

## FN2080-10-07

SAP Code: 800633



- Chassis mount
- 10 A EMC filter with wire leads
- General
- 1 Phase

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### **Family Technical Specifications**

Rated voltage*  250 VAC, 50/60 Hz 250 VDC  Description frequency  High potential test voltage  P -> PE 2000 VAC for 2 sec P -> PE 2500 VAC for 2 sec (B types) P -> N 1100 VDC for 2 sec P -> N 1100 VDC for 2 sec 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  Design corresponding to  UL 1283, CSA 22.2 No. 8 1986, IEC/EN 60939  UL 1283, CSA 22.2 No. 8 1986, IEC/EN 60939  UL 1283, CSA 22.2 No. 8 1986, IEC/EN 60939  Il acc. IEC 60664-1  2 acc. IEC 60664-1  Altitude  Altitude  Rated currents		
High potential test voltage  P -> PE 2000 VAC for 2 sec P -> PE 2500 VAC for 2 sec (B types) P -> N 1100 VDC for 2 sec  Temperature range (operation and storage)  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  UL 1283, CSA 22.2 No. 8 1986, IEC/EN 60939  UL 1283, CSA 22.2 No. 8 1986, IEC/EN 60939  Il acc. IEC 60664-1  Pollution degree  2 acc. IEC 60664-1  Altitude	Rated voltage*	, , , , , , , , , , , , , , , , , , ,
P -> PE 2500 VAC for 2 sec (B types) P -> N 1100 VDC for 2 sec  Temperature range (operation and storage)  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  UL 1283, CSA 22.2 No. 8 1986, IEC/EN 60939  UL 1283, CSA 22.2 No. 8 1986, IEC/EN 60939  Overvoltage category  Il acc. IEC 60664-1  Pollution degree  Altitude  2000m (above derating applies)**	Operating frequency	DC to 400 Hz
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  UL 1283, CSA 22.2 No. 8 1986, IEC/EN 60939  Overvoltage category  Pollution degree  2 acc. IEC 60664-1  Altitude  2000m (above derating applies)**	High potential test voltage	P -> PE 2500 VAC for 2 sec (B types)
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  UL 1283, CSA 22.2 No. 8 1986, IEC/EN 60939  Overvoltage category  Pollution degree  2 acc. IEC 60664-1  Altitude  Altitude	Temperature range (operation and storage)	-25°C to +100°C (25/100/21)**
Terminal plastic for -06/-08 version: UL 94 V-0 Grommet for -07 version: UL 94 V-0 UL 1283, CSA 22.2 No. 8 1986, IEC/EN 60939 Overvoltage category Il acc. IEC 60664-1 Pollution degree Altitude 2000m (above derating applies)**	Certified to	
Overvoltage category  Pollution degree  Altitude  Il acc. IEC 60664-1  2 acc. IEC 60664-1  2000m (above derating applies)**	Flammability corresponding to	Terminal plastic for -06/-08 version: UL 94 V-0
Pollution degree 2 acc. IEC 60664-1 Altitude 2000m (above derating applies)**	Design corresponding to	UL 1283, CSA 22.2 No. 8 1986, IEC/EN 60939
Altitude 2000m (above derating applies)**	Overvoltage category	II acc. IEC 60664-1
	Pollution degree	2 acc. IEC 60664-1
Rated currents 10	Altitude	2000m (above derating applies)**
	Rated currents	10

<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











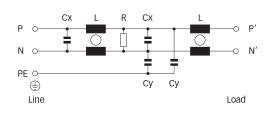
### **Features and Benefits**

- FN 2080 two-stage filters are designed for easy and fast chassis mounting
- FN 2080 B versions without capacitors to earth comply to 1MOP for ME (medical equipment) acc. IEC 60601-1
- FN 2808 A version with low capacitance to earth for safety critical applications with necessity for low leakage currents
- All filters provide a high conducted attenuation performance, based on chokes with high saturation resistance and excellent thermal behavior
- FN 2080 two-stage filters are designed with good low frequency attenuation
- FN 2080 filters are also available as single- stage filters
- FN 2080 filters are also available with two common mode choke configuration (FN 2070 series)
- Various terminal options allow you to select the desired connection style

### **Typical Applications**

- Electrical and electronic equipment
- Lighting applications (due to high differential mode inductance)
- Consumer goods
- Household equipment
- Building automation
- Industrial applications
- Machinery
- Medical equipment
- Electronic data processing equipment
- Office automation and datacom equipment
- Various noisy applications requiering good filter performance

#### Typical electrical schematic



## **General Specification**

Voltage AC	250 (Volt)
Nominal Frequency	50
Rated Current @ambient	10
Ambient temperature [°C]	40

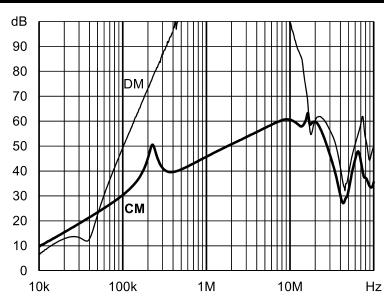
# **Electric Specification**

Leakage current (IEC60939) [mA]	0.66
Leakage current (Schaffner) [mA]	1.33
Input terminal	07 - wire
Output terminal	07 - wire
Resistance	220 (Kiloohm)

# **Attenuation Specification**

CM attenuation @ 150kHz [dB]	33 (Decibels)
DM attenuation @ 150kHz [dB]	33 (Decibels)
Inductance L1 [µH]	4.5 (Millihenry)
Inductance L2 [µH]	60
Capacitance Cx1 [µF]	1 (Microfarad)
Capacitance Cy1 [nF]	4.7 (Nanofarad)

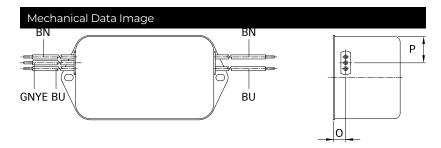




# **Mechanic Specification**

Length [mm]	130.5
Width [mm]	56
Height [mm]	45.4
Volume [cm3]	332 (Cubic Centimeter)
NetWeight [g]	640 (Gram)
Power Loss [W]	8.6 (Watt)

### Schaffner schemes



## **Dimensions**

A [mm]       157         B [mm]       57.5         C [mm]       45.4         D [mm]       130.5         E [mm]       56         F [mm]       143         G [mm]       25         H [mm]       12.4         I [mm]       32.5         J [mm]       5.3         K [mm]       5.3         L [mm]       6         M [mm]       6.3 × 0.8         O [mm]       8.4         P [mm]       18		
C [mm]       454         D [mm]       1305         E [mm]       56         F [mm]       143         G [mm]       25         H [mm]       124         I [mm]       32.5         J [mm]       15.5         K [mm]       5.3         L [mm]       6         M [mm]       1         N [mm]       63x0.8         O [mm]       84	A [mm]	157
D [mm]       130.5         E [mm]       56         F [mm]       143         G [mm]       25         H [mm]       12.4         I [mm]       32.5         J [mm]       15.5         K [mm]       5.3         L [mm]       6         M [mm]       1         N [mm]       6.3 x 0.8         O [mm]       8.4	B [mm]	57.5
E [mm]       56         F [mm]       143         G [mm]       25         H [mm]       124         I [mm]       32.5         J [mm]       15.5         K [mm]       5.3         L [mm]       6         M [mm]       1         N [mm]       6.3 x 0.8         O [mm]       8.4	C [mm]	45.4
F [mm]       143         G [mm]       25         H [mm]       124         I [mm]       32.5         J [mm]       15.5         K [mm]       5.3         L [mm]       6         M [mm]       1         N [mm]       6.3×0.8         O [mm]       8.4	D [mm]	130.5
G [mm]       25         H [mm]       12.4         I [mm]       32.5         J [mm]       15.5         K [mm]       5.3         L [mm]       6         M [mm]       1         N [mm]       6.3 x 0.8         O [mm]       8.4	E [mm]	56
H [mm]       124         I [mm]       32.5         J [mm]       15.5         K [mm]       5.3         L [mm]       6         M [mm]       1         N [mm]       6.3 x 0.8         O [mm]       8.4	F [mm]	143
I [mm]       32.5         J [mm]       15.5         K [mm]       5.3         L [mm]       6         M [mm]       1         N [mm]       6.3 x 0.8         O [mm]       8.4	G [mm]	25
J [mm]       15.5         K [mm]       5.3         L [mm]       6         M [mm]       1         N [mm]       6.3 x 0.8         O [mm]       8.4	H [mm]	12.4
K [mm]       5.3         L [mm]       6         M [mm]       1         N [mm]       6.3 x 0.8         O [mm]       8.4	I [mm]	32.5
L [mm]       6         M [mm]       1         N [mm]       6.3 x 0.8         O [mm]       8.4	J [mm]	15.5
M [mm]       1         N [mm]       6.3 x 0.8         O [mm]       8.4	K [mm]	5.3
N [mm] 6.3 x 0.8	L [mm]	6
<b>O</b> [mm]	M [mm]	1
	N [mm]	6.3 x 0.8
<b>P [mm]</b>	O [mm]	8.4
I I	P [mm]	18