# FN2090B-4-07

SAP Code: 820918



4 A EMC filter with wire leads		
<ul> <li>General</li> </ul>		
■ 1 Phase		



Chassis mount



### **Family Technical Specifications**

Rated voltage*	250 VAC, 50/60 Hz 250 VDC
Operating frequency	DC to 400 Hz
Altitude	2000m (above derating applies)**
Rated currents	4
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)
Temperature range (operation and storage)	-25°C to +100°C (25/100/21)**
Certified to	UL 1283, CSA 22.2 No. 8 1986, IEC/EN 60939 (applies to AC and DC applications)
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
Surge pulse protection (Z type)	Helps compliance to IEC61000-4-5 (Differential Mode only)
Overvoltage category	II acc. IEC 60664-1
Pollution degree	2 acc. IEC 60664-1

\* maximum RMS operating voltage at rated frequency or the maximum DC operating voltage \*\* for dedicated requests exceeding this specification (e.g. -40 °C or higher altitude) please contact your local Schaffner Sales office

### Approvals & Compliances



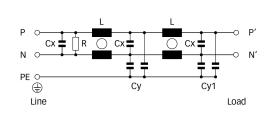
#### **Features and Benefits**

- FN 2090 two-stage filters are designed for easy and fast chassis mounting.
- FN 2090 B versions without capacitors to earth comply to 1MOP for ME (medical equipment) acc. IEC 60601-1
- FN 2090 A versions with low capacitance to earth for safety critical applications with a requirement for low leakage currents.
- FN 2090 filters offers an optimized filter range for enhanced performance AC and DC applications, in same compact size (KK, LL, NN types)
- All filters provide an exceptional conducted attenuation performance, based on chokes with high permeable core material.
- FN 2090 two-stage filters are designed for noisy applications requiring excellent filter performance.
- The higher inductivity offers increased attenuation performance with the same form factor as FN 2060 and FN 2080 series.
- All FN 2090 filters can be delivered with optional surge pulse protection (Z type).
- FN 2090 filters are also available as singlestage filters (FN 2030 series).
- Various terminal options allow you to select the desired connection style.

## **Typical Applications**

- Electrical and electronic equipment
- Consumer goods
- Household equipment
- Building automation
- Industrial applications
- Machinery
- Medical equipment
- Electronic data processing equipment
- Office automation and datacom equipment
- Various noisy applications requiring high filter
- performance

#### Typical electrical schematic



## **General Specification**

Voltage AC	250 (Volt)
Nominal Frequency	50
Rated Current @ambient	4
Ambient temperature [°C]	40

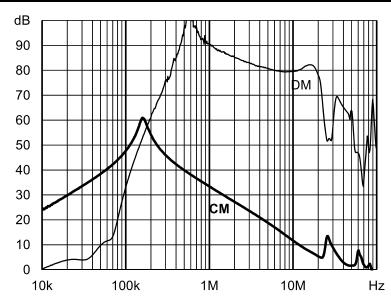
## **Electric Specification**

Input terminal	07 - wire
Output terminal	07 - wire
Resistance	470 (Kiloohm)

## Attenuation Specification

DM attenuation @ 150kHz [dB]	67 (Decibels)
Inductance L1 [µH]	14 (Millihenry)
Capacitance Cx1 [µF]	0.33 (Microfarad)

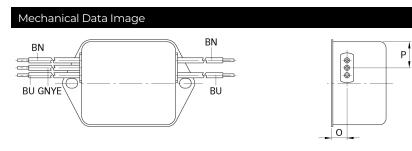
### Attenuation graph



## **Mechanic Specification**

Length [mm]	64.8
Width [mm]	49.8
Height [mm]	30.3
Volume [cm3]	98 (Cubic Centimeter)
NetWeight [g]	200 (Gram)
Power Loss [W]	6.4 (Watt)

### Schaffner schemes



### Dimensions

A [mm]	85
B [mm]	54
C [mm]	30.3
D [mm]	64.8
E [mm]	49.8
F [mm]	75
G [mm]	27
H [mm]	12.3
l [mm]	20.8
J [mm]	19.9
K [mm]	5.3
L [mm]	6.3
M [mm]	0.7
N [mm]	6.3 × 0.8
0 [mm]	8.3
P [mm]	14.9