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IEC inlet filters FN 321

Compact IEC inlet filter





- Rated currents up to 10A
- High attenuation performance
- Reduces interference susceptibility

Approvals







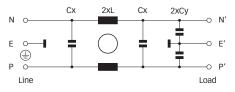




Technical specifications

| Maximum continuous operating voltage: | 250VAC, 50/60Hz |
|--|--|
| Operating frequency: | dc to 400Hz |
| Rated currents: | 1 to 10A @ 50°C max. |
| High potential test voltage: | P -> E 2000VAC for 2 sec |
| | P -> N 760VAC for 2 sec |
| Protection category: | IP40 according to IEC 60529 |
| Temperature range (operation and storage): | -25°C to +85°C (25/85/21) |
| Design corresponding to: | UL 1283, CSA 22.2 No. 8 1986, EN 60939 |
| Flammability corresponding to: | UL 94V-2 or better |
| MTBF @ 40°C/230V (Mil-HB-217F): | 800,000 hours |
| | |

Typical electrical schematic



The FN 321 IEC inlet filter combines an IEC inlet and mains filter with excellent filter attenuation in a small form factor. Choosing the FN 321 compact power entry module brings you the rapid availability of a standard filter associated with the necessary safety acceptances. Standard IEC connector filters are a practical solution helping you to pass EMI system approval in a short time. A wide selection on current ratings and output connections helping you to select the desired solution for your application.

Features and benefits

- High conducted attenuation performance, based on chokes with high saturation resistance and excellent thermal behavior.
- Rear or front flange mounting.
- Faston or solder terminal connections.
- Rated currents up to 10A.
- Custom-specific versions are available on request.

Typical applications

- Portable electrical and electronic equipment
- Small to medium-sized machines and household equipment
- Single-phase power supplies, switch mode power supplies
- Test and measurement equipment
- EDP and office equipment
- Rack mounting equipment

Filter selection table

| Filter | Rated current | Leakage current* | Inductance | Capa | acitance | Resistance | Output conr | ections | Weight |
|-----------|---------------|------------------|------------|------|----------|------------|-------------|---------|--------|
| | @ 40°C (25°C) | @ 230VAC/50Hz | L | Сх | Су | R | | | |
| | | | | | | | 0 | 0 | |
| | [A] | [µA] | [mH] | [nF] | [nF] | [kΩ] | | 77 | [g] |
| FN 321-1 | 1 (1.2) | 560 | 10 | 47 | 3.3 | | -01 | -05 | 65 |
| FN 321-3 | 3 (3.5) | 560 | 3.1 | 47 | 3.3 | | -01 | -05 | 65 |
| FN 321-6 | 6 (7.2) | 560 | 1.2 | 47 | 3.3 | | -01 | -05 | 65 |
| FN 321-10 | 10 (11.6) | 560 | 0.36 | 47 | 3.3 | | -01 | -05 | 65 |

^{*} Max. leakage under normal operating conditions. Note: if the neutral line is interrupted, worst case leakage could reach twice this level.

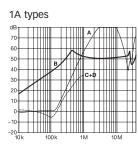
Product selector

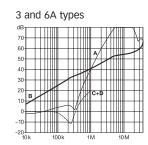


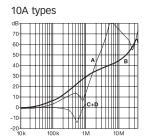
For example: FN 321-6-01, FN 321-10-05

Typical filter attenuation

Per CISPR 17; A = $50\Omega/50\Omega$ sym; B = $50\Omega/50\Omega$ asym; C = $0.1\Omega/100\Omega$ sym; D = $100\Omega/0.1\Omega$ sym

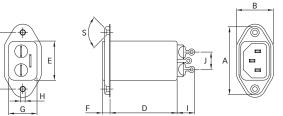




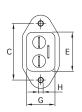


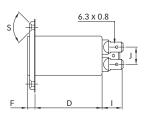
Mechanical data

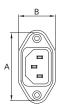
Connection style -01



Connection style -05







Panel cut out



Dimensions

| | FN 321 Connection style -01 | FN 321 Connection style -05 | Tolerances | |
|---|--------------------------------|--------------------------------|------------|--|
| A | 51.5 | 51.5 | ±0.5 | |
| B | 26 | 26 | ±0.3 | |
| C | 40 | 40 | ±0.3 | |
| D | 46.6 | 46.6 | ±0.3 | |
| E | 27.9 | 27.9 | +0.5 | |
| F | 5.5 | 5.5 | ±0.3 | |
| G | 20.1 | 20.1 | | |
| Н | Ø3.3 | Ø3.3 | | |
| I | 11.4 | 13.4 | | |
| J | 10.9 | 10.9 | ±0.5 | |
| M | R ≤ 3 | R ≤ 3 | | |
| N | 21.5 | 21.5 | ±0.2 | |
| P | 28.5 | 28.5 | ±0.2 | |
| R | M3 | M3 | | |
| S | 90° | 90° | | |

All dimensions in mm; 1 inch = 25.4mm Tolerances according: ISO 2768 / EN 22768