# FN2030M-20-06

SAP Code: 817063



| 20 A EMC filter with fast-ons |  |  |
|-------------------------------|--|--|
| <ul> <li>General</li> </ul>   |  |  |
| ■ 1 Phase                     |  |  |



Chassis mount



### **Family Technical Specifications**

| Rated voltage*                            | 250 VAC, 50/60 Hz<br>250 VDC  |
|---|---|
| Operating frequency                       | DC to 400 Hz  |
| Rated currents                            | 20  |
| Surge pulse protection (Z type)           | Helps compliance to IEC61000-4-5 (Differential Mode only)   |
| High potential test voltage               | P -> N 1100 VDC for 2 sec<br>P -> PE 2000 VAC for 2 sec (equiv. cap <88 nF)<br>P -> PE 2550 VDC for 2 sec (equiv. cap >88 nF)<br>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<br>Terminal plastic for -06/-08 version: UL 94 V-0<br>Grommet for -07 version: UL 94 V-0  |
| Overvoltage category                      | II acc. IEC 60664-1   |
| Pollution degree                          | 2 acc. IEC 60664-1  |
| Altitude                                  | 2000m (above derating applies)**  |

\* 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



#### **Features and Benefits**

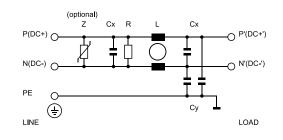
- FN 2030 filters are designed for easy and fast chassis mounting
- FN 2030 B versions without capacitors to earth comply to 1MOP for ME (medical equipment) acc. IEC 60601-1
- FN 2030 A versions with low capacitance to earth for safety critical applications with a requirement for low leakage currents
- FN 2030 filters offer an optimized filter range for high performance AC and DC applications, in same compact size (M, N1 types)
- All filters provide an exceptional conducted attenuation performance, based on chokes with high permeable core material and excellent thermal behavior
- The higher inductivity versus amperage offers increased attenuation performance with same form factor compared to FN 2010 and FN 2020 filter series
- All FN 2030 filters can be delivered with optional surge pulse protection (Z type).
- Various terminal options allow you to select the desired connection style

### **Typical Applications**

Electrical and electronic equipment

- Consumer goods
- Household equipment
- 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        | 60         |
| Rated Current @ambient   | 20         |
| Ambient temperature [°C] | 40         |

## **Electric Specification**

| Leakage current (IEC60939) [mA]  | 3.4                          |
|----------------------------------|------------------------------|
| Leakage current (Schaffner) [mA] | 6.76                         |
| Input terminal                   | 06 - faston 6.3x0.8/sold lug |
| Output terminal                  | 06 - faston 6.3x0.8/sold lug |
| Resistance                       | 330 (Kiloohm)                |

## Attenuation Specification

| CM attenuation @ 150kHz [dB] | 52 (Decibels)  |
|------------------------------|----------------|
| DM attenuation @ 150kHz [dB] | 32 (Decibels)  |
| Inductance L1 [µH]           | 4 (Millihenry) |
| Capacitance Cx1 [µF]         | 1 (Microfarad) |
| Capacitance Cy1 [nF]         | 47 (Nanofarad) |

## **Mechanic Specification**

| Length [mm]    | 64.8                   |
|----------------|------------------------|
| Width [mm]     | 49.8                   |
| Height [mm]    | 40.3                   |
| Volume [cm3]   | 130 (Cubic Centimeter) |
| NetWeight [kg] | 310 (Gram)             |
| Power Loss [W] | 4.6 (Watt)             |
|                |                        |

#### Schaffner schemes

### Dimensions

| A [mm] | 85        |
|--------|-----------|
| B [mm] | 54        |
| C [mm] | 40.3      |
| D [mm] | 64.8      |
| E [mm] | 49.8      |
| F [mm] | 75        |
| G [mm] | 27        |
| H [mm] | 12.3      |
| l [mm] | 29.8      |
| J [mm] | 11.4      |
| K [mm] | 5.3       |
| L [mm] | 6.3       |
| M [mm] | 0.7       |
| N [mm] | 6.3 × 0.8 |
|        |           |