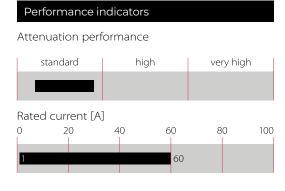


# **General Purpose AC/DC EMI Filter**



- Rated currents from 1 to 60 A
- General purpose filtering performance
- Optional medical versions (B type)
- Optional safety versions (A type)
- Optional enhanced performance versions
- Optional DC optimized versions





## **Family Technical Specifications**

Maximum continuous operating voltage	250 VAC, 50/60 Hz 250 VDC
Nominal operating voltage	230 VAC
High potential test voltage	P -> N 1100 VDC for 2 sec P -> PE 2000 VAC for 2 sec (equiv. cap <88 nF) P -> PE 2550 VDC for 2 sec (equiv. cap >88 nF) P -> PE 2500 VAC for 2 sec (B types)
Rated currents	1 to 60 A @ 40°C
Overvoltage category	II acc. IEC 60664-1
Pollution degree	2 acc. IEC 60664-1
Temperature range (operation and storage)	-25 °C to +100 °C (25/100/21)**
Altitude	2000m (above derating applies)**
Flammability corresponding to	Laces for -07 version: UL 94 VW-1 Terminal plastic for -06/-08 version: UL 94 V-0 Grommet for -07 version: UL 94 V-0
Certified to	UL 1283, CSA 22.2 No. 8 1986, IEC/EN 60939 (applies to AC and DC applications)
MTBF (Mil-HB-217F)	>1,250,000 h @ 40°C/230 V 3,200,000 h (B types) @ 40°C/230 V
Operating frequency	DC to 400 Hz

<sup>\*</sup> maximum RMS operating voltage at rated frequency or the maximum DC operating voltage \*\* for dedicated requests exceeding this specification (e.g. -40  $^{\circ}$ C or higher altitude) please contact your local Schaffner sales office

## Approvals & Compliances













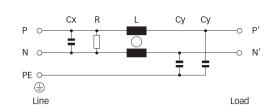
### **Features and Benefits**

- FN 2010 filters are designed for easy and fast chassis mounting
- FN 2010 B versions without capacitors to earth comply to 1MOP for ME (medical equipment) acc. IEC 60601-1
- FN 2010 A versions with low capacitance to earth for safety critical applications with necessity for low leakage currents
- FN 2010 filters are also available as enhanced performance and DC optimized versions. With higher attenuation in very compact housing (M, N1,N types)
- All filters provide a general purpose conducted attenuation performance, based on chokes with high saturation resistance and excellent thermal behavior
- FN 2010 filters can be used to cover a broad range of usage and they offer a good size/amperage ratio
- Various terminal options allow you to select the desired connection style

## **Typical Applications**

- Electrical and electronic equipment
- Consumer goods
- Household equipment
- Medical equipment
- Office automation equipment
- Datacom equipment

### Typical electrical schematic



## Articles

				Inductance	Capacitance		Input/Output connections (Nm)		. '		
	Article	Rated Current @ambient (A)	Leakage current IEC60939 (A)	LI	Cx1 (µF)	Cy1 (μF)	Resistance (kΩ)	Input terminal	Output terminal	Dist. stock	Read More
60	FN2010-10-06	10	0.66	0.8	0.1	4.7	1000	06 - faston 6.3x0.8/sold lug	06 - faston 6.3x0.8/sold lug		÷≡
25	FN2010-16-08	16	0.66	0.7	0.1	4.7	1000	08 - M4 screw terminal	08 - M4 screw terminal	0	<b>→</b> Ξ
<b>V9</b>	FN2010-20-06	20	0.66	0.6	0.1	4.7	1000	06 - faston 6.3x0.8/sold lug	06 - faston 6.3x0.8/sold lug	0	<b>→</b> Ξ
	FN2010-20-07	20	0.66	0.6	0.1	4.7	1000	07 - wire	07 - wire	0	<b>→</b> Ξ
N/II	FN2010-20-08	20	0.66	0.6	0.1	4.7	1000	08 - M4 screw terminal	08 - M4 screw terminal	<b>9</b>	<b>→</b> Ξ
25	FN2010-30-08	30	0.79	0.7	0.47	10	1000	08 - M4 screw terminal	08 - M4 screw terminal	<b>o</b>	<b>→</b> Ξ
म्ब	FN2010-3-06	3	0.66	2.5	0.1	4.7	1000	06 - faston 6.3x0.8/sold lug	06 - faston 6.3x0.8/sold lug	0	÷≡
A	FN2010-3-07	3	0.66	2.5	0.1	4.7	1000	07 - wire	07 - wire	0	<b>→</b> Ξ
2,	FN2010-60-24	60	0.79	1	1.5	10	330	24 - M6 screw terminal	24 - M6 screw terminal		<b>→</b> Ξ
1	FN2010-6-06	6	0.66	1	0.1	4.7	1000	06 - faston 6.3x0.8/sold lug	06 - faston 6.3x0.8/sold lug	0	<b>→</b> Ξ
99	FN2010-6-07	6	0.66	1	0.1	4.7	1000	07 - wire	07 - wire	0	<del>→</del> Ξ
	FN2010-10-07	10	0.66	0.8	0.1	4.7	1000	07 - wire	07 - wire		<b>→</b> Ξ
60	FN2010A-10-06	10	0.07	0.8	0.1	0.47	1000	06 - faston 6.3x0.8/sold lug	06 - faston 6.3x0.8/sold lug		<b>→</b> Ξ
	FN2010A-10-07	10	0.07	0.8	0.1	0.47	1000	07 - wire	07 - wire		<b>→</b> Ξ
99	FN2010A-1-06	1	0.07	12	0.1	0.47	1000	06 - faston 6.3x0.8/sold lug	06 - faston 6.3x0.8/sold lug		<b>→</b> 国
AT	FN2010A-1-07	1		12	0.1	0.47	1000	07 - wire	07 - wire	0	<b>→</b> Ξ
60	FN2010A-12-06	12	0.07	0.7	0.1	0.47	1000	06 - faston 6.3x0.8/sold lug	06 - faston 6.3x0.8/sold lug		<b>→Ξ</b>
1	FN2010A-16-06	16	0.07	0.7	0.1	0.47	1000	06 - faston 6.3x0.8/sold lug	06 - faston 6.3x0.8/sold lug	0	<b>→</b> Ξ
4	FN2010A-20-06	20	0.07	0.6	0.1	0.47	1000	06 - faston 6.3x0.8/sold lug	06 - faston 6.3x0.8/sold lug	0	<del>→</del> 国
15	FN2010A-20-08	20	0.07	0.6	0.1	0.47	1000	08 - M4 screw terminal	08 - M4 screw terminal	0	÷≡
25	FN2010A-30-08	30	0.07	0.7	0.47	0.47	1000	08 - M4 screw terminal	08 - M4 screw terminal	0	→ <b>Ξ</b>
9	FN2010A-3-06	3	0.07	2.5	0.1	0.47	1000	06 - faston 6.3x0.8/sold lug	06 - faston 6.3x0.8/sold lug	0	÷≡
9	FN2010-1-06	1	0.66	12	0.1	4.7	1000	06 - faston 6.3x0.8/sold lug	06 - faston 6.3x0.8/sold lug	0	÷≡
AT	FN2010A-3-07	3	0.07	0.8	0.1	0.47	1000	07 - wire	07 - wire	0	÷≡
4	FN2010A-6-06	6	0.07	1	0.1	0.47	1000	06 - faston 6.3x0.8/sold lug	06 - faston 6.3x0.8/sold lug		<b>→Ξ</b>

## Articles

Articles											
		Rated Current	Leakage current	Inductance	Capac Cx1	itance Cy1	Resistance	Input/Output o	connections (Nm) Output	Dist.	Read
	Article	@ambient (A)	IEC60939 (A)	LI	(μF)	Cy (μF)	(kΩ)	Input terminal	terminal	stock	More
AT	FN2010A-6-07	6	0.07	1	0.1	0.47	1000	07 - wire	07 - wire	▣	<del>→</del> Ξ
60	FN2010B-10-06	10	0	0.8	0.1	0	1000	06 - faston 6.3x0.8/sold lug	06 - faston 6.3x0.8/sold lug		<b>→</b> Ξ
9	FN2010B-1-06	1	0	12	0.1	0	1000	06 - faston 6.3x0.8/sold lug	06 - faston 6.3x0.8/sold lug	0	<b>→</b> Ξ
AT	FN2010B-1-07	1		12	0.1	0	1000	07 - wire	07 - wire	<b>©</b>	<b>→</b> Ξ
<b>1</b>	FN2010B-16-06	16	0	0.7	0.1	0	1000	06 - faston 6.3x0.8/sold lug	06 - faston 6.3x0.8/sold lug	<b>©</b>	<b>→</b> Ξ
90	FN2010B-20-06	20	0	0.6	0.1	0	1000	06 - faston 6.3x0.8/sold lug	06 - faston 6.3x0.8/sold lug	0	<b>→</b> Ξ
26	FN2010B-20-08	20	0	0.6	0.1	0	1000	08 - M4 screw terminal	08 - M4 screw terminal		<b>→</b> Ξ
2,	FN2010B-30-08	30	0	0.7	0.47	0	1000	08 - M4 screw terminal	08 - M4 screw terminal		<del>→</del> Ξ
AT	FN2010-1-07	1	0.66	12	0.1	4.7	1000	07 - wire	07 - wire	0	<b>→</b> Ξ
99	FN2010B-3-06	3	0	2.5	0.1	0	1000	06 - faston 6.3x0.8/sold lug	06 - faston 6.3x0.8/sold lug	0	<b>→</b> Ξ
AT	FN2010B-3-07	3	0	2.5	0.1	0	1000	07 - wire	07 - wire		<del>→</del> Ξ
2,5	FN2010B-60-24	60	0	1	1.5	0	330	24 - M6 screw terminal	24 - M6 screw terminal		<b>→</b> Ξ
99	FN2010B-6-06	6	0	1	0.1	0	1000	06 - faston 6.3x0.8/sold lug	06 - faston 6.3x0.8/sold lug		<b>→</b> Ξ
AT	FN2010B-6-07	6	0	1	0.1	0	1000	07 - wire	07 - wire		<b>→</b> Ξ
1	FN2010M-16-06	16	3.4	0.7	0.1	47	1000	06 - faston 6.3x0.8/sold lug	06 - faston 6.3x0.8/sold lug	0	<b>→</b> Ξ
25	FN2010M-16-08	16	3.4	0.7	0.1	47	1000	08 - M4 screw terminal	08 - M4 screw terminal	0	<b>→</b> Ξ
	FN2010M-20-06	20	3.4	0.6	0.1	47	1000	06 - faston 6.3x0.8/sold lug	06 - faston 6.3x0.8/sold lug		<del>→</del> Ξ
26	FN2010M-20-08	20	3.4	0.6	0.1	47	1000	08 - M4 screw terminal	08 - M4 screw terminal		<b>→</b> Ξ
60	FN2010N1-10-06	10	4.91	0.8	0.1	68	1000	06 - faston 6.3x0.8/sold lug	06 - faston 6.3x0.8/sold lug		<del>→</del> Ξ
60	FN2010-12-06	12	0.66	0.7	0.1	4.7	1000	06 - faston 6.3x0.8/sold lug	06 - faston 6.3x0.8/sold lug	0	<del>→</del> Ξ
99	FN2010N1-1-06	1	4.91	12	0.1	68	1000	06 - faston 6.3x0.8/sold lug	06 - faston 6.3x0.8/sold lug		<b>→</b> Ξ
60	FN2010N1-12-06	12	4.91	0.7	0.1	47	1000	06 - faston 6.3x0.8/sold lug	06 - faston 6.3x0.8/sold lug		<b>→</b> Ξ
94	FN2010N1-3-06	3	4.91	2.5	0.1	68	1000	06 - faston 6.3x0.8/sold lug	06 - faston 6.3x0.8/sold lug		<b>→</b> Ξ
99	FN2010N1-6-06	6	4.91	1	0.1	68	1000	06 - faston 6.3x0.8/sold lug	06 - faston 6.3x0.8/sold lug		<b>→</b> Ξ
2.	FN2010N-30-08	30	7.23	0.7	0.47	100	1000	08 - M4 screw terminal	08 - M4 screw terminal	<u> </u>	<b>→</b> Ξ

## Schaffner Group DATA SHEET 22. Mar 2024

## Articles

				Inductance	Capacitance		Capacitance			Input/Output connections (Nm)			
	Article	Rated Current @ambient (A)	Leakage current IEC60939 (A)	LI	Cx1 (μF)	Cy1 (μF)	Resistance (kΩ)	Input terminal	Output terminal	Dist. stock	Read More		
23	FN2010N-60-24	60	7.23	1	1.5	100	330	24 - M6 screw terminal	24 - M6 screw terminal		<del>→</del> Ξ		
	FN2010Z-6-06	10	0.66	0.8	0.1	68	1000	06 - faston 6.3x0.8/sold lug	06 - faston 6.3x0.8/sold lug		→ <b>三</b>		
A	FN2010-12-07	12	0.66	0.7	0.1	4.7	1000	07 - wire	07 - wire		<del>→</del> Ξ		
	FN2010-16-05	16	0.66	0.7	0.1	4.7	1000	05 - faston 6.3x0.8	05 - faston 6.3x0.8		<b>→</b> Ξ		
	FN2010-16-06	16	0.66	0.7	0.1	4.7	1000	06 - faston 6.3x0.8/sold lug	06 - faston 6.3x0.8/sold lug		<del>→</del> Ξ		
A	FN2010-16-07	16	0.66	0.7	0.1	4.7	1000	07 - wire	07 - wire		<b>→Ξ</b>		

## Headquarters, Global Innovation and Development

#### **Switzerland**

#### **Schaffner Group**

Industrie Nord Nordstrasse 11e Luterbach

+41 32 681 66 26

info@schaffner.com

find your local partner within Schaffner's global network <u>schaffner.com</u>

© 2024 Schaffner Group The content of this document has been carefully checked and understood. However, neither Schaffner nor its subsidiaries assume any liability whatsoever for any errors or inaccuracies of this document and the consequences thereof. Published specifica-tions are subject to change without notice. Product suitability for any area of application must ultimately be determined by the customer. In all cases, products must never be operated outside their published specifications. Schaffner does not guarantee the availability of all published products. This disclaimer shall be governed by substantive Swiss law and resulting disputes shall be settled by the courts at the place of business of Schaffner Holding AG. Latest publications and a complete disclaimer can be downloa-ded from the Schaffner website. All trademarks recognized.

## Sales and Application **Centers**

#### **Finland**

#### Schaffner Ov

Lohjanharjuntie 1109

08500

Lohja

+ 358 50 468 72 84

finlandsales@schaffner.com

#### Schaffner EMC S.A.S.

16-20 Rue Louis Rameau

95875

Bezons

+33 1 34 34 30 60

francesales@schaffner.com

#### **Schaffner Deutschland GmbH**

Ohiostr. 8 76149 Karlsruhe

+49 721 56910

germanysales@schaffner.com

#### Schaffner EMC S.r.l.

Via Ticino, 30 20900 Monza (MB) +39 039 21 41 070

italysales@schaffner.com

#### Schaffner EMC K.K.

ISM Sangenjaya 7F

1-32-12 Kamiuma Setagaya-ku

154-0011

Tokvo +81 3 5712 3650

japansales@schaffner.com

### **Singapore**

## Schaffner EMC Pte Ltd.

Blk 3015A Ubi Road 1 #05-09 Kampong Ubi Industrial Estate

408705

Singapore

+65 63773283

singaporesales@schaffner.com

#### Sweden

#### Schaffner EMC AB

Östermalmstrorg 1

114 42

Stockholm

+46 8 5050 2425

swedensales@schaffner.com

#### **Switzerland**

#### Schaffner EMV AG

Industrie Nord Nordstrasse 11e

4542

Luterbach

+41 32 681 66 26

switzerlandsales@schaffner.com

#### India

### Schaffner India Pvt. Ltd

Regus World Trade Centre WTC 22nd Floor Unit No 2238 Brigade Gateway Campus 26/1 Dr. Rajkumar Road

Malleshwaram (W)

560055

Bangalore

+91 8067935355

indiasales@schaffner.com

### **United Kingdom**

#### Schaffner Ltd.

Suite 1 Oakmede Place

Terrace Road RG42 4JF

Binfield +44 118 9770070

uksales@schaffner.com

## **United States**

## Schaffner EMC Inc.

52 Mayfield Avenue Edison, New Jersey

+1 732 225 9533

usasales@schaffner.com