

General Purpose AC/DC EMI Filter



- Rated currents from 1 to 60 A
- High differential-mode attenuation
- Optional medical version (B type)
- Optional safety version (A type)

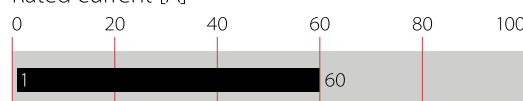


Performance indicators

Attenuation performance



Rated current [A]



Approvals & Compliances



Features and Benefits

- FN 2020 filters are designed for easy and fast chassis mounting
- FN 2020 B versions without capacitors to earth comply to 1MOP for ME (medical equipment) acc. IEC 60601-1
- FN 2020 A versions with low capacitance to earth for safety critical applications with necessity for low leakage currents
- All filters provide a general purpose conducted attenuation performance, based on chokes with high saturation resistance and excellent thermal behavior
- FN 2020 filters can be used to cover a broad range of usage and they offer a good size/ amperage ratio
- FN 2020 filters are also available as two- stage filters (FN 2060, FN 2070 series) for more noisy environment
- Various terminal options allow you to select the desired connection style

Family Technical Specifications

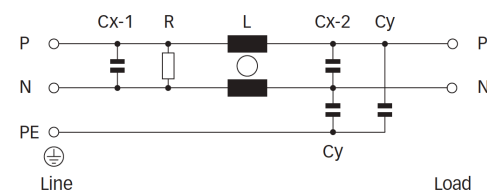
| | |
|--|---|
| Maximum continuous operating voltage | 250 VAC, 50/60 Hz 250 VDC |
| Nominal operating voltage | 230 VAC |
| High potential test voltage | P → N 1100 VDC for 2 sec (30 and 60 A types) P → PE 2000 VAC for 2 sec P → PE 2500 VAC for 2 sec (B types) P → N 760 VAC for 2 sec (1 to 20 A types) |
| Rated currents | 1 to 60 A @ 40°C |
| Overtoltage 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) |
| Design corresponding to | UL 1283, CSA 22.2 No. 8 1986, IEC/EN 60939 |
| MTBF (Mil-HB-217F) | >1,250,000 h @ 40°C/230 V 1,750,000 h (B types) @ 40°C/230 V |
| Operating frequency | DC to 400 Hz |

* 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












































































Typical Applications

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

























Typical electrical schematic



Articles

| | Article | Rated Current @ambient (A) | Leakage current IEC60939 (A) | Power Loss (W) | Inductance L1 | Capacitance | | Resistance (kΩ) | Input/Output connections (Nm) | | Dist. stock | Read More |
|---|---------------|----------------------------|------------------------------|----------------|---------------|-------------|----------|-----------------|-------------------------------|------------------------------|---|---|
| | | | | | | Cx1 (μF) | Cy1 (μF) | | Input terminal | Output terminal | | |
|  | FN2020-10-06 | 10 | 0.66 | 2.9 | 0.8 | 0.15 | 4.7 | 1000 | 06 - faston 6.3x0.8/sold lug | 06 - faston 6.3x0.8/sold lug |  |  |
|  | FN2020-10-07 | 10 | 0.66 | 2.9 | 0.8 | 0.15 | 4.7 | 1000 | 07 - wire | 07 - wire |  |  |
|  | FN2020-1-06 | 1 | 0.66 | 0.8 | 12 | 0.15 | 4.7 | 1000 | 06 - faston 6.3x0.8/sold lug | 06 - faston 6.3x0.8/sold lug |  |  |
|  | FN2020-1-07 | 1 | 0.66 | 0.8 | 12 | 0.15 | 4.7 | 1000 | 07 - wire | 07 - wire |  |  |
|  | FN2020-12-06 | 12 | 0.66 | 3.6 | 0.7 | 0.15 | 4.7 | 1000 | 06 - faston 6.3x0.8/sold lug | 06 - faston 6.3x0.8/sold lug |  |  |
|  | FN2020-12-07 | 12 | 0.66 | 3.6 | 0.7 | 0.15 | 4.7 | 1000 | 07 - wire | 07 - wire |  |  |
|  | FN2020-16-06 | 16 | 0.66 | 2.5 | 0.65 | 0.15 | 4.7 | 1000 | 06 - faston 6.3x0.8/sold lug | 06 - faston 6.3x0.8/sold lug |  |  |
|  | FN2020-16-07 | 16 | 0.66 | 2.5 | 0.65 | 0.15 | 4.7 | 1000 | 07 - wire | 07 - wire |  |  |
|  | FN2020-16-08 | 16 | 0.66 | 2.5 | 0.65 | 0.15 | 4.7 | 1000 | 08 - M4 screw terminal | 08 - M4 screw terminal |  |  |
|  | FN2020-20-06 | 20 | 0.66 | 3.8 | 0.6 | 0.15 | 4.7 | 1000 | 06 - faston 6.3x0.8/sold lug | 06 - faston 6.3x0.8/sold lug |  |  |
|  | FN2020-20-08 | 20 | 0.66 | 3.8 | 0.6 | 0.15 | 4.7 | 1000 | 08 - M4 screw terminal | 08 - M4 screw terminal |  |  |
|  | FN2020-30-08 | 30 | 0.79 | 6.3 | 0.67 | 0.47 | 10 | 470 | 08 - M4 screw terminal | 08 - M4 screw terminal |  |  |
|  | FN2020-3-06 | 3 | 0.66 | 1.2 | 2.5 | 0.15 | 4.7 | 1000 | 06 - faston 6.3x0.8/sold lug | 06 - faston 6.3x0.8/sold lug |  |  |
|  | FN2020-3-07 | 3 | 0.66 | 1.2 | 2.5 | 0.15 | 4.7 | 1000 | 07 - wire | 07 - wire |  |  |
|  | FN2020-60-24 | 60 | 0.79 | 14.7 | 1 | 1.5 | 10 | 220 | 24 - M6 screw terminal | 24 - M6 screw terminal |  |  |
|  | FN2020-6-06 | 6 | 0.66 | 1.5 | 1 | 0.15 | 4.7 | 1000 | 06 - faston 6.3x0.8/sold lug | 06 - faston 6.3x0.8/sold lug |  |  |
|  | FN2020-6-07 | 6 | 0.66 | 1.5 | 1 | 0.15 | 4.7 | 1000 | 07 - wire | 07 - wire |  |  |
|  | FN2020A-10-06 | 10 | 0.07 | 2.9 | 0.8 | 0.15 | 0.47 | 1000 | 06 - faston 6.3x0.8/sold lug | 06 - faston 6.3x0.8/sold lug |  |  |
|  | FN2020A-10-07 | 10 | 0.07 | 2.9 | 0.8 | 0.15 | 0.47 | 1000 | 07 - wire | 07 - wire |  |  |
|  | FN2020A-20-06 | 20 | 0.07 | 3.8 | 0.6 | 0.15 | 0.47 | 1000 | 06 - faston 6.3x0.8/sold lug | 06 - faston 6.3x0.8/sold lug |  |  |
|  | FN2020A-20-08 | 20 | 0.07 | 3.8 | 0.6 | 0.15 | 0.47 | 1000 | 08 - M4 screw terminal | 08 - M4 screw terminal |  |  |
|  | FN2020A-30-08 | 30 | 0.07 | 6.3 | 0.67 | 0.47 | 0.47 | 470 | 08 - M4 screw terminal | 08 - M4 screw terminal |  |  |
|  | FN2020A-60-24 | 60 | 0.07 | 14.7 | 1 | 1.5 | 0.47 | 220 | 24 - M6 screw terminal | 24 - M6 screw terminal |  |  |
|  | FN2020B-10-06 | 10 | 0 | 2.9 | 0.8 | 0.15 | | 1000 | 06 - faston 6.3x0.8/sold lug | 06 - faston 6.3x0.8/sold lug |  |  |
|  | FN2020B-1-06 | 1 | 0 | 0.8 | 12 | 0.15 | | 1000 | 06 - faston 6.3x0.8/sold lug | 06 - faston 6.3x0.8/sold lug |  |  |

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|  | FN2020B-16-06 | 16 | 0 | 2.5 | 0.65 | 0.15 | | 1000 | 06 - faston 6.3x0.8/sold lug | 06 - faston 6.3x0.8/sold lug |  |  |
|  | FN2020B-20-06 | 20 | 0 | 3.8 | 0.6 | 0.15 | | 1000 | 06 - faston 6.3x0.8/sold lug | 06 - faston 6.3x0.8/sold lug |  |  |
|  | FN2020B-20-08 | 20 | 0 | 3.8 | 0.6 | 0.15 | | 1000 | 08 - M4 screw terminal | 08 - M4 screw terminal |  |  |
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|  | FN2020B-60-24 | 60 | 0 | 14.7 | 1 | 1.5 | | 220 | 24 - M6 screw terminal | 24 - M6 screw terminal |  |  |
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