SCHAFFNER

Multi-stage high-performance filter FN 2080

- current ratings from 1 to 16A
- very high differential and common mode attenuation
- good low-frequency attenuation
- optional medical versions (B types)

- Nennströme von 1 bis 16A
- Sehr hohe Gleich- und Gegentaktdämpfung
- Gute Niederfrequenzdämpfung
- Optionale medizinische Versionen (Typ B)

- courants de service de 1 à 16 A
- très bonne atténuation en modes différentiel et commun
- bonne atténuation à des basses 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 2080-10/06 is a 10A filter with fast-on connections.

Approvals

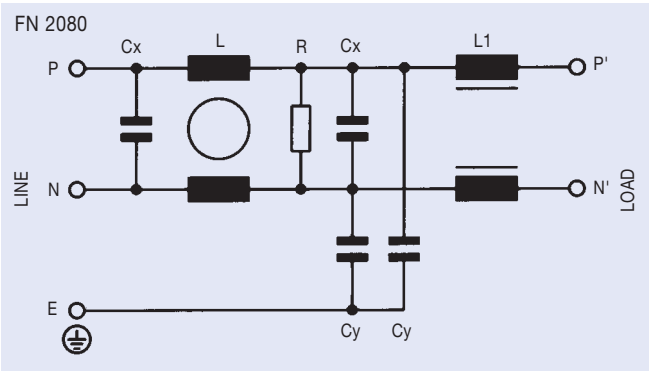
EN 133200

Filter	Connections			Current ratings at 40°C (25°) A		Inductance L mH	Inductance L1 mH	Capacitance Cx µF	Capacitance Cy nF	Resistance R MΩ	Housing	Weight g
FN 2080-1 /??	/06	/07	-	1	(1.15)	22	0.49	0.33	4.7	1	K1	200
FN 2080-3 /??	/06	/07	-	3	(3.45)	9.8	0.16	0.47	4.7	0.47	K2	270
FN 2080-6 /??	/06	/07	-	6	(6.9)	7.8	0.11	1	4.7	0.22	P	470
FN 2080-10 /??	/06	/07	-	10	(11.5)	4.5	0.06	1	4.7	0.22	Q	750
FN 2080-12 /??	/06	/07	-	12	(13.8)	3.25	0.05	1	4.7	0.22	Q	750
FN 2080-16 /??	/06	/07	/08	16	(18.4)	2.8	0.043	1	4.7	0.22	L2	1020

Additional specifications

Filter type	Maximum operating voltage VAC	Maximum operating voltage Hz	Operating frequency Hz	Hipot test voltage PN→E VAC	Hipot test voltage P→N VDC	MTBF Per Mil-HB-217F at 40°C 230V hours	Maximum leakage mA/phase
Standard types	250	50/60	DC to 400	2000	1700	350 000	0.4
B medical types (no Y capacitors)	250	50/60	DC to 400	2500	1700	350 000	0.002
A safety types (lower capacitance)	250	50/60	DC to 400	2500	1700	350 000	0.040

Electrical schematic

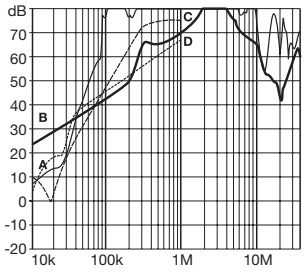


See tables for component values.

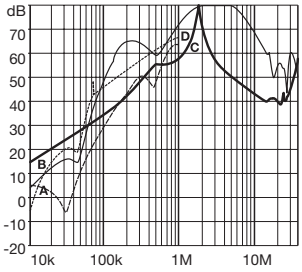
FN 2080 insertion loss

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

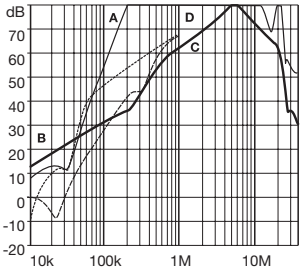
1A types



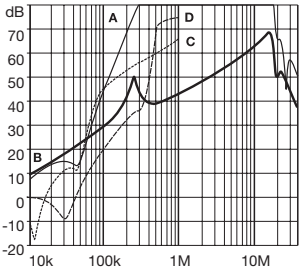
3A types



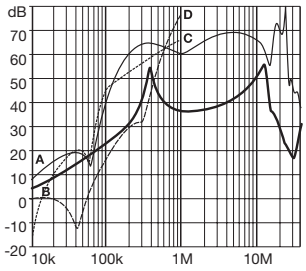
6A types



10A types (12A*)



16A types

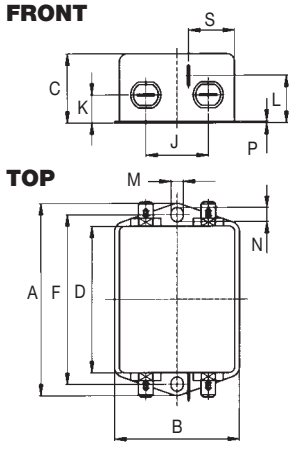


** attenuation performance of the 12A version is similar to the 10A component.*

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

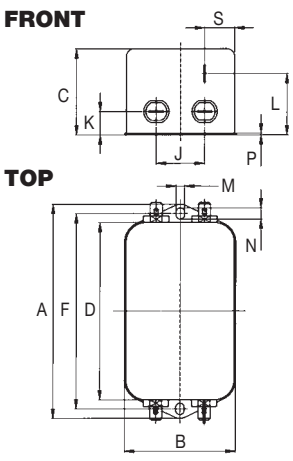


Housings K1, K2

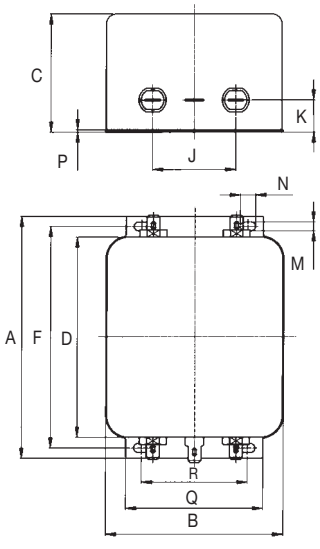
Housing style	P	Q	L2	Tol.* ± mm
A	113.5	156	119 ± 0.5	± 1
B	57.5		85.5	± 1
C	45.4 ± 1.2		57.6	± 1
D	94	130.5	98.5	± 1
F	103	143	109	± 0.3
J	25		40	± 0.2
K	12.4/8.4§		15.6/8.6§	± 0.5
L	32.4			± 0.5
M	4.4	5.3	4.4	± 0.1
N	6		7.4	± 0.1
P	0.9		1.2	± 0.1
Q			66	± 0.3
R			51	± 0.2
S	15.5/38§			± 0.5

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

* Measurements share this common tolerance unless otherwise stated.



Housings P, Q



Housing L2

All dimensions in mm; 1 inch = 25.4 mm