EMC Filter
FL-B03D Series

**FEATURES**
- Compact size
- Restrain line disturb of DC power source
- The attenuation coefficient of frequency meet 20dB
- Cost-effective
- Low Temperature Rise
- Mounting: PCB mounting, chassis mounting with screw terminals, DIN-Rail mounting

RoHS
This model applies to analog circuit which is noise-sensitive. Put FL-B03D on to the input of module can ensure EMI performance by a big margin.

**Selection Guide**

<table>
<thead>
<tr>
<th>Model</th>
<th>Input Voltage Range (VDC)</th>
<th>Nominal Current (A)(max)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FI-B03D</td>
<td>0~80</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Note: series with suffix "A2S" are chassis mounting, with suffix "A4S" are DIN-Rail mounting, for example FI-B03DA4S.

<table>
<thead>
<tr>
<th>General Specifications</th>
<th>Min.</th>
<th>Typ.</th>
<th>Max.</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Temperature</td>
<td>-40</td>
<td>--</td>
<td>85</td>
<td>°C</td>
</tr>
<tr>
<td>Storage Temperature</td>
<td>-55</td>
<td>--</td>
<td>125</td>
<td>°C</td>
</tr>
<tr>
<td>Storage Humidity</td>
<td>5</td>
<td>--</td>
<td>95</td>
<td>%</td>
</tr>
<tr>
<td>Casing Temperature Rise</td>
<td>Nominal Current</td>
<td>--</td>
<td>--</td>
<td>40</td>
</tr>
<tr>
<td>Withstand Voltage to GND</td>
<td>--</td>
<td>--</td>
<td>1500</td>
<td>VDC</td>
</tr>
<tr>
<td>D-C-R</td>
<td>Input - Output</td>
<td>--</td>
<td>30</td>
<td>--</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>General Specifications</th>
<th>Casing Material</th>
<th>Aluminum Alloy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Package Dimensions</td>
<td>Horizontal package</td>
<td>25.40x25.40x11.70 mm</td>
</tr>
<tr>
<td></td>
<td>A2S wiring package</td>
<td>76.00x31.50x21.20 mm</td>
</tr>
<tr>
<td></td>
<td>A4S rail package</td>
<td>76.00x31.50x25.80 mm</td>
</tr>
<tr>
<td>Weight</td>
<td>Horizontal package/A2S wiring package/A4S rail package</td>
<td>15g/35g/55g(Typ)</td>
</tr>
</tbody>
</table>

**Frequency Impedance Specifications**

<table>
<thead>
<tr>
<th>Item</th>
<th>Test Conditions</th>
<th>Min.</th>
<th>Typ.</th>
<th>Max.</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Im</td>
<td>150KHz~100 MHz</td>
<td>--</td>
<td>20</td>
<td>--</td>
<td>dBΩ</td>
</tr>
</tbody>
</table>

**Devise Standard**

FI-B03D can ensure MORNSUN DC/DC converter module with 3A input current EMI meet EN 55022 Class B.
EMC Filter
FI-B03D Series

Impedance Specifications

![Impedance graph](image)

**Design Reference**

1. Inside schematic

   ![Inside schematic](image)

2. Typical application

   ![Typical application](image)

   **Note:** Due to the difference of the power module input current, the fuse of the recommended values, please refer to the Technical Manual for the power module.

3. For more information Please find the application notes on [www.mornsun-power.com](http://www.mornsun-power.com)

**FI-B03D Dimensions and Recommended Layout**

![Dimensions and layout](image)

- **Note:**
  - Unit: mm (inch)
  - Pin diameter tolerances: ±0.20 (±0.004)
  - Pin height tolerances: ±0.50 (±0.020)
  - General tolerances: ±0.25 (±0.010)
**EMC Filter**

**FI-B03D Series**

**FI-B03DA2S Dimensions**

![Dimensions Diagram]

**Note:**
- Unit:mm/inch
- Wire range: 24–12 AWG
- General tolerances: ±0.50 (±0.020)

**FI-B03DA4S Dimensions**

![Dimensions Diagram]

**Note:**
- Unit:mm/inch
- Wire range: 24–12 AWG
- General tolerances: ±0.50 (±0.020)

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**MORNSUN Guangzhou Science & Technology Co., Ltd.**

Address: No. 5, Kehui St. 1, Kehui Development Center, Science Ave., Guangzhou Science City, Luogang District, Guangzhou, P. R. China

Tel: 86-20-38601850-8801  Fax: 86-20-38601272  E-mail: info@mornsun.cn

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1. Packing Information please refer to ‘Product Packing Information’. The Packing bag number of Horizontal package: 58220003, the Packing bag number of A2S/A4S package: 58220022;
2. Unless otherwise specified, data in this datasheet should be tested under the conditions of Ta=25°C, humidity<75%;
3. All index testing methods in this datasheet are based on our Company’s corporate standards;
4. The performance indexes of the product models listed in this manual are as above, but some indexes of non-standard model products will exceed the above-mentioned requirements, and please directly contact our technicians for specific information;
5. We can provide product customization service;
6. Specifications of this product are subject to changes without prior notice.