

EMC-RFI Suppression Filters 1-phase systems



FKE/FKF Series, combi-filters to Protection Class I, conform to EN 133200, UL 1283 and IEC 950

Nominal current: 1 - 10 A @ ϑ_a 40°C
Nominal voltage (max.): 250 VAC 50/60 Hz
Attenuation: Standard
Leakage current: for Standard and Medical appl.
Test voltage: L/N → E 2.7 kVDC, 2 sec
 L → N 1.7 kVDC, 2 sec
Climatic category: 25/085/21 acc. to IEC 68-1
50% saturation typ.: 2 to 3 x I_N @ 20°C
Inrush current: 1.5 x I_N 1 min. per hour
MTBF @ 40°C / U_{max} : > 200'000 h acc. to MIL-HB-217 F



Approval obtained or pending:



Combi-filter 1-stage with drawer for 1 or 2 fuses 5 x 20 mm, connector 113. Combi-filter to Protection Class I for instrumentation and equipment having high attenuation over a very broad frequency range.

The new FK filter line from TIMONTA has been developed to meet the stringent requirements encountered in the design and manufacture of modern electronic equipment and instrumentation, having high attenuation over a very broad frequency range.

The wide product range offers various combinations:

- FKE** connector + drawer for 1 fuse 5 x 20 mm
- FKF** connector + drawer for 2 fuses 5 x 20 mm
- FKS** connector + 1-pole switch
- FKT** connector + 2-pole switch
- FKH** connector + 2-pole switch + 1 fuse 5 x 20 mm
- FKI** connector + 2-pole switch + 2 fuses 5 x 20 mm

Special versions for medical applications are also available.

Technical Data

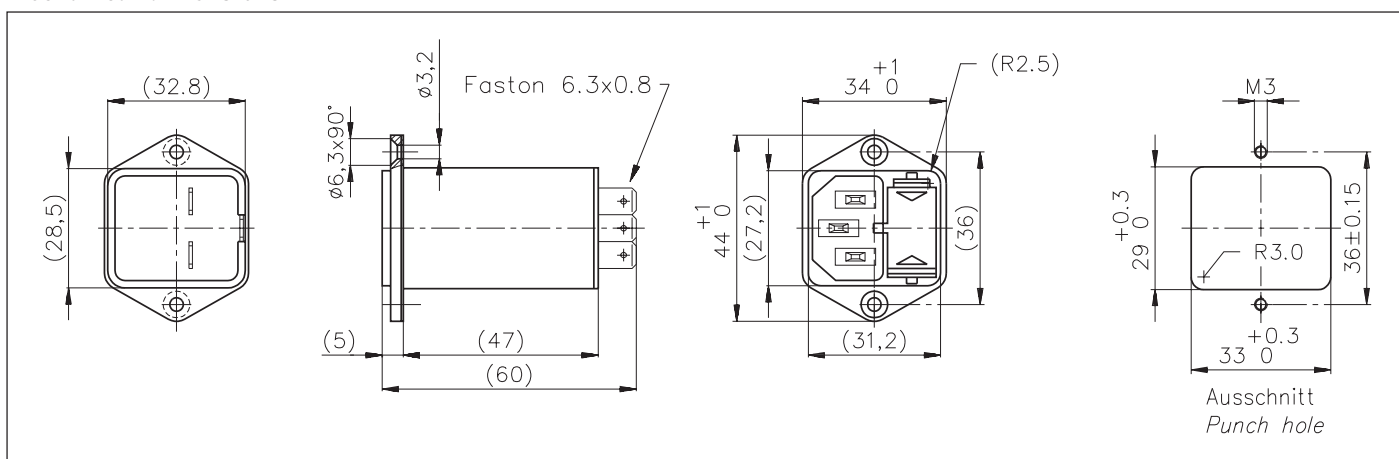
Type	I_N (1) @ ϑ_a 40°C [A]	U_{max} [V]	L_N (2) -30%/+50% [mH]	Leakage current @ 250 V/50 Hz [mA] (3)	Cx [nF]	Cy [nF]	Fuse insert F1	F2
FKE2-45-1/I	1	250V 50/60 Hz	2 x 10	< 0.5	68	2.2	5x20	—
FKE2-45-2/I	2		2 x 4	< 0.5	68	2.2	5x20	—
FKE2-45-4/I	4		2 x 1.5	< 0.5	68	2.2	5x20	—
FKE2-45-6/I	6		2 x 0.8	< 0.5	68	2.2	5x20	—
FKE2-45-10/I	10		2 x 0.3	< 0.5	68	2.2	5x20	—
FKF2-45-1/I	1		2 x 10	< 0.5	68	2.2	5x20	5x20
FKF2-45-2/I	2		2 x 4	< 0.5	68	2.2	5x20	5x20
FKF2-45-4/I	4		2 x 1.5	< 0.5	68	2.2	5x20	5x20
FKF2-45-6/I	6		2 x 0.8	< 0.5	68	2.2	5x20	5x20
FKF2-45-10/I	10		2 x 0.3	< 0.5	68	2.2	5x20	5x20

(1) Current derating over 40°C : $I = I_N \times \sqrt{(85 - \vartheta_a)/45}$

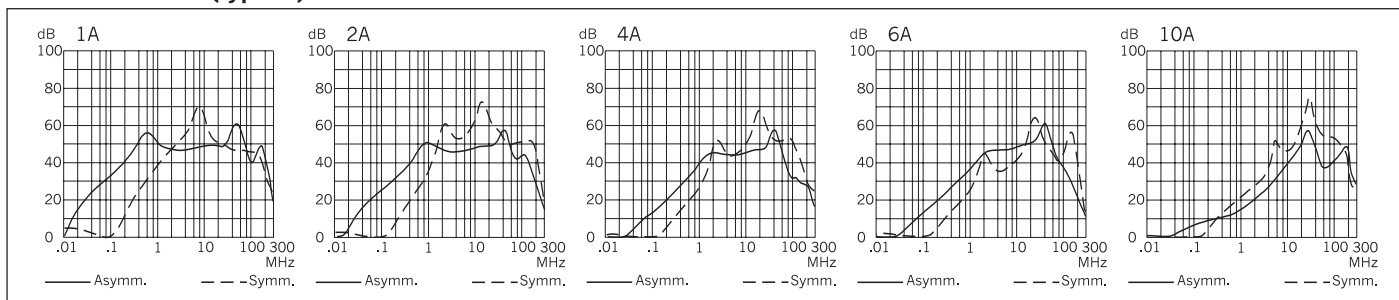
(2) Nominal inductance measured according to EN 138100, see introduction of this catalog, paragraph 3.4

(3) Measured according to IEC 950 5.2.3 Annex D, see introduction of this catalog, paragraph 3.5

Mechanical dimensions FKE / FKF



Attenuation loss (typical) FKE / FKF



EMC-RFI Suppression Filters 1-phase systems



FKH/FKI Series, combi-filters to Protection Class I, conform to EN 133200, UL 1283 and IEC 950

Nominal current: 1 - 10 A @ ϑ_a 40°C
Nominal voltage (max.): 250 VAC 50/60 Hz
Attenuation: Medium
Leakage current: for Standard and Medical appl.
Test voltage: L/N → E 2.7 kVDC, 2 sec
 L → N 1.7 kVDC, 2 sec *
Climatic category: 25/085/21 acc. to IEC 68-1
50% saturation typ.: 2 to 3 x I_N @ 20°C
Inrush current: 1.5 x I_N 1 min. per hour
MTBF @ 40°C / U_{max} : > 200'000 h acc. to MIL-HB-217 F
 *without resistor

Approval obtained or pending:



Also available Version FK.-50-x-/I-A with aluminium-case !

Combi-filter 1-stage with 2-pole switch, drawer for 1 or 2 fuses 5 x 20 mm and connector 113. Combi-filter to Protection Class I for instrumentation and equipment having high attenuation over a very broad frequency range.

The new FK filter line has been developed to meet the stringent requirements encountered in the design and manufacture of modern electronic equipment and instrumentation, having high attenuation over a very broad frequency range.

Technical Data

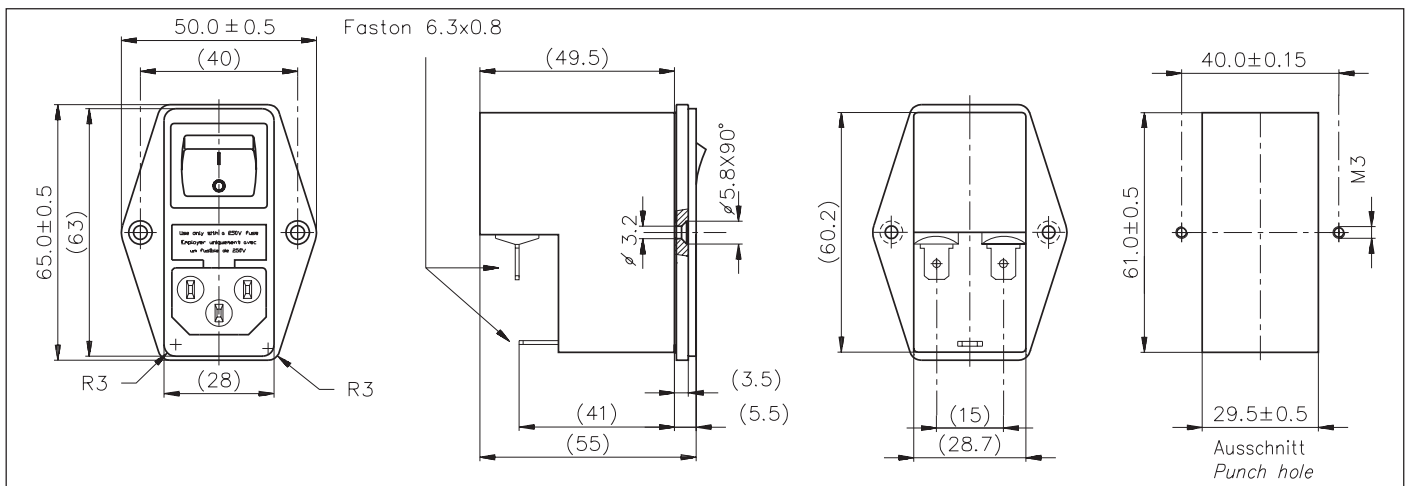
Type	I_N (1) @ ϑ_a 40°C [A]	U_{max} [V]	L_N (2) -30% / +50% [mH]	Leakage curr. (3) @ 250 V / 50 Hz [mA]	C_x [nF]	C_y [nF]	Fuse insert F1 F2
FKH2-50-1/I	1	50/60 Hz	2 x 10	< 0.5	68	2.2	5x20 —
FKH2-50-2/I	2		2 x 4	< 0.5	68	2.2	5x20 —
FKH2-50-4/I	4		2 x 1.5	< 0.5	68	2.2	5x20 —
FKH2-50-6/I	6		2 x 0.8	< 0.5	68	2.2	5x20 —
FKH2-50-10/I	10		2 x 0.3	< 0.5	68	2.2	5x20 —
FKI2-50-1/I	1		250V	2 x 10	< 0.5	68	2.2
FKI2-50-2/I	2	2 x 4		< 0.5	68	2.2	5x20 5x20
FKI2-50-4/I	4	2 x 1.5		< 0.5	68	2.2	5x20 5x20
FKI2-50-6/I	6	2 x 0.8		< 0.5	68	2.2	5x20 5x20
FKI2-50-10/I	10	2 x 0.3		< 0.5	68	2.2	5x20 5x20

(1) Current derating over 40°C : $I = I_N \times \sqrt{(85 - \vartheta_a) / 45}$

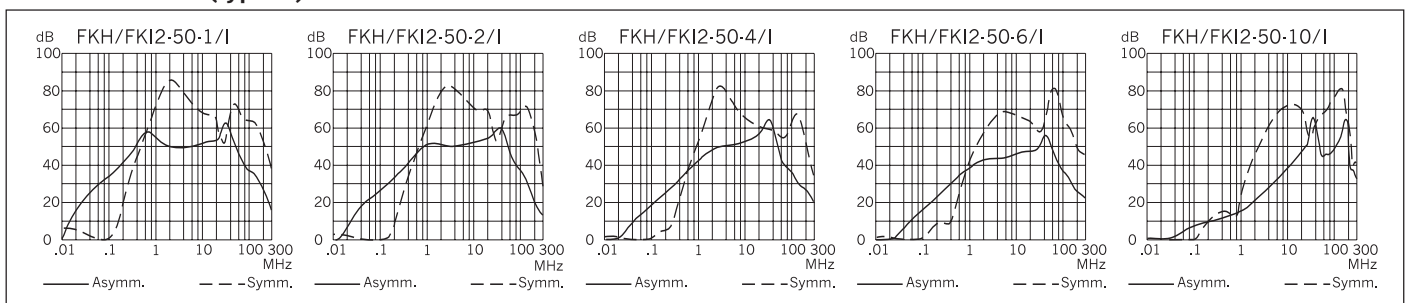
(2) Nominal inductance measured according to EN 138100, see introduction of this catalog, paragraph 3.4

(3) Measured according to IEC 950 5.2.3 Annex D, see introduction of this catalog, paragraph 3.5

Mechanical dimensions FKH / FKI



Attenuation loss (typical) FKH / FKI



The wide product range offers various combinations:

- FKE** connector + drawer for 1 fuse 5 x 20 mm
- FKF** connector + drawer for 2 fuses 5 x 20 mm
- FKS** connector + 1-pole switch
- FKT** connector + 2-pole switch
- FKH** connector + 2-pole switch + drawer for 1 fuse 5 x 20 mm
- FKI** connector + 2-pole switch + drawer for 2 fuses 5 x 20 mm
- FKG** connector + 2-pole switch without fuses upon request

Special versions for medical applications are also available.

Circuit diagram FKH (FKI)

