

# General-purpose filter

# FN 612

- Current ratings from 1 to 100A
  - Good differential mode attenuation
  - Three choices of connector
  - Optional medical versions (B type)
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- Nennströme von 1 bis 100A
  - Gute differentielle Dämpfung
  - Drei Anschlußarten
  - Für medizinische Geräte als Option (Typ B)
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- Courants de service de 1 à 100A
  - Bonne atténuation en mode différentiel
  - Trois types de connexions
  - Version pour appareils médicaux en option (type B)



### 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 612-1/06 is a 1A filter with fast-on connections.

### Approvals



Family	Connections			Current ratings at 40°C (25°) A	Inductance L mH	Housing	Weight g			
							/03	/06	/10	/24
FN 612 -1 /??		/06		1 (1.15)	3	H1	80			
FN 612 -3 /??		/06		3 (3.4)	2	H2	115			
FN 612 -6 /??		/06		6 (6.9)	0.75	H2	115			
FN 612 -10 /??		/06		10 (11.5)	0.45	H2	115			
FN 612 -20 /??	/03	/06	/10	20 (23)	0.48	K2	290	260	290	
FN 612 -30 /??	/03		/10	30 (34)	0.61	L1	630		630	
FN 612 -80 /??			/24	80 (92)	0.2	L3				700
FN 612 -100 /??			/24	100 (115)	0.2	L2				1100

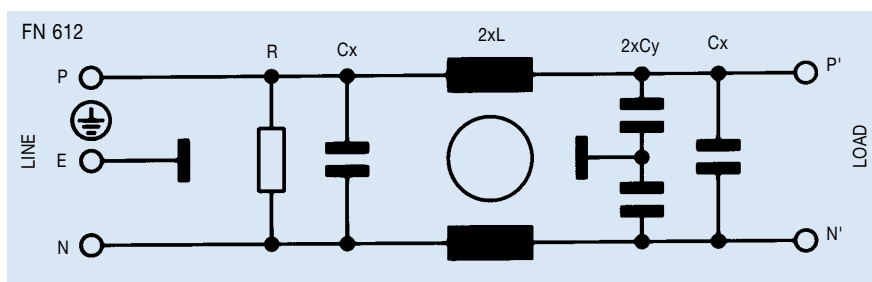
### Additional specifications

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 VDC
Standard types (up to 30A)	100	2.2	1	190	250	50/60	DC to 400	2000	1700
Standard types (80/100A)	470/1000	4.7	1*	450	250	50/60	DC to 400	2000	1700
B types (medical up to 30A)	100		1	2	250	50/60	DC to 400	2500	1700
B types (medical 80/100A)	470/1000		1*	2	250	50/60	DC to 400	2500	1700

MTBF at 40°C, 230V, per Mil-HB-217F: 800,000 hours.

\*470k for 100A types

### Electrical schematic

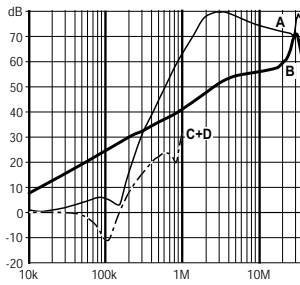


See tables for component values.

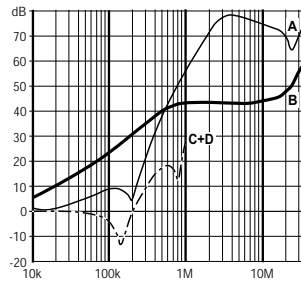
# FN 612 insertion loss

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

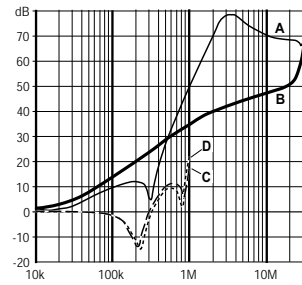
## 1 amp types



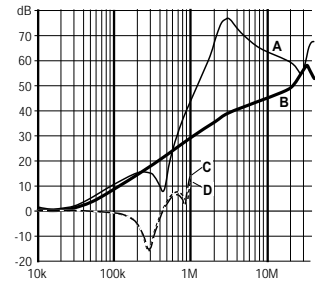
## 3 amp types



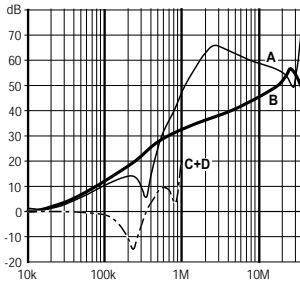
## 6 amp types



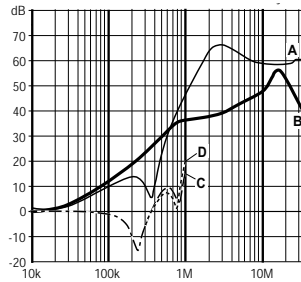
## 10 amp types



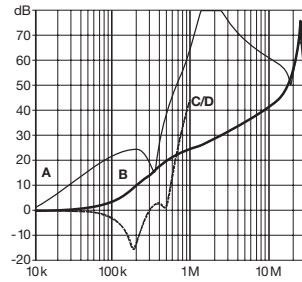
## 20 amp types



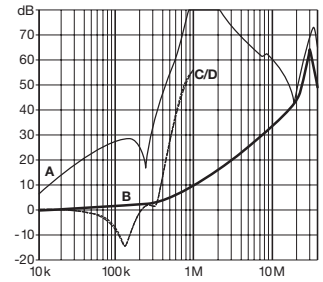
## 30 amp types



## 80 amp types



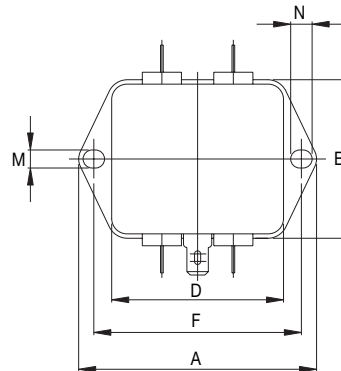
## 100 amp types



## Mechanical data

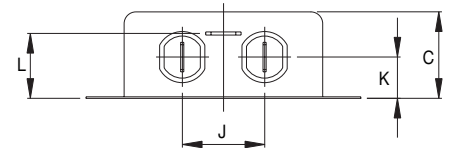
	FN 612 -1 H1	FN 612 -3-6-10 H2	FN 612 -20 K2	Tol. mm
<b>A</b>	71		85	± 0.5
<b>B</b>	46.6		54	± 1
<b>C</b>	22	29	40	± 1
<b>D</b>	50.5		65	± 1
<b>F</b>	61		75	± 0.2
<b>J</b>	21		27	± 0.5
<b>K</b>	10.5		12	± 0.5
<b>L</b>	16.5	24.5	29.5	± 0.5
<b>M</b>		5.3		± 0.1
<b>N</b>		6.3		± 0.1

### Top view



Housing H1, H2, K2

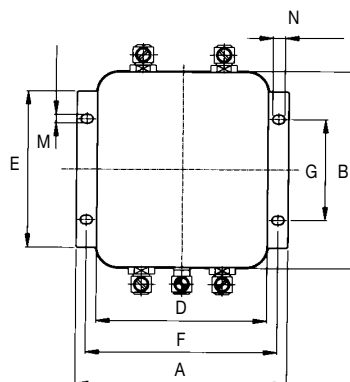
### Front view



Housing H1, H2, K2

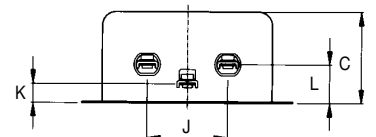
	FN 612 -30 L1	FN 612 -80 L3	FN 612 -100 L2	Tol. mm
<b>A</b>		105		± 0.5
<b>B</b>		99.5		± 1
<b>C</b>	38	45	57	± 1
<b>D</b>		84.5		± 1
<b>E</b>		79		± 0.5
<b>F</b>		95		± 0.2
<b>G</b>		51		± 0.1
<b>J</b>		40		± 0.5
<b>K</b>		9.5		± 0.5
<b>L</b>		19		± 0.5
<b>M</b>		4.4		± 0.1
<b>N</b>		6		± 0.1

### Top view



Housing L1, L2, L3

### Front view



Housing L1, L2, L3

All dimensions in mm; 1 inch = 25.4 mm