

NEF 1-10 - EMC filter

2788977

<https://www.phoenixcontact.com/us/products/2788977>

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Mains interference filter, with universal foot for mounting on NS 32 and NS 35/7.5, nominal current: 10 A

Your advantages

- Effective high-frequency interference attenuation with current-coupled coils and X and Y capacitors
- Space-saving and cost-saving with a compact design
- Versatile in use with universal circuit design

Commercial data

| | |
|--------------------------------------|---------------|
| Item number | 2788977 |
| Packing unit | 5 pc |
| Minimum order quantity | 1 pc |
| Sales key | CL06 |
| Product key | CLC111 |
| GTIN | 4017918072001 |
| Weight per piece (including packing) | 186.7 g |
| Weight per piece (excluding packing) | 162.67 g |
| Customs tariff number | 85363010 |
| Country of origin | DE |

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Technical data

Product properties

| | |
|---------------------|----------------------------|
| Product type | EMC filters |
| Product family | NEF |
| Type | DIN rail module, one-piece |
| Number of positions | 2 |

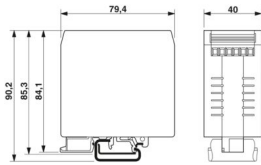
Electrical properties

| | |
|-------------------------|----------------|
| Nominal frequency f_N | 50 Hz (60 Hz) |
| Rated voltage | 240 V AC (L-N) |

Connection data

| | |
|----------------------------------|---|
| Connection method | Screw connection |
| Screw thread | M3 |
| Tightening torque | 0.8 Nm |
| Conductor cross-section flexible | 0.2 mm ² ... 2.5 mm ² |
| Conductor cross-section rigid | 0.2 mm ² ... 4 mm ² |
| Conductor cross-section AWG | 24 ... 12 |

Dimensions

| | |
|---------------------|--|
| Dimensional drawing |  |
| Width | 40 mm |
| Height | 79.4 mm |
| Depth | 84.1 mm |

Material specifications

| | |
|--|------------------|
| Color | black (RAL 9005) |
| Flammability rating according to UL 94 | V-2 |
| Housing material | PA |

Mechanical properties

Mechanical data

| | |
|-----------------|----|
| Open side panel | No |
|-----------------|----|

Protective circuit

| | |
|--|-----------------------------------|
| Direction of action | 1L-N & N-PE |
| Maximum continuous operating voltage U_C | 264 V AC (L-N) 264 V AC (L-PE) |

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| | |
|--|---------------------------------------|
| Nominal frequency f_N | 50 Hz (60 Hz) |
| Rated current | 10 A (40 °C) |
| Operating effective current I_C at U_C | ≤ 0.25 mA |
| Protective conductor current I_{PE} | ≤ 0.5 mA |
| Input attenuation aE, sym. | > 80 dB (50 Ω / 1 MHz) |
| Input attenuation aE, asym. | > 40 dB (50 Ω / 1 MHz) |
| Capacity | 2x 470 nF (X2) |
| | 2x 2.2 nF (Y2) |
| Inductivity in series | 2x 1.8 mH (with current compensation) |
| Max. required back-up fuse | 10 A (gL) |

Filter data

| | |
|----------------------|--------------|
| Discharge resistance | 1 M Ω |
|----------------------|--------------|

Environmental and real-life conditions

Ambient conditions

| | |
|---------------------------------|-------------------------|
| Degree of protection | IP20 |
| Ambient temperature (operation) | -25 °C ... 100 °C (HMF) |

Standards and regulations

Air clearances and creepage distances

| | |
|--------------------------|--------------------------|
| Standards/regulations | IEC 60664-1 / VDE 0110-1 |
| Standards/specifications | IEC 60939-2 |
| Standards/specifications | EN 60939-2 |

Mounting

| | |
|---------------|-----------------|
| Mounting type | DIN rail: 35 mm |
|---------------|-----------------|

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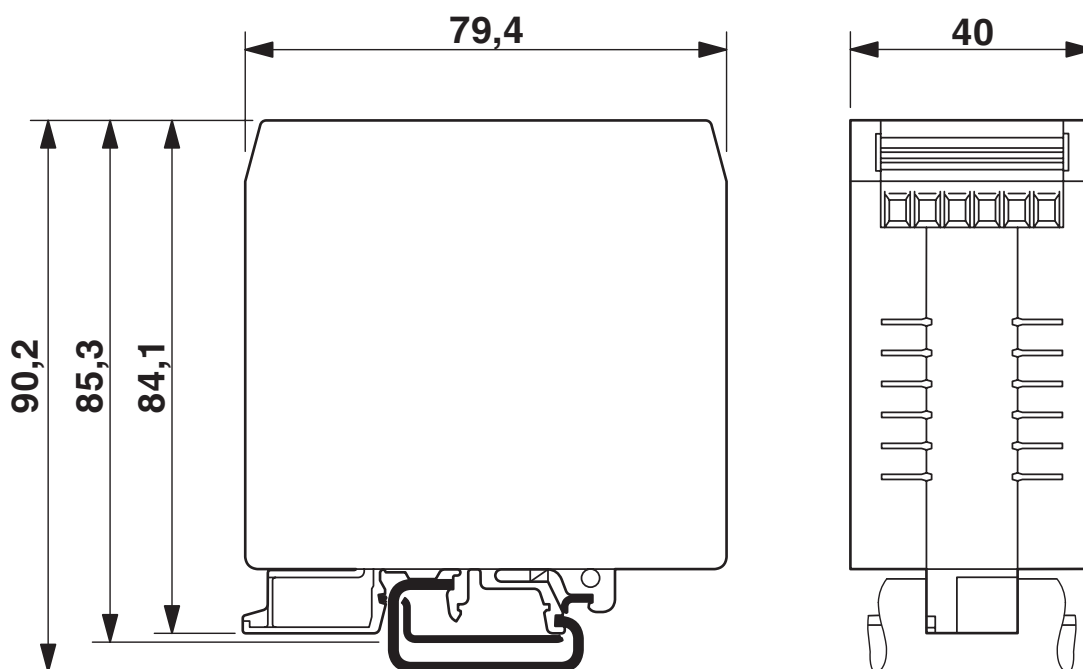
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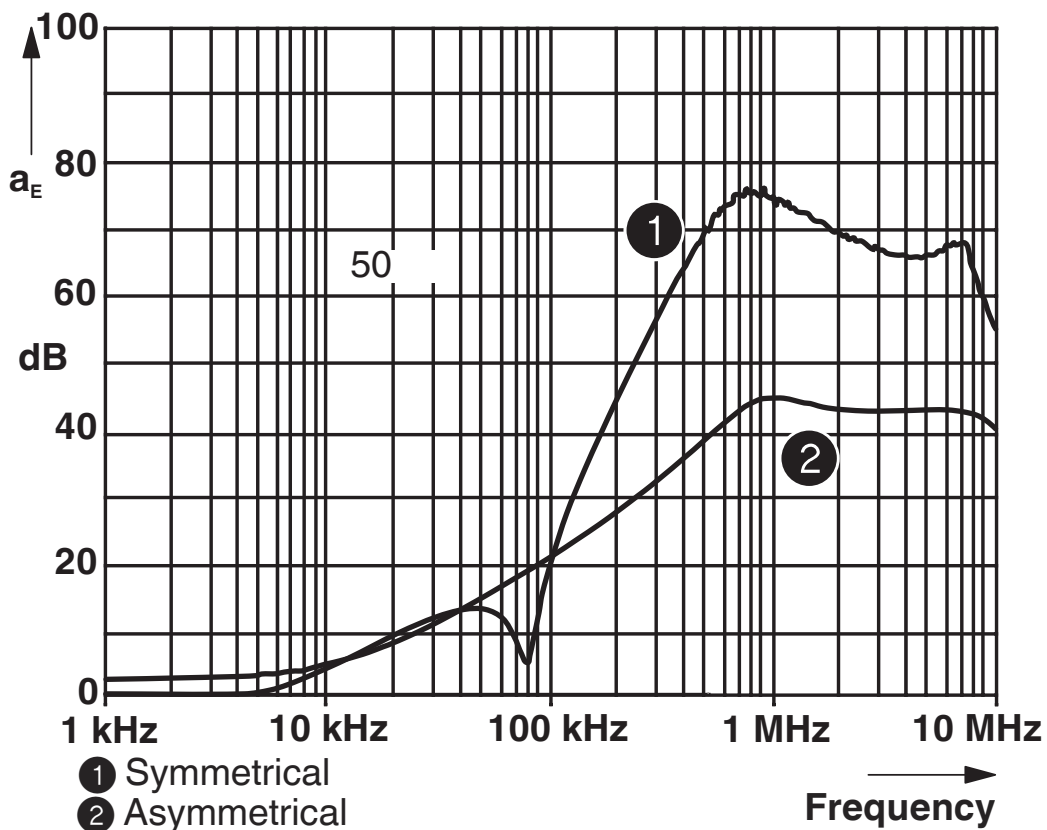


Drawings

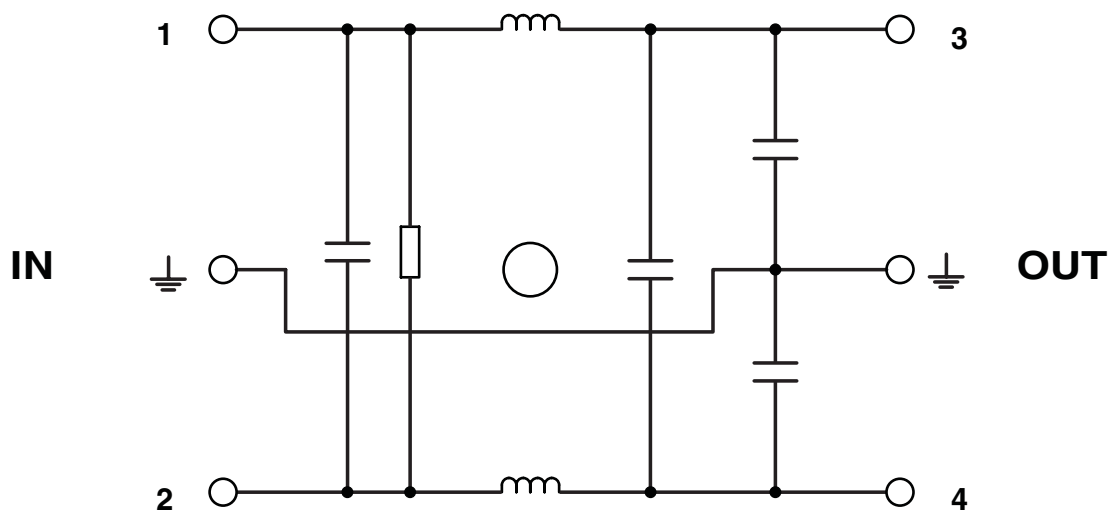
Dimensional drawing



Diagram



Circuit diagram



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Classifications

UNSPSC

| | |
|-------------|----------|
| UNSPSC 21.0 | 39121600 |
|-------------|----------|

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Environmental product compliance

EU RoHS

| | |
|---|--------------------|
| Fulfills EU RoHS substance requirements | Yes, No exemptions |
|---|--------------------|

China RoHS

| | |
|--|--|
| Environment friendly use period (EFUP) | EFUP-E |
| | No hazardous substances above the limits |

EU REACH SVHC

| | |
|-------------------------------------|----------------------------|
| REACH candidate substance (CAS No.) | No substance above 0.1 wt% |
|-------------------------------------|----------------------------|

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