



Filters FN 761X



AC Feedthrough Filter

Approvals

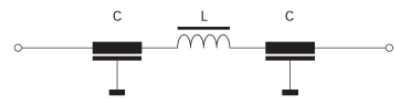


- IEC/EN 60939 approval
- Rated currents from 10 to 250A
- 5kV pulse test capability
- Class Y2 capacitor

Technical specifications

Capacitor class:	Y2
Flammability corresponding to:	UL 94V-2 or better
High potential test voltage:	3000VDC for 2 sec
Insulation resistance (100VDC after 60 sec):	< 0.33 μ F, R > 15,000M Ω
	> 0.33 μ F, τ > 5000s
Maximum continuous operating voltage:	300VAC, 50/60Hz (ENEC) 250VAC, 50/60Hz (UL) 1000VDC max.
MTBF @ 60°C/300V (Mil-HB-217F):	< 200A: > 675,000 hours
MTBF @ 60°C/300V (Mil-HB-217F):	\geq 200A: > 494,000 hours
Rated currents:	10 to 250 A @ 60°C max.
Temperature range (operation and storage):	-40°C to +100°C (40/100/21)

Typical electrical schematic



Feedthrough filters offer a high insertion loss across a broad band of frequencies from a few tens of kHz up to the GHz region. In general, feedthrough filters offer a higher level of EMI suppression than feedthrough capacitors of the same current rating. This is particularly relevant to applications where source impedance is smaller than 50 Ω . Different versions are available offering a wide selection on operating currents and performance levels. AC feedthrough filters are designed and approved for up to 300VAC 50/60Hz operation.

Features and benefits

- Very low internal series inductance.
- Very high self-resonant frequency.
- Self-healing dielectric.
- High quality and reliability.
- Through-bulkhead mounting.
- Anti-twist protection.
- Custom-specific or dual-versions on request.

Typical applications

- Power line filter for 110/240VAC power lines
- Increasing system and information security
- Power supplies
- Switching and cellular equipment
- Computer servers
- UPS power supplies
- Medical equipment
- Shielded rooms

Feedthrough selector table

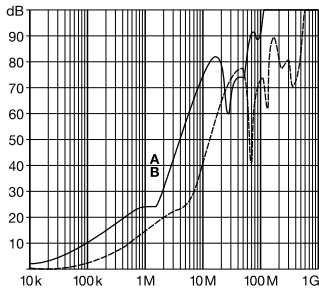
Feedthrough	Rated current @ 60°C [A]	Leakage current* @ 250VAC/50Hz [mA]	Capacitance** C [nF]	Inductance L @ 10kHz [nH]	DC resistance*** R @ 25°C [mΩ]	Weight [g]
FN 7611-10-M3	10	1.89	10	70	1.2	55
FN 7612-10-M3	10	8.86	47	70	1.52	70
FN 7611-16-M4	16	4.15	22	70	0.65	80
FN 7612-16-M4	16	18.85	100	70	0.92	90
FN 7611-32-M4	32	4.15	22	70	0.65	80
FN 7612-32-M4	32	18.85	100	70	0.92	90
FN 7611-63-M6	63	28.3	150	186	0.47	250
FN 7612-63-M6	63	88.6	470	124	0.53	500
FN 7612-100-M8	100	188	1000	124	0.23	750
FN 7611-250-M12 0	250	88.6	470	169	0.23	1086

* Tolerance +20%
 ** Tolerance ±20%
 *** Tolerance +15%

Typical filter attenuation

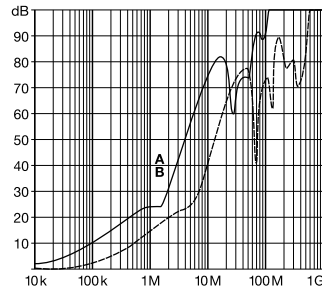
Full load, 50Ω system

10A types



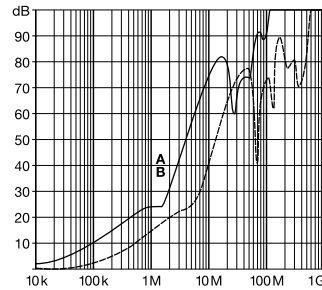
A = FN 7612-10-M3
 B = FN 7611-10-M3

16A types



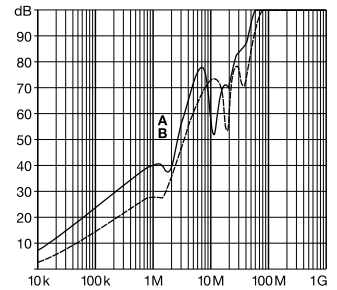
A = FN 7612-16-M4
 B = FN 7611-16-M4

32A types



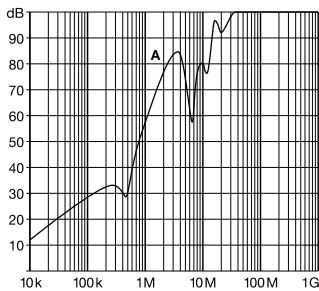
A = FN 7612-32-M4
 B = FN 7611-32-M4

63A types



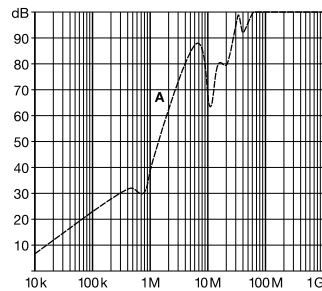
A = FN 7612-63-M6
 B = FN 7611-63-M6

100A types



A = FN 7612-100-M8

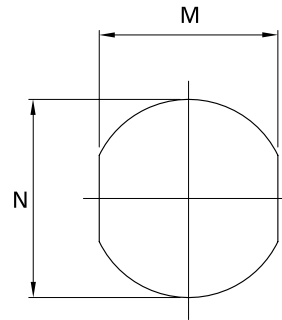
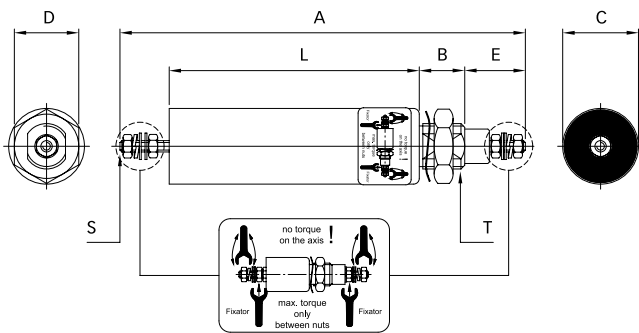
250A types



A = FN 7611-250-M12

Mechanical data

Panel cut out



Dimensions

	A	B	C	D	E	L	M	N	S	T
FN 7611-10-M3	107	12	20	17	16	66	10.3	Ø12.3	M3	M12x1
FN 7612-10-M3	140	12	20	17	16	99	10.3	Ø12.3	M3	M12x1
FN 7611-16-M4	116	14	25	22	18	69	14.3	Ø16.3	M4	M16x1
FN 7612-16-M4	148	14	25	22	18	101	14.3	Ø16.3	M4	M16x1
FN 7611-32-M4	116	14	25	22	18	69	14.3	Ø16.3	M4	M16x1
FN 7612-32-M4	148	14	25	22	18	101	14.3	Ø16.3	M4	M16x1
FN 7611-63-M6	173	16	32	27	26	105	18.3	Ø20.3	M6	M20x1
FN 7612-63-M6	189	19	54	41	26	118	24.3	Ø27.3	M6	M27x1.5
FN 7612-100-M8	227	19	54	41	32	144	24.3	Ø27.3	M8	M27x1.5
FN 7611-250-M12	267	19	54	41	46	160	29.3	Ø32.3	M12	M32x1.5
Tolerances					±2		±0.2			

All dimensions in mm; 1 inch = 25.4mm
 Tolerances according: ISO 2768-m / EN 22768-m

Recommended torque

	M3	M4	M6	M8	M12	M12x1	M16x1	M20x1	M27x1.5	M32x1.5
Terminal thread	0.5Nm	1.2Nm	2.5Nm	5Nm	11Nm					
Mounting thread						3Nm	4Nm	7Nm	12Nm	14Nm

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