

Four-line filters

4 A

Stopband attenuation up to 40 GHz



Overview

B84264: Single-stage, insertion loss = 100 dB from 150 kHz

B84266: Three-stage, insertion loss = 100 dB from 14 kHz

Features

- General-purpose use through design with separate lines without intercoupling
- Use of single chokes
- Insertion loss to CISPR 17

Design

The electrical components are incorporated in an RF-tight case of stainless steel. The cables enter through glands. The RF-tight termination of the openings is produced by specially shaped lids.

The conductors and equipment grounding conductor are connected by threaded bolts. The space around the fixing holes is left as bare metal (unpainted) to ensure good RF contact with metal surfaces (chassis, ground).

Protective measures (grounding)

The high capacitances between the lines and ground require special protective measures. If there are no product-specific requirements, protection with a secondary ground wire (diameter min. 10 mm²) in accordance with EN 50178 is necessary. For this purpose the filter case have connecting bolts at each end.

Resistors are incorporated in the filter to discharge capacitors after turn-off.

Installation

Filters are supplied complete with all parts required for RF-tight installation (fixing screws, flanges, RF gaskets, cable glands) and installation instructions.

Accessories and special versions

RF-tight flexible connector fittings in widths of 25 mm are available for installation spaced away from the shielding wall.

Filters with an EMP protection add-on for surge currents up to 100 kA per line are available on request.

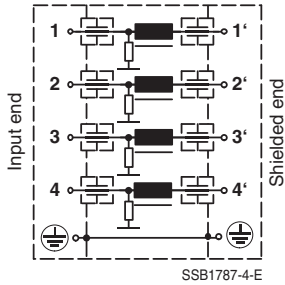
To match requirements, filters can be supplied with different kinds of EMC or shielding cable glands.

Tests

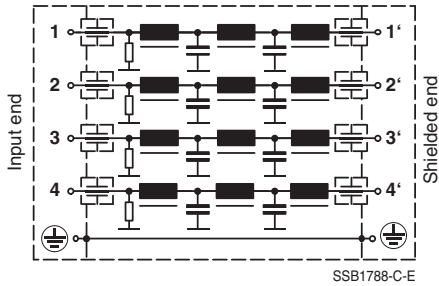
All filters are 100% tested and the results are archived under a filter's serial number. If required, a test report can be generated for the serial number.

Circuit diagrams

B84264

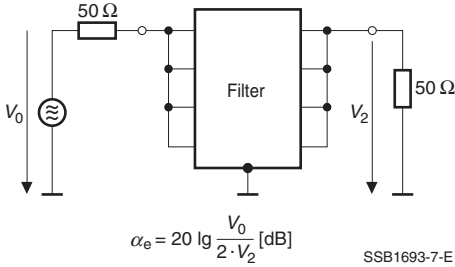


B84266

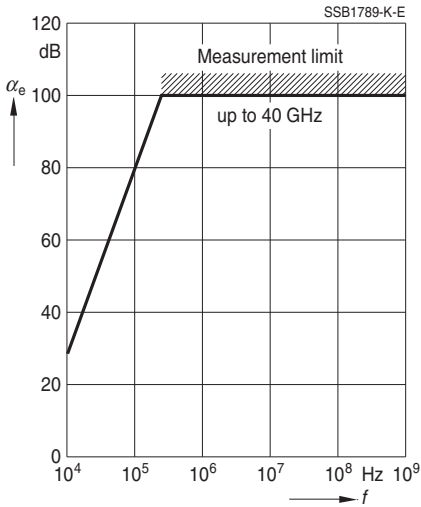


Insertion loss α_e (typical values at $Z = 50 \Omega$)

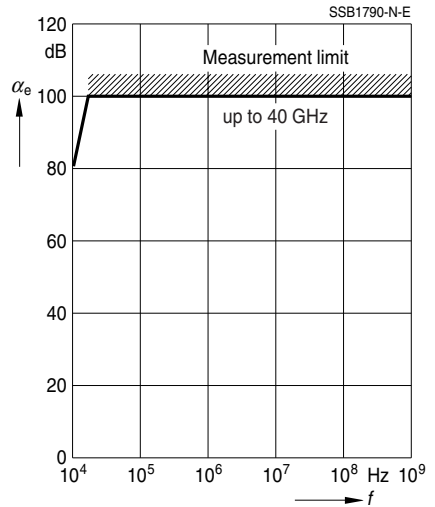
Measurement circuit



B84264 (single-stage)



B84266 (three-stage)

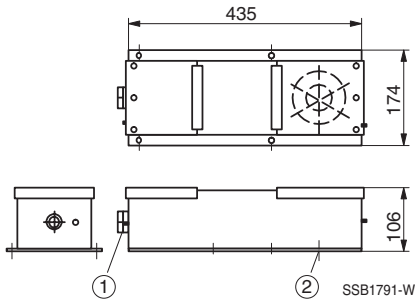


General technical data

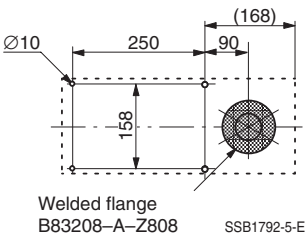
Rated voltage V_R	440 V 250 V	line/line line/case
Rated current I_R	4 A	referred to + 40°C ambient temperature
Rated frequency f_R	50/60 Hz	
Max. admissible overcurrent I_{over}	75 · I_R for 50 ms 10 · I_R for 1 s 2 · I_R for 1 min 1,4 · I_R for 15 min	
Test voltages V_T	1200 Vdc, 2 s 1200 Vdc, 2 s	line/line line/case
Voltage drop/phase ΔV	< 1 %	of V_R at 50 Hz and I_R
DC resistance R_{max}	see characteristics	per line
Power dissipation P_D	see characteristics	at I_R
Climatic category	25/085/56	(-25 °C/+85 °C/56 days damp heat test) to EN 60068-1
Mechanical version	A	direct connection to shielding wall with welded flange
	C	cable glands at both ends or flexible connector fitting

Characteristics and ordering codes

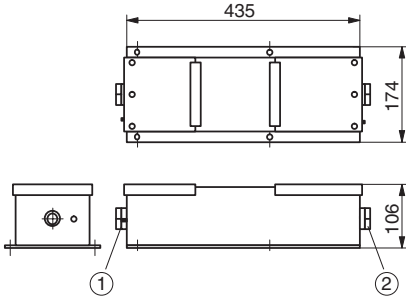
I_R	Mechanical version	R_{max} mΩ	P_D W	Dimensional drawing	Approx. weight kg	Ordering code
4 × 4	A	< 0,3	< 16	1	5,5	B84264-A21-E11
4 × 4	C	< 0,3	< 16	2	5,5	B84264-C21-E11
4 × 4	A	< 0,6	< 36	3	9	B84266-A21-E13
4 × 4	C	< 0,6	< 36	4	9	B84266-C21-E13

Dimensional drawing 1
B84264-A21-E11


- ① Input end: Cable gland PG 21
- ② Shielded end: Connecting flange in base with RF gasket.
Matching welded flange for shielded wall: B83208-A-Z808
(must be ordered separately)

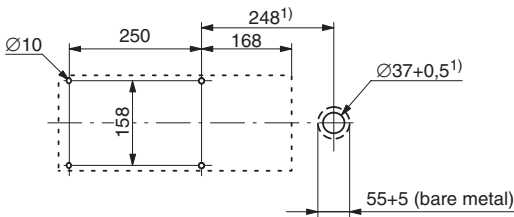
Fixing dimensions


(Welded flange must be ordered separately)

Dimensional drawing 2
B84264-C21-E11


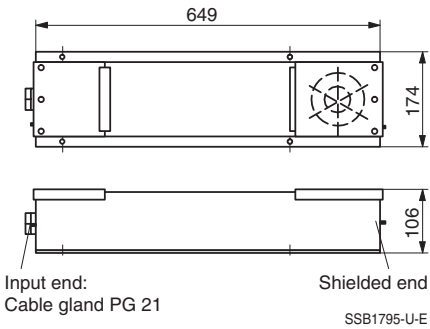
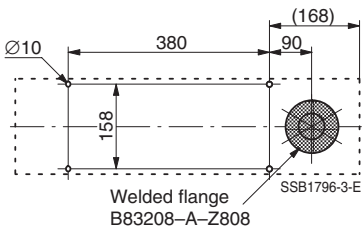
SSB1793-D

- ① Input end: Cable gland PG 21
- ② Shielded end: Cable gland PG 21;
 matching connector fitting, width 25 mm,
 ordering code B84298-A42-L*** (must be ordered separately)

Fixing dimensions


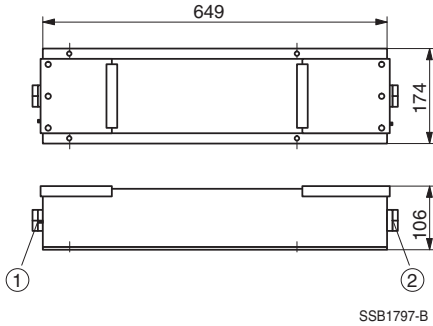
SSB1794-L-E

1) If connector fitting with 25 mm width is used (must be ordered separately, ordering code B84298-A42-L12)

Dimensional drawing 3
B84266-A21-E13

Fixing dimensions


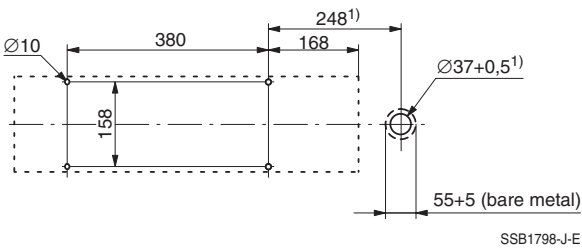
(Welded flange must be ordered separately)

Dimensional drawing 4
B84266-C21-E13



- ① Input end: Cable gland PG 21
- ② Shielded end: Cable gland PG 21;
matching connector fitting, width 25 mm,
ordering code B84298-A42-L*** (must be ordered separately)

Fixing dimensions



1) If connector fitting with 25 mm width is used (must be ordered separately, ordering code B84298-A42-L12)

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

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