

# 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

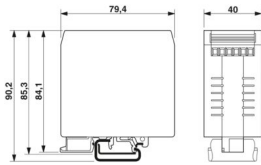
### Electrical properties

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 <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross-section rigid	0.2 mm <sup>2</sup> ... 4 mm <sup>2</sup>
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
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### 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 $U_C$	$\leq 0.25$ mA
Protective conductor current $I_{PE}$	$\leq 0.5$ mA
Input attenuation aE, sym.	> 80 dB (50 $\Omega$ / 1 MHz)
Input attenuation aE, asym.	> 40 dB (50 $\Omega$ / 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 $\Omega$
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## 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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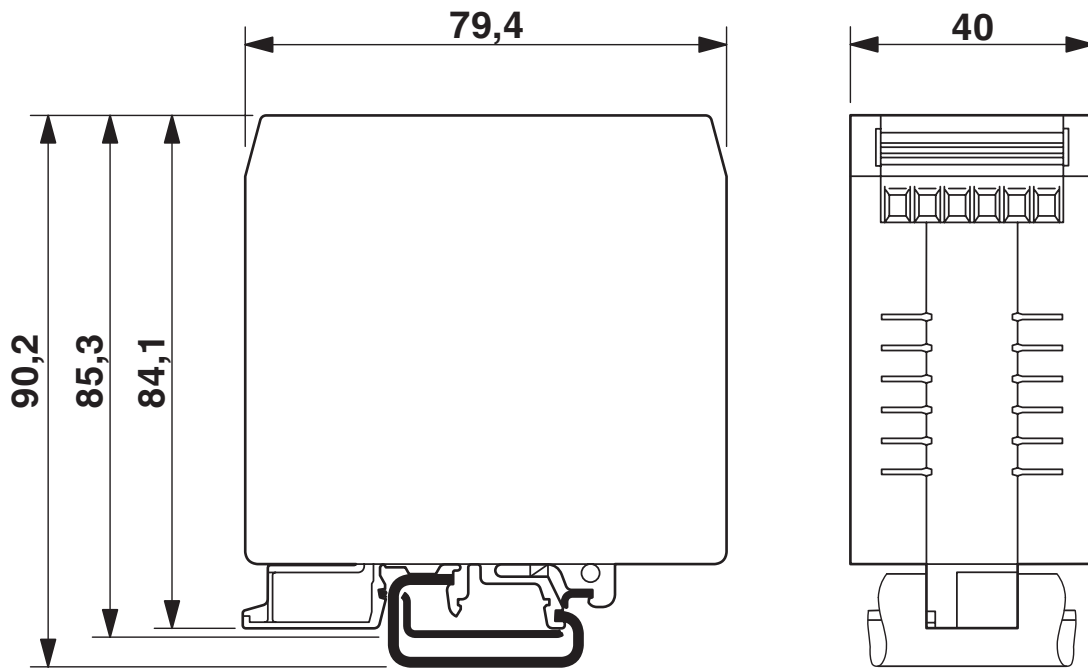
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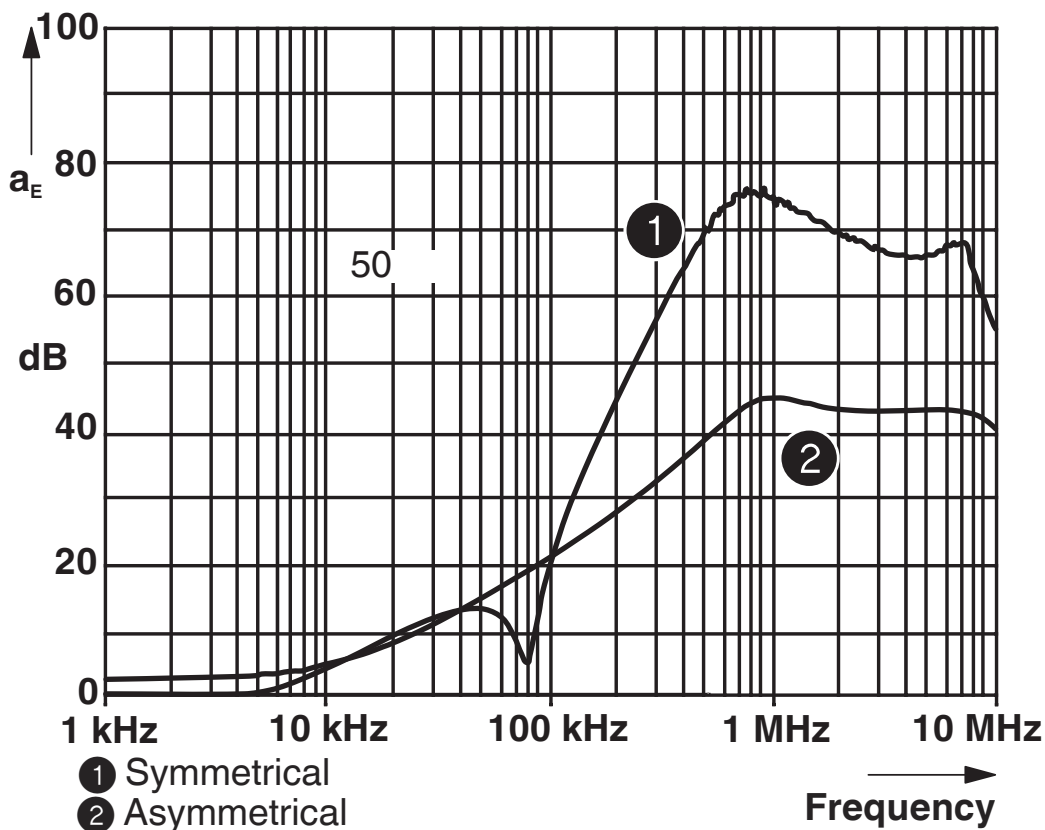


## Drawings

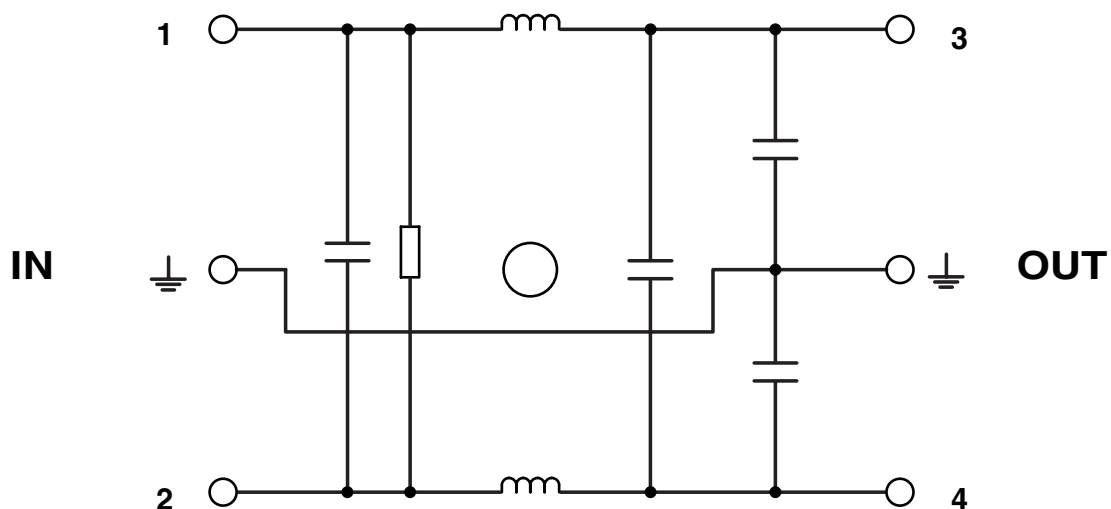
Dimensional drawing



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
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### 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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