

**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

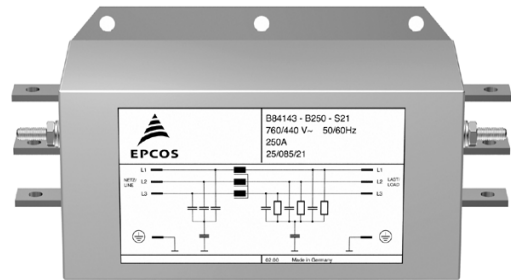
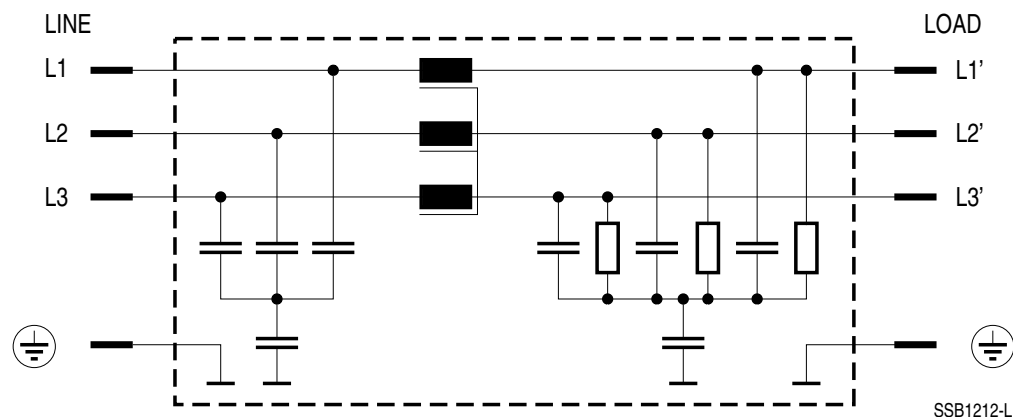
**Marking**

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**


**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	$1,5 \cdot I_R$ for 3 min per hour or $2,5 \cdot I_R$ 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	Ordering code
A	mA	$\mu\Omega$	kg	
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:

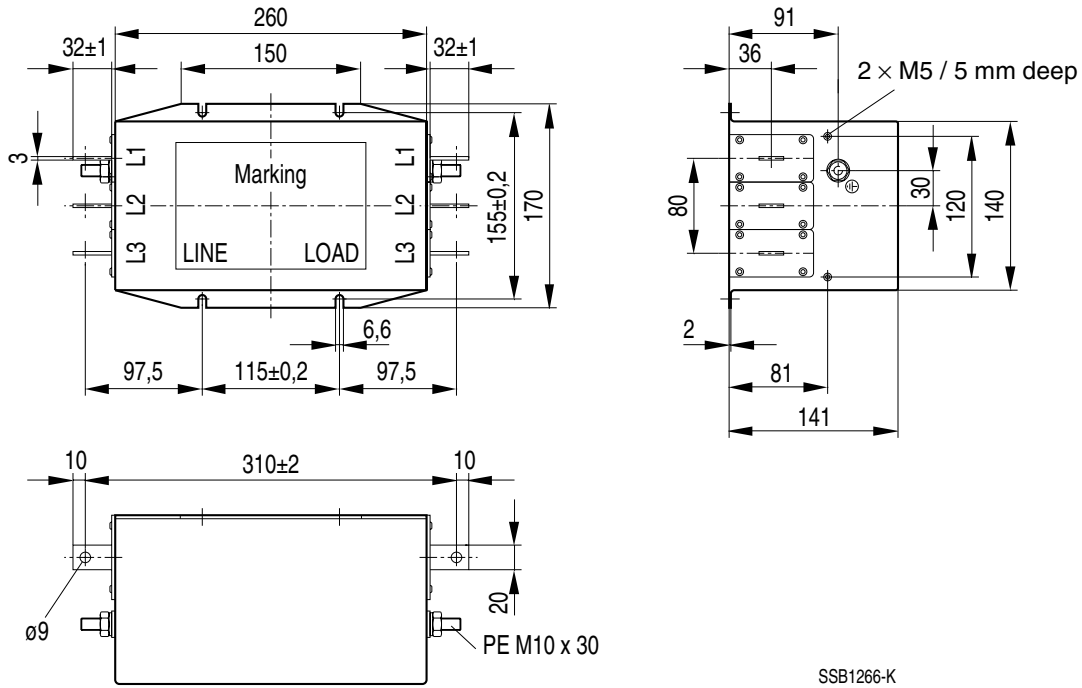
20 = 500 V

21 = 760 V

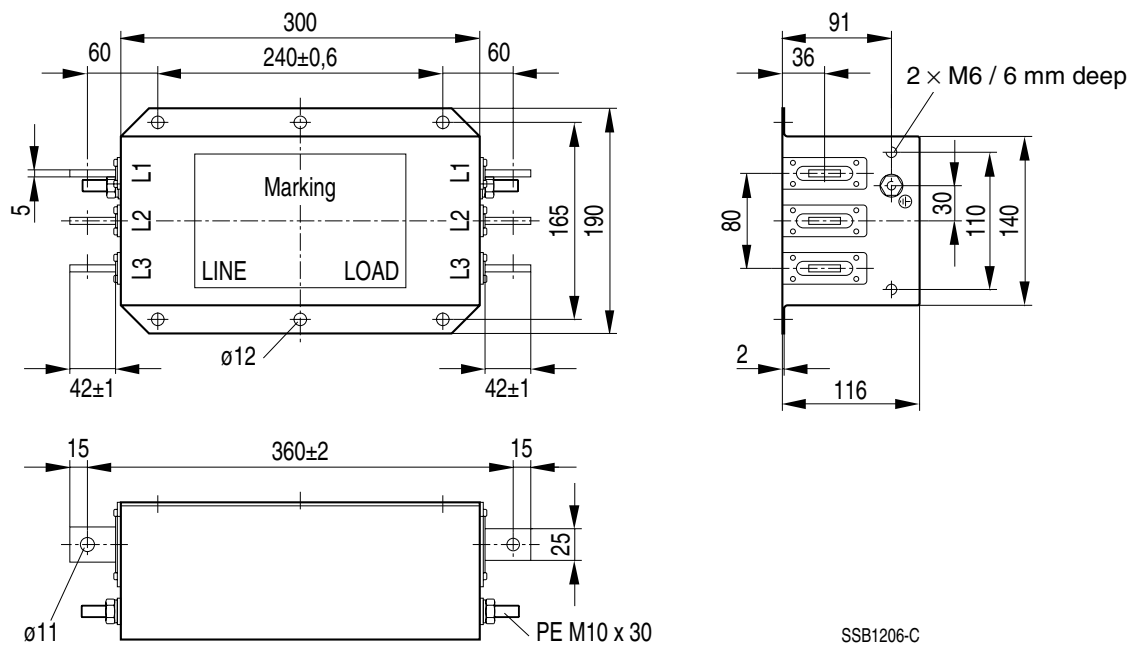
24 = 690 V (filter for IT mains supply. See also chapter "General, network types", page 51)

Dimensional drawings

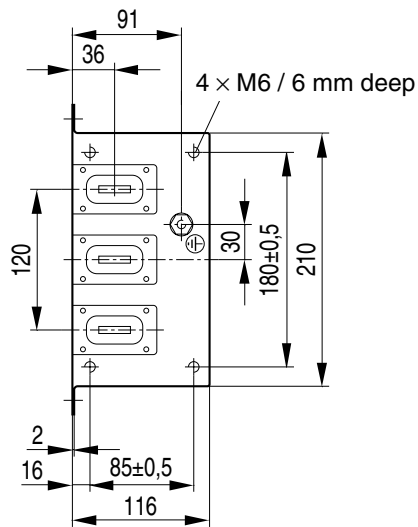
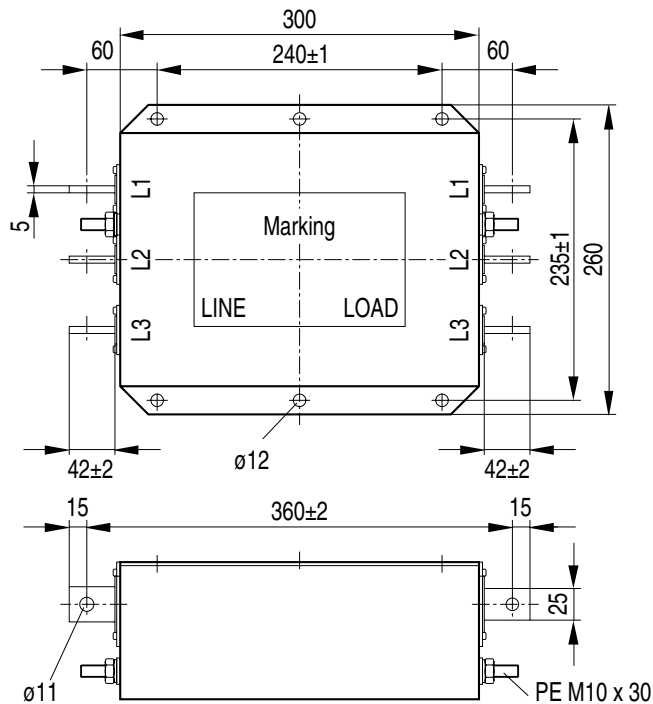
B84143-B150-S\*\*, B84143-B180-S\*\*



B84143-B250-S\*\*

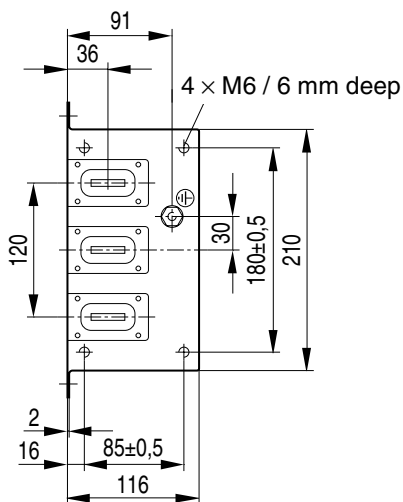
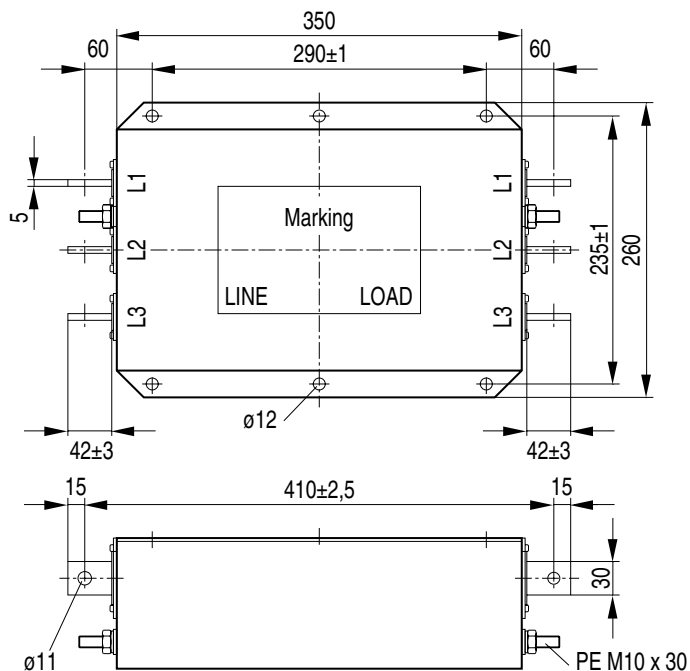


**B84143-B320-S\*\*, B84143-B400-S\*\***



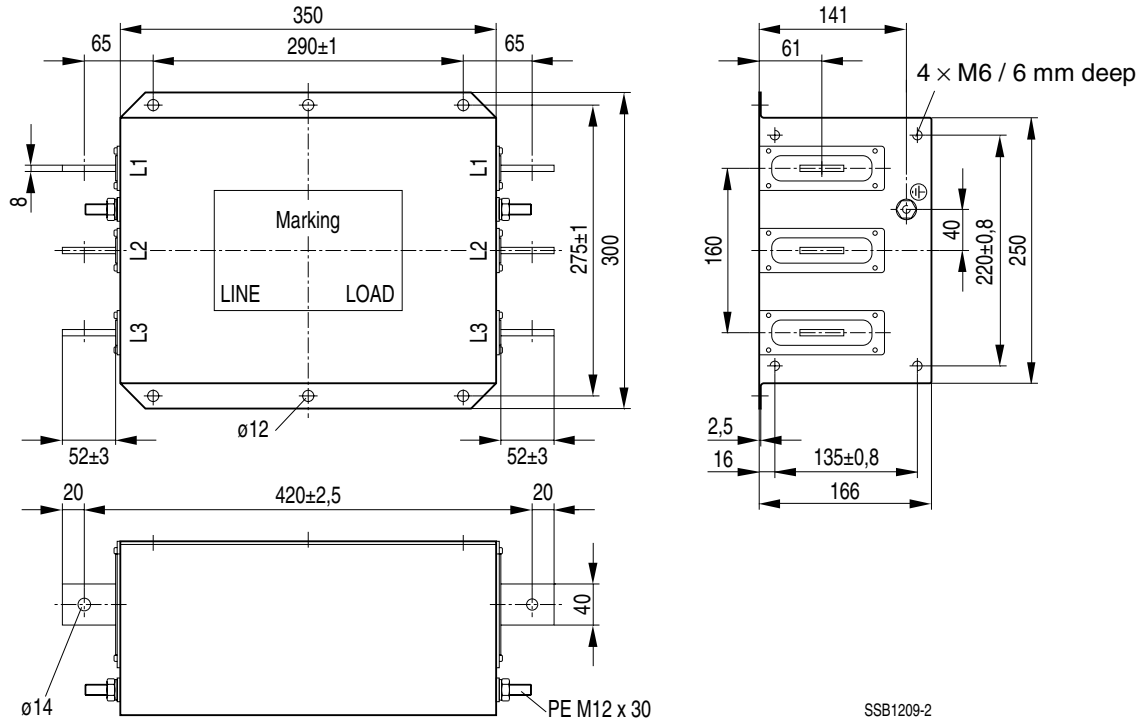
SSB1207-K

**B84143-B600-S\*\***

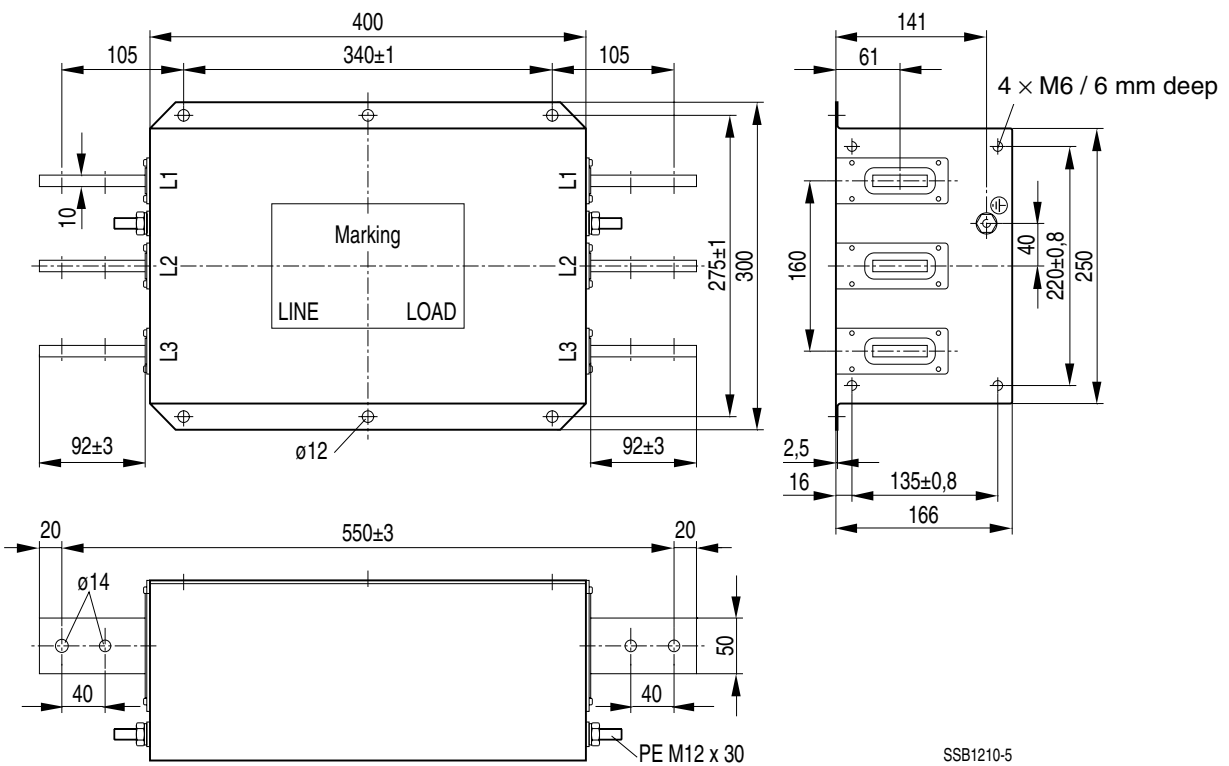


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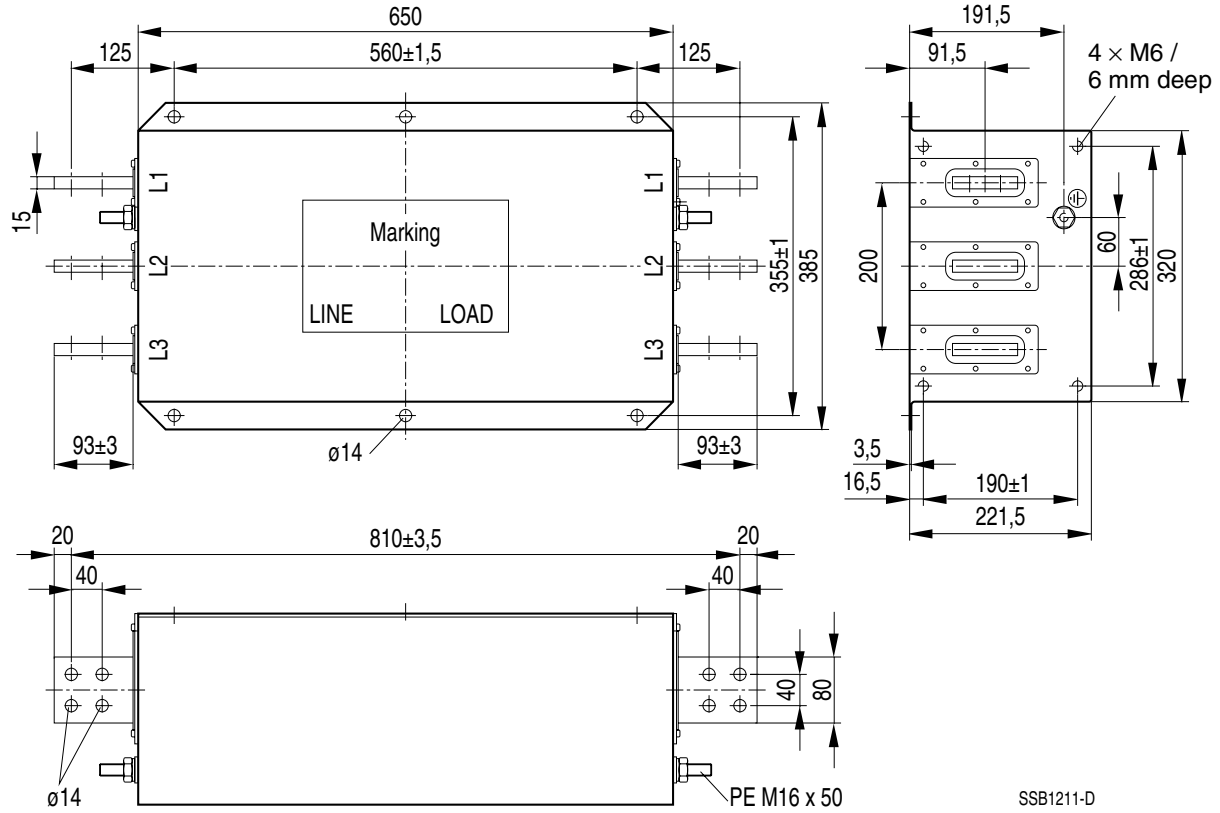
**B84143-B1000-S\*\***



**B84143-B1600-S\*\***



**B84143-B2500-S\*\***

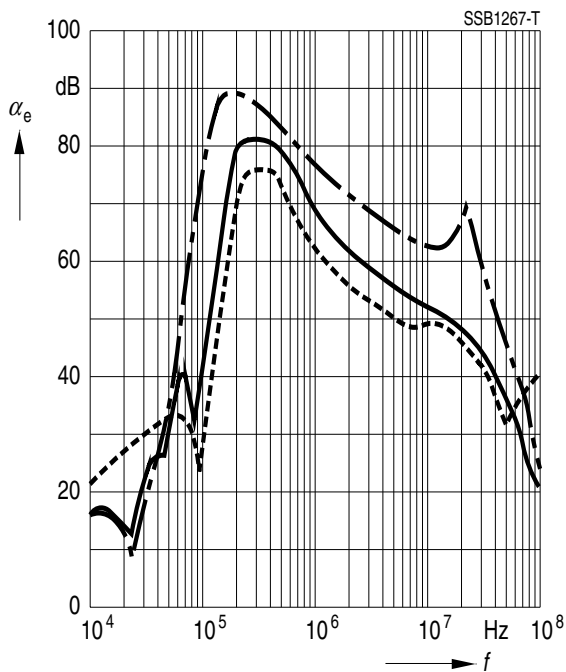


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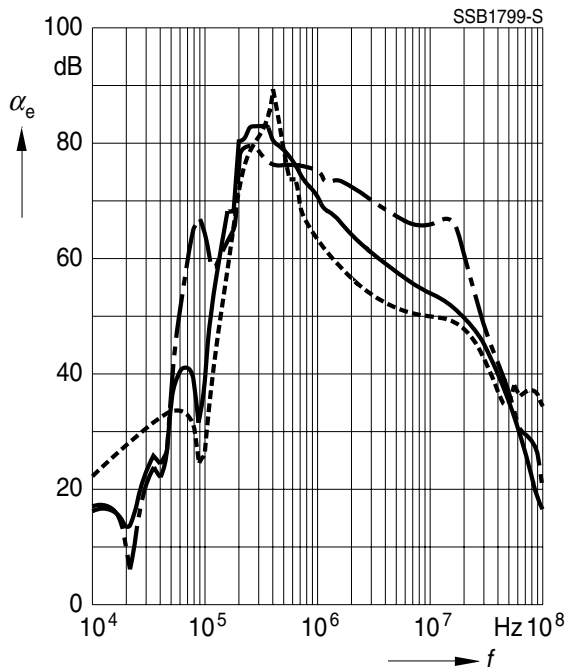
**Insertion loss** (typical values at  $Z = 50 \Omega$ )

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

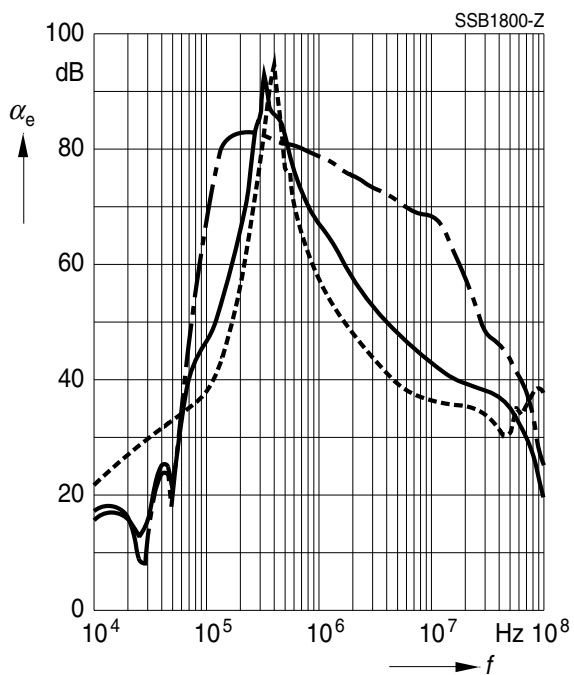
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B84143-B250-S20



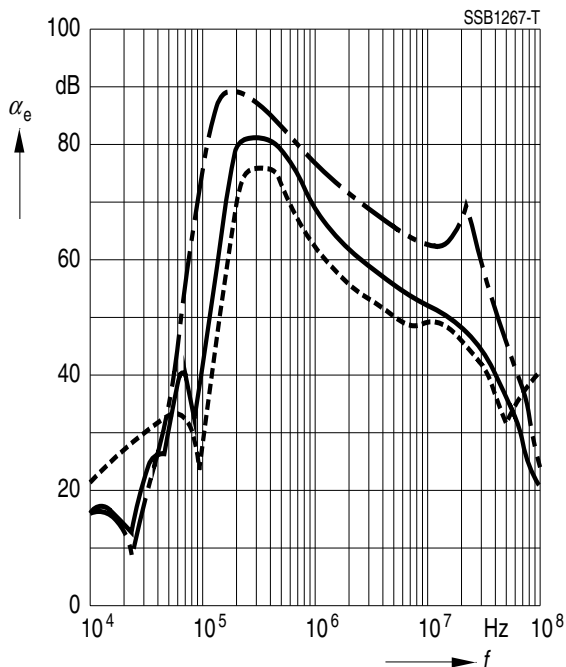
B84143-B320-S20 ... B84143-B2500-S20



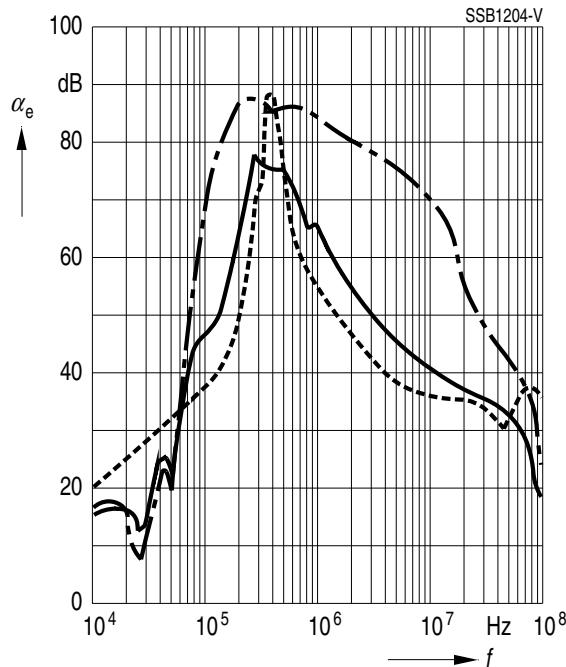
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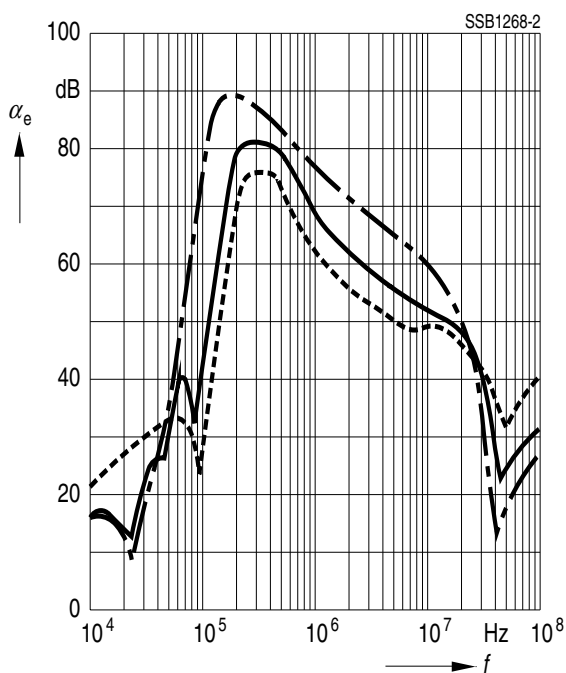
B84143-B150-S21, B84143-B250-S21



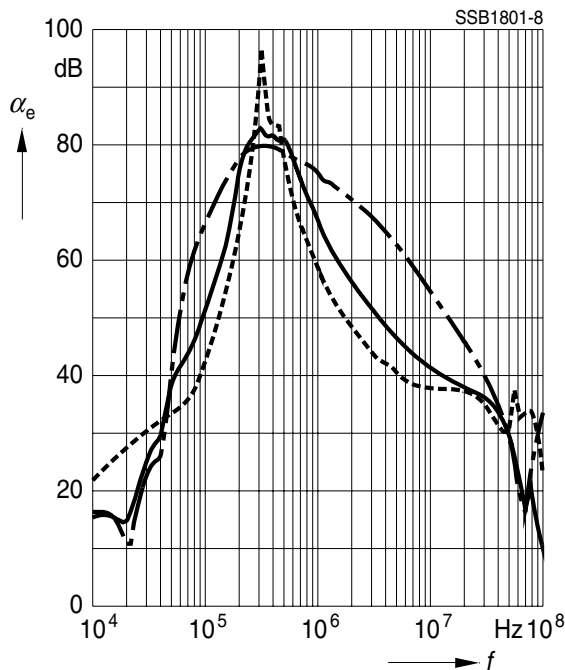
B84143-B320-S21 ... B84143-B2500-S21



B84143-B150-S24, B84143-B250-S24



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





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