

# FIL-1S-1-6A-230AC-PT - EMC filter

1292321

<https://www.phoenixcontact.com/us/products/1292321>

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EMC filter (mains filter) for single-phase AC and DC systems (nominal voltage: up to 230 V AC, up to 220 V DC), for mounting on NS 35, nominal current: 6 A

## Your advantages

- Reliable protection of sensitive equipment against high-frequency conducted interference
- Effective attenuation with current-coupled coils and X and Y capacitors
- Versatile in use with universal circuit design
- Improved filter effect with additional PE terminals, for connection to the local protective bonding
- User-friendly handling thanks to easy assembly and installation with Push-in connection technology (PT)

## Commercial data

Item number	1292321
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	CL28
Product key	CLC151
GTIN	4063151525729
Weight per piece (including packing)	248 g
Weight per piece (excluding packing)	248 g
Customs tariff number	85480090
Country of origin	CN

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## Technical data

### Product properties

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

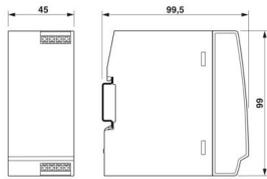
### Electrical properties

Nominal frequency $f_N$	50 Hz (60 Hz)
Nominal voltage $U_N$	230 V AC (TN-S/TT)
	230 V AC (IT, L-L)
	120 V AC (TN-S/TT)
	120 V AC (IT, L-L)
	220 V DC
Rated voltage ( $U_R$ )	250 V AC
	250 V DC

### Connection data

Connection method	Push-in connection
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> ... 2.5 mm <sup>2</sup>
Conductor cross-section AWG	24 ... 14 (flexible)
	24 ... 12 (solid)

### Dimensions

Dimensional drawing	
Width	45 mm
Height	99 mm
Depth	99.5 mm

### Material specifications

Color	gray (RAL 7042)
	light gray (RAL 7035)
Flammability rating according to UL 94	V-0
Housing material	PC-GF10

### Mechanical properties

#### Mechanical data

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1292321

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Open side panel	No
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## Protective circuit

Nominal voltage $U_N$	230 V AC (TN-S/TT)
	230 V AC (IT, L-L)
	120 V AC (TN-S/TT)
	120 V AC (IT, L-L)
	220 V DC
Nominal frequency $f_N$	50 Hz (60 Hz)
Rated current	6 A (50 °C)
Protective conductor current $I_{PE}$	≤ 0.2 mA
Input attenuation aE, sym.	> 70 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 2.7 mH (with current compensation)
Short-circuit current rating $I_{SCCR}$	10 kA AC (gG, Class J)
	6 kA AC (MCB B)
	6 kA AC (MCB, UL 489 Tripping Curve Z or B)
	6 kA AC (MCB, CSA C22.2 No. 5-02 Tripping Curve Z or B)
	6 kA DC (gG, Class J)
Max. required back-up fuse	4 A AC/DC (gG, Class J)
	6 A AC (MCB B)
	6 A AC (MCB, UL 489 Tripping Curve Z or B)
	6 A AC (MCB, CSA C22.2 No. 5-02 Tripping Curve Z or B)

## Filter data

Discharge resistance	940 kΩ
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## Environmental and real-life conditions

### Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-40 °C ... 70 °C (dependent on the derating curve)
Ambient temperature (storage/transport)	-40 °C ... 70 °C
Ambient temperature (assembly)	-5 °C ... 70 °C
Altitude	≤ 2000 m (amsl)
Permissible humidity (operation)	5 % ... 95 %
Shock (operation)	15g (Half-sine / 11 ms / 3x ±X, ±Y, ±Z)
Vibration (operation)	DNVGL-CG-0339 class A

## Standards and regulations

Standards/specifications	IEC 60939-1
Standards/specifications	EN 60939-1
Standards/specifications	IEC 60939-2

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Standards/specifications	EN 60939-2
Standards/specifications	UL 60939-3
Standards/specifications	UL 1283
Standards/specifications	UL 121201
Standards/specifications	CSA C22.2 No. 8-13
Standards/specifications	CSA C22.2 No. 213-17

## Mounting

Mounting type	DIN rail: 35 mm
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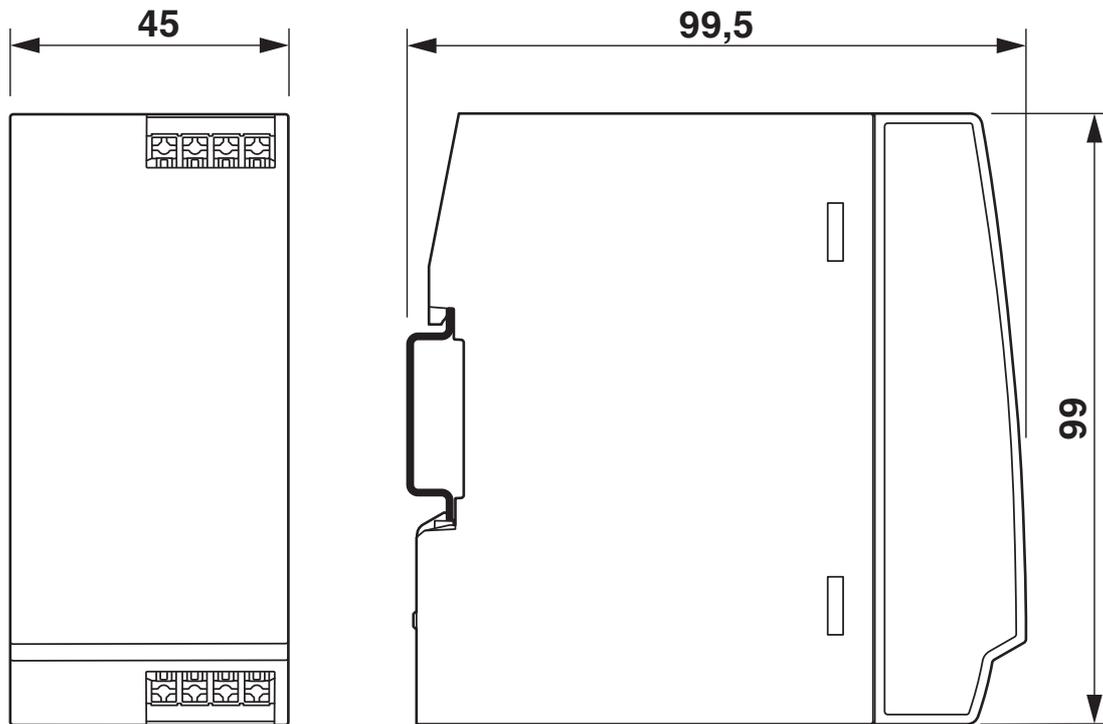


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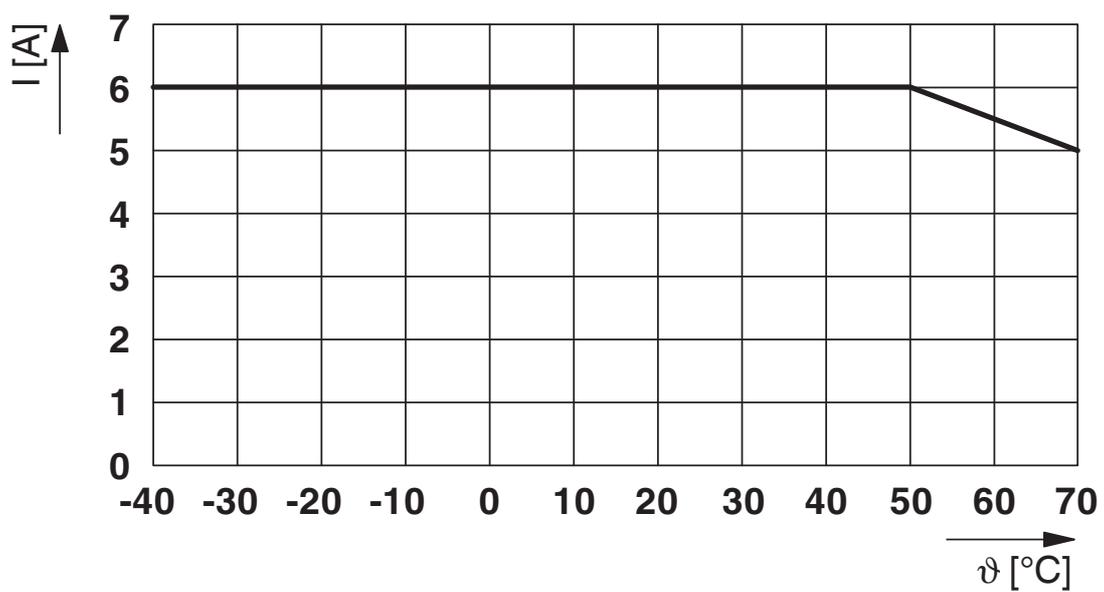
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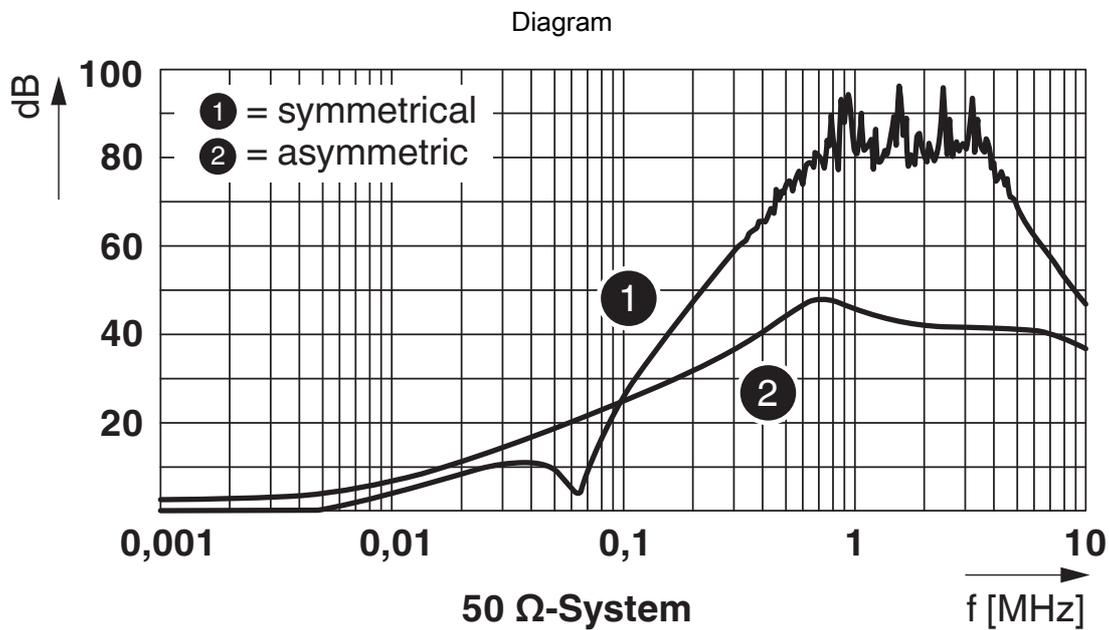
## Drawings

Dimensional drawing

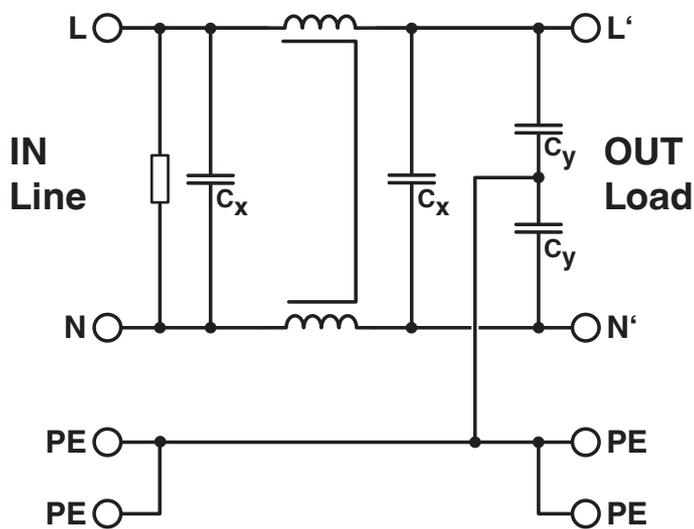


Diagram





Circuit diagram



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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1292321>



**cUL Recognized**  
Approval ID: FILE E 526585



**UL Recognized**  
Approval ID: FILE E 526585



**IECEE CB Scheme**  
Approval ID: DE1-66248



**VDE Zeichengenehmigung**  
Approval ID: 40054877

**CCA**

Approval ID: DE1-34877-A1



**DNV GL**  
Approval ID: TAA0000384



**CSA**  
Approval ID: 80228707



**CSAus**  
Approval ID: 80228707



**cULus Recognized**  
Approval ID: E118989



**cUL Recognized**  
Approval ID: FILE E 532830



**UL Recognized**  
Approval ID: FILE E 532830

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**cUL Recognized**  
Approval ID: E340736



**UL Recognized**  
Approval ID: E340736



**CSA**  
Approval ID: 80228706



**CSAus**  
Approval ID: 80228706

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## Classifications

### ECLASS

ECLASS-13.0	27420208
ECLASS-15.0	27420290

### ETIM

ETIM 9.0	EC002564
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### UNSPSC

UNSPSC 21.0	39121500
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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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