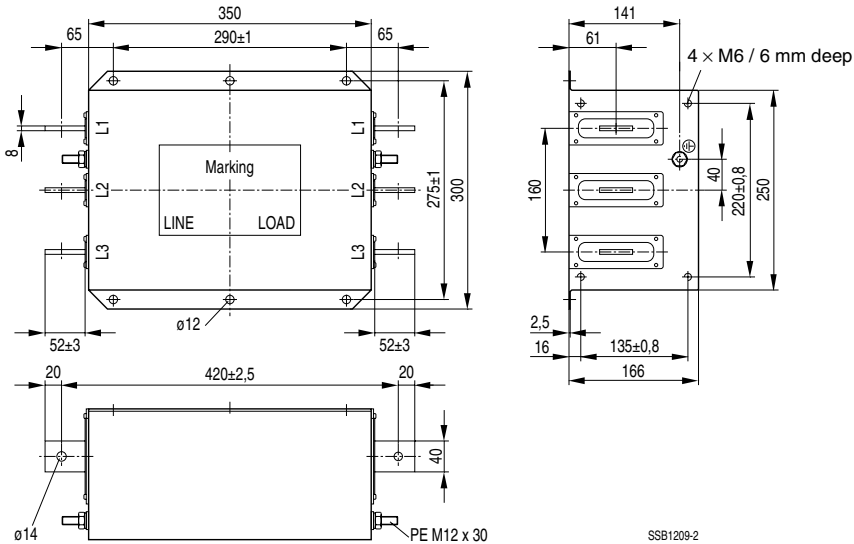
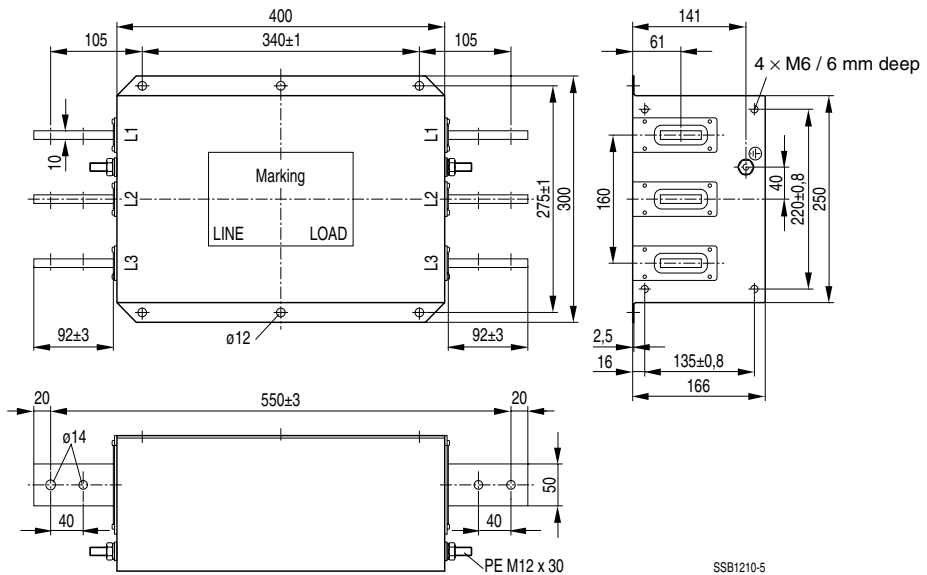
SSB1206-C

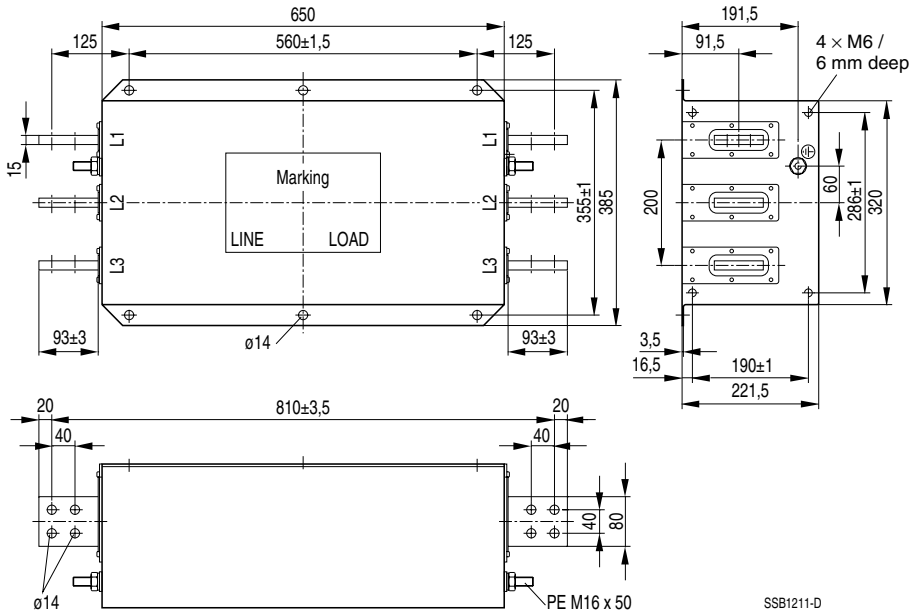
B84143-B320-S, B84143-B400-S****


SSB1207-K

B84143-B600-S**


SSB1208-T

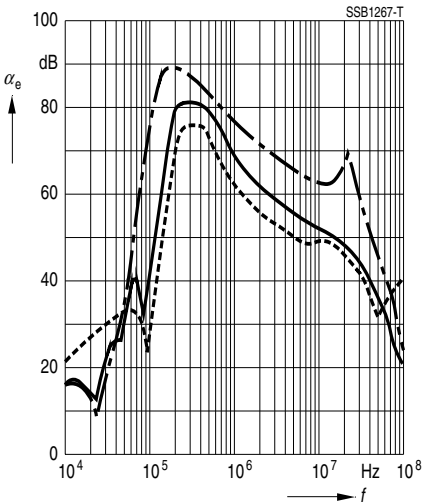
B84143-B1000-S**

B84143-B1600-S**


B84143-B2500-S**


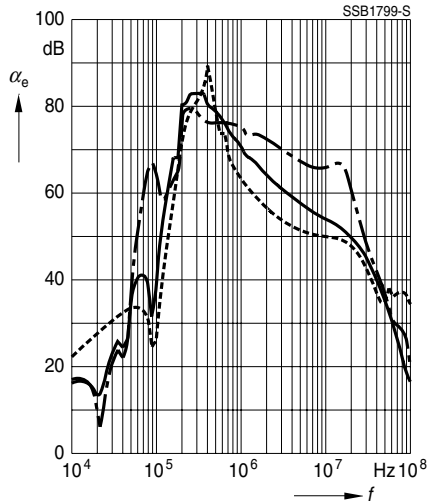
Insertion loss (typical values at $Z = 50 \Omega$)

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

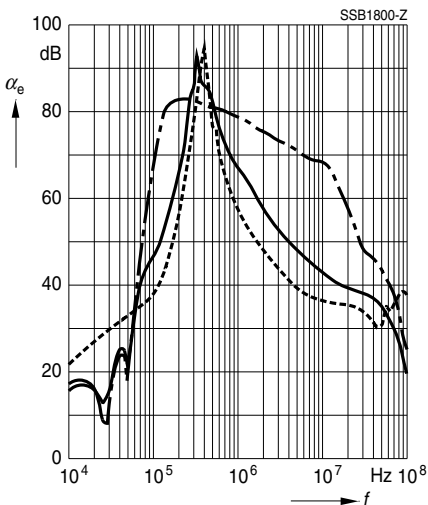
B84143-B150-S20, B84143-B180-S20



B84143-B250-S20



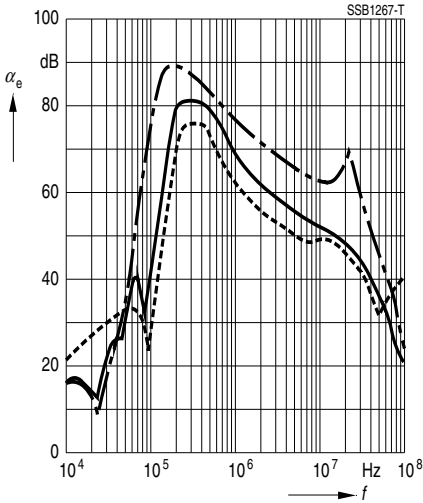
B84143-B320-S20 ... B84143-B2500-S20



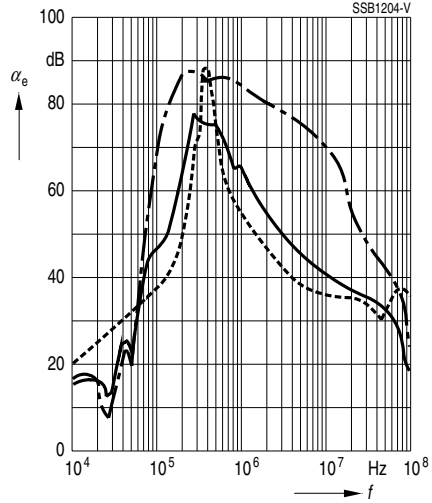
Insertion loss (typical values at $Z = 50 \Omega$)

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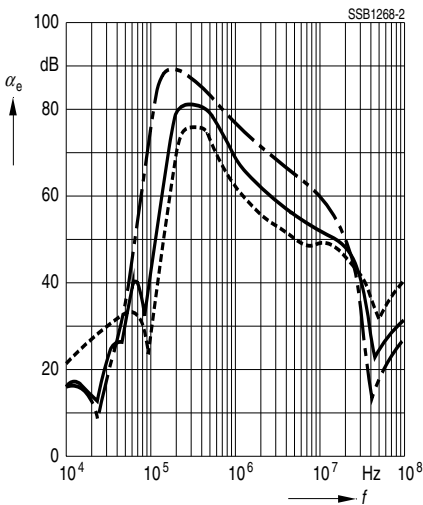
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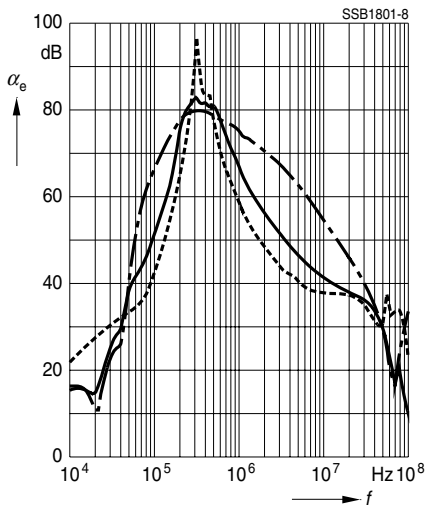
B84143-B320-S21 ... B84143-B2500-S21



B84143-B150-S24, B84143-B250-S24



B84143-B320-S24 ... B84143-B2500-S24



Herausgegeben von EPCOS AG

Marketing Kommunikation, Postfach 80 17 09, 81617 München, DEUTSCHLAND

☎ ++49 89 636 09, FAX (0 89) 636-2 26 89

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Marketing Communications, P.O. Box 80 17 09, 81617 Munich, GERMANY

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