

## FN2080B-12-06

SAP Code: 803930



- Chassis mount
- 12 A EMC filter with fast-ons
- 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  Il acc. IEC 60664-1  2 acc. IEC 60664-1  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  Altitude  2000m (above derating applies)**   | 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  Altitude  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  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  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 | 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  Altitude  Altitude  AC and DC applications)  Laces for -07 version: UL 94 VW-1  Terminal plastic for -06/-08 version: UL 94 V-0  Grommet for -07 version: UL 94 VW-1  It acc. IEC 60664-1  2 acc. IEC 60664-1  2000m (above derating applies)**   | 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 12   | Altitude                                  | 2000m (above derating applies)**                |
|   | Rated currents                            | 12  |

<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









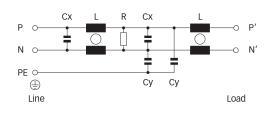
#### **Features and Benefits**

- 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**

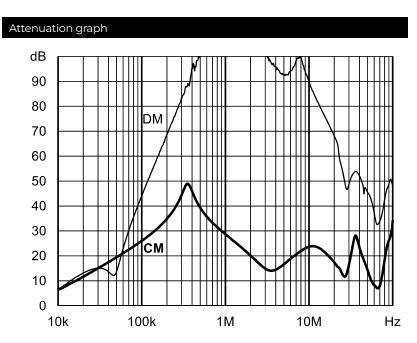
| Voltage AC               | 250 (Volt) |
|--------------------------|------------|
| Nominal Frequency        | 50         |
| Rated Current @ambient   | 12         |
| Ambient temperature [°C] | 40         |

# **Electric Specification**

| Input terminal  | 06 - faston 6.3x0.8/sold lug |
|-----------------|------------------------------|
| Output terminal | 06 - faston 6.3x0.8/sold lug |
| Resistance      | 220 (Kiloohm)                |

## **Attenuation Specification**

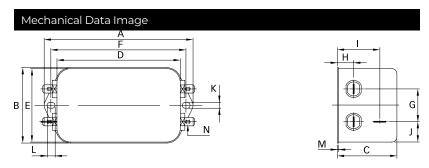
| DM attenuation @ 150kHz [dB] | 30 (Decibels)     |
|------------------------------|-------------------|
| Inductance L1 [µH]           | 3.25 (Millihenry) |
| Inductance L2 [µH]           | 50                |
| Capacitance Cx1 [µF]         | 1 (Microfarad)    |



# **Mechanic Specification**

| Length [mm]    | 130.5                  |
|----------------|------------------------|
| Width [mm]     | 56                     |
| Height [mm]    | 45.4                   |
| Volume [cm3]   | 332 (Cubic Centimeter) |
| NetWeight [g]  | 600 (Gram)             |
| Power Loss [W] | 12.3 (Watt)            |

## **Schaffner schemes**



### **Dimensions**

| A [mm] | 156       |
|--------|-----------|
| 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] | 15.5      |
| K [mm] | 5.3       |
| L [mm] | 6         |
| M [mm] | 1         |
| N [mm] | 6.3 × 0.8 |
| O [mm] | 8.4       |
| P [mm] | 18        |