

Multi-stage performance filter

FN 2070

- Current ratings from 1 to 36A
 - Very high differential and common mode attenuation
 - Good high-frequency attenuation
 - Optional medical versions (B types)
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- Nennströme von 1 bis 36A
 - Sehr hohe Gleich- und Gegentaktdämpfung
 - Gute Hochfrequenzdämpfung
 - Optionale medizinische Versionen (Typ B)
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- Courants de service de 1 à 36A
 - Très bonne atténuation en modes différentiel et mode commun
 - Bonne atténuation à des hautes fréquences
 - En option version pour appareils médicaux (type B)



Filter selection table

Choose the filter FN xxxx-x with the required current rating and features, and add /?? to determine input/output (line/load) connection style. Example: FN 2070-10/06 is a 10A filter with fast-on connections.

Approvals

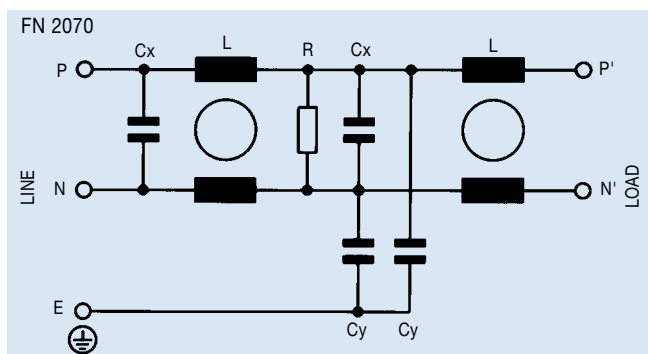


Filter	Connections			Current ratings at 40°C (25°) A	Inductance L mH	Capacitance		Resistance R MΩ	Housing	Weight g
						Cx μF	Cy nF			
FN 2070 -1 /??	/06	/07		1 (1.15)	22	0.33	4.7	1	K1	190
FN 2070 -3 /??	/06	/07		3 (3.45)	9.8	0.47	4.7	0.47	K2	250
FN 2070 -6 /??	/06	/07		6 (6.9)	7.8	1	4.7	0.22	P	450
FN 2070 -10 /??	/06	/07		10 (11.5)	4.5	1	4.7	0.22	Q	730
FN 2070 -12 /??	/06	/07		12 (13.8)	3.25	1	4.7	0.22	Q	730
FN 2070 -16 /??	/06	/07	/08	16 (18.4)	2.8	1	4.7	0.22	L2	1000
FN 2070 -25 /??			/08	25 (28.75)	2	2.2	4.7	0.22	Q	760
FN 2070 -36 /??			/08	36 (41.4)	1.23	2.2	4.7	0.22	Q	790

Additional specifications

Filter type	Maximum operating voltage		Operating frequency Hz	Hipot test voltage		MTBF Per Mil-HB-217F at 40°C 230V hours	Maximum leakage mA/phase
	VAC	Hz		PN→E VAC	P→N VDC		
Standard types	250	50/60	DC to 400	2000	1700	1 550 000	0.4
B medical types (no Y capacitors)	250	50/60	DC to 400	2500	1700	1 600 000	0.002
A safety types (lower capacitance)	250	50/60	DC to 400	2500	1700	1 550 000	0.040

Electrical schematic

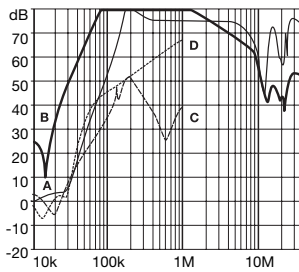


See tables for component values.

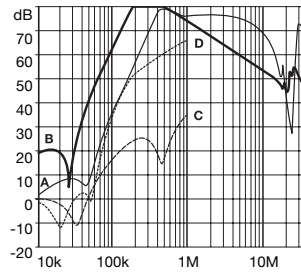
FN 2070 insertion loss

Per CISPR 17; A = 50Ω/50Ω sym, B = 50Ω/50Ω asym, C = 0.1Ω/100Ω sym, D = 100Ω/0.1Ω sym

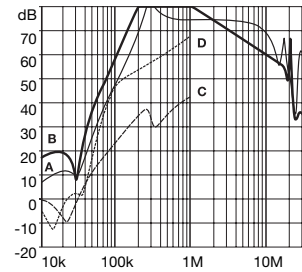
1A types



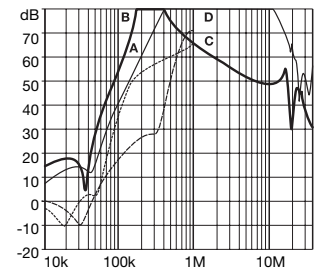
3A types



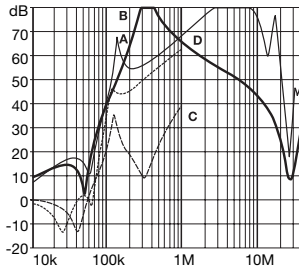
6A types



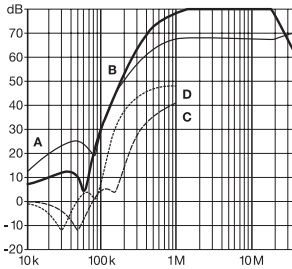
10A types (12A*)



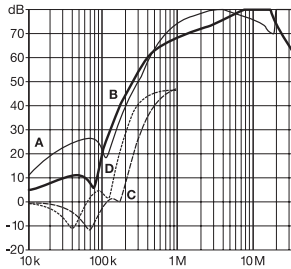
16A types



25A types



36A types



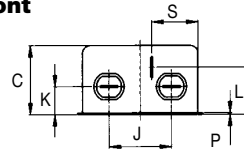
* attenuation performance of the 12A version is similar to the 10A component.

Mechanical data

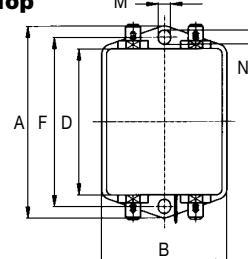
Housing style	K1	K2	Tol. ± mm
A	85		± 0.5
B	54		± 0.5
C	30.3	40.3	± 0.5
D	64.8		± 0.5
F	75		± 0.3
J	27		± 0.2
K	12.3/8.3 [§]		± 0.5
L	20.8/23.3	29.8	± 0.5
M	5.3		± 0.1
N	6.3		± 0.1
P	0.7		± 0.1
S	19.9/34.9 [§]	11.4/34.9 [§]	± 0.5

§ with /07 connections
wire length of /07: 140 +5 mm

Front



Top



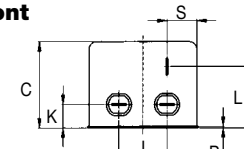
Housings K1, K2

Housing style	P	Q	L2	Tol.* ± mm
A	113.5	156	119 ± 0.5	± 1
B	57.5		85.5	± 1
C	45.4 ± 1.2		57.6	± 1
D	94	130.5	98.5	± 1
F	103	143	109	± 0.3
J	25	40	40	± 0.2
K	12.4/8.4 [§]		15.6/8.6 [§]	± 0.5
L	32.4			± 0.5
M	4.4	5.3	4.4	± 0.1
N	6		7.4	± 0.1
P	0.9		1.2	± 0.1
Q			66	± 0.3
R			51	± 0.2
S	15.5/38 [§]			± 0.5

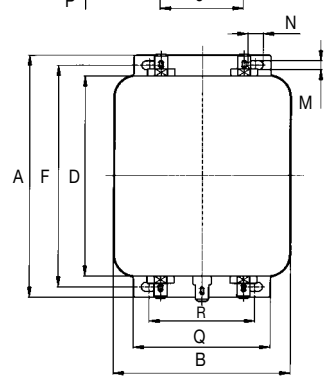
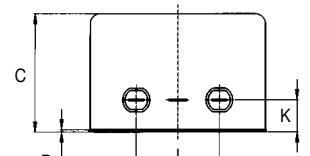
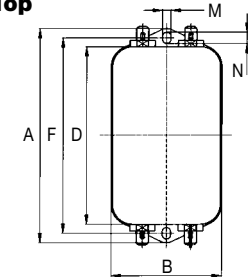
§ with /07 connections
wire length of /07: 140 +5 mm

* Measurements share this common tolerance unless otherwise stated.

Front



Top



Housings P, Q

Housing L2

All dimensions in mm; 1 inch = 25.4 mm