

General-purpose filter

FN 610

- Current ratings from 1 to 30A
 - General-purpose filtering performance
 - Optional medical version (B types)
 - Optional safety version (A types)
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- Nennströme von 1 bis 30A
 - Universelle Filterleistung
 - Für medizinische Geräte als Option (Typ B)
 - Optionale Sicherheitsversion (Typ A)
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- Courants de service de 1 à 30A
 - Filtrage universel
 - Version pour appareils médicaux en option (type B)
 - Version pour la sécurité en option (type A)



Filter selection table

Choose the family FN xxx with the required current rating and features, and add /?? to determine input/output (line/load) connection style. Example: FN 610-10/06 is a 10A filter with fast-on connections.

Approvals



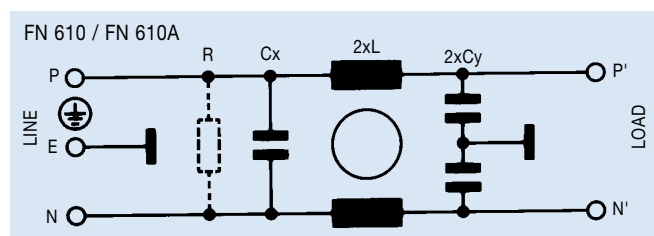
Family	Connections			Current ratings at 40°C (25°) A	Inductance L mH	Housing	Weight	
							/??	/07
FN 610 -1 /??		/06	/07	1 (1.15)	3	F1	55	65
FN 610 -3 /??		/06	/07	3 (3.4)	2	F1	60	70
FN 610 -6 /??		/06	/07	6 (6.9)	0.75	F1	60	70
FN 610 -10 /??		/06	/07	10 (11.5)	0.45	F2	85	95
FN 610 -20 /??		/06		20 (23)	0.48	J1	220	
FN 610 -30 /??	/03			30 (34)	0.61	L1	630	

Additional specifications

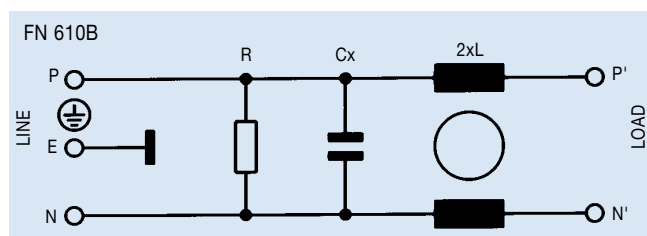
Filter type	Capacitance		Res. R MΩ	Maximum leakage μA/phase	Maximum operating voltage		Operating frequency Hz	Hipot test voltage	
	Cx nF	Cy nF			VAC	Hz		PN→E VAC	P→N VAC
Standard types	33	2.2		190	250	50/60	DC to 400	2000	1700
A types (safety)	33	0.47	1	40	250	50/60	DC to 400	2500	1700
B types (medical)	33		1	2	250	50/60	DC to 400	2500	1700

MTBF at 40°C, 230V, per Mil-HB-217F: 1,200,000 hours.

Electrical schematics



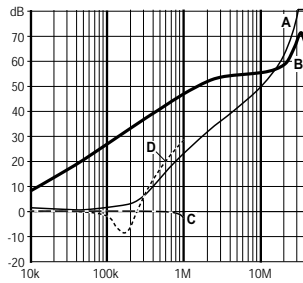
See tables for component values.



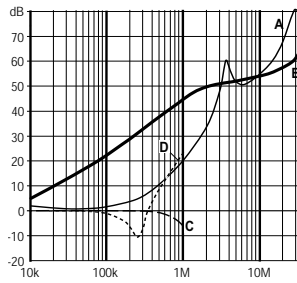
FN 610 insertion loss

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

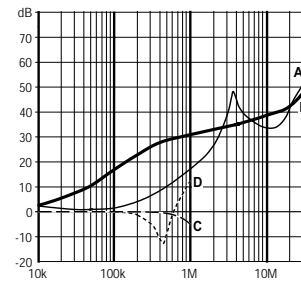
1 amp types



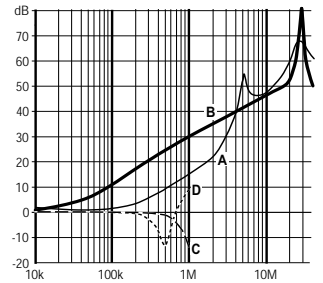
3 amp types



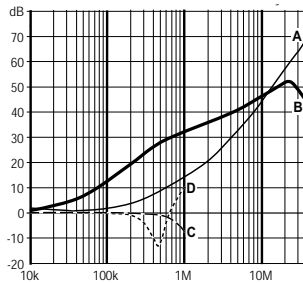
6 amp types



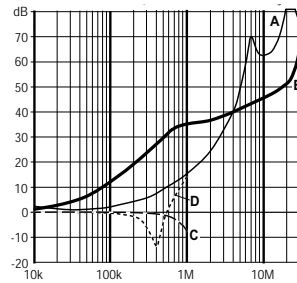
10 amp types



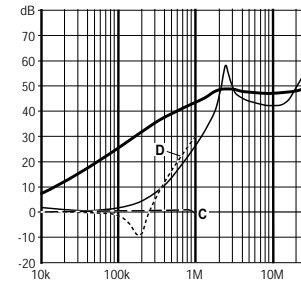
20 amp types



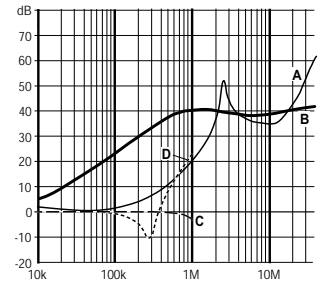
30 amp types



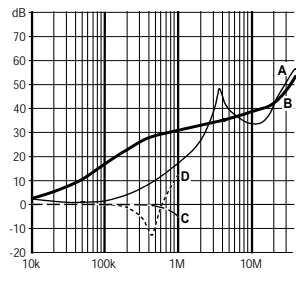
1 amp (A types)



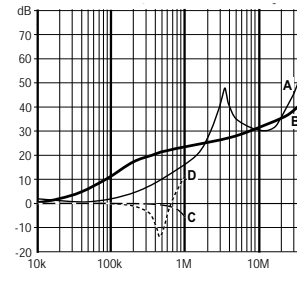
3 amp (A types)



6 amp (A types)



10 amp (A types)

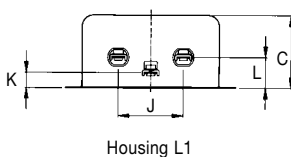


Mechanical data

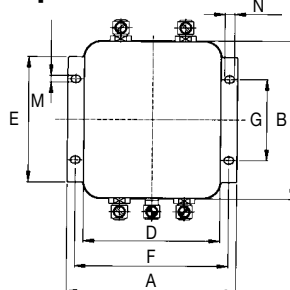
	FN 610 -1-3-6 F1	FN 610 -10 F2	FN 610 -20 J1	Tol.* mm		FN 610 -30 L1	Tol. mm
A	64		71	± 0.5	A	105	± 0.5
B	33		52.6	± 0.5	B	99.5	± 1
C	19	29		± 0.5	C	38	± 1
D	44		50.5 ± 1	± 0.3	D	84.5	± 1
F	54		61	± 0.2	E	79	± 0.5
J		21		± 0.5	F	95	± 0.2
K	9		14	± 0.5	G	51	± 0.1
L	15		20	± 0.5	J	40	± 0.5
M		5.3		± 0.1	K	9.5	± 0.5
N		6.3		± 0.1	L	19	± 0.5
Y		6		± 1	M	4.4	± 0.1
Z		140		+ 5	N	6	± 0.1

* Measurements share this common tolerance unless otherwise stated.

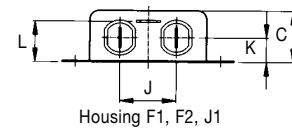
Front view



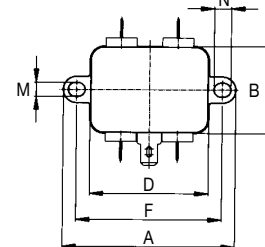
Top view



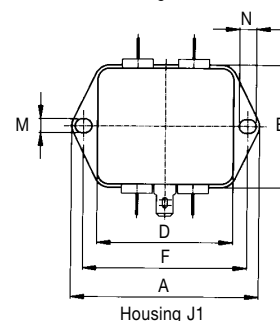
Front view



Top view



Housing F1, F2



Housing J1

All dimensions in mm; 1 inch = 25.4 mm

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[FN610-10-06](#) [FN610A-1-06](#) [FN610A-3-06](#) [FN610B-3-06](#) [FN610B-10-06](#) [FN610B-20-06](#) [FN610R-3-06](#)