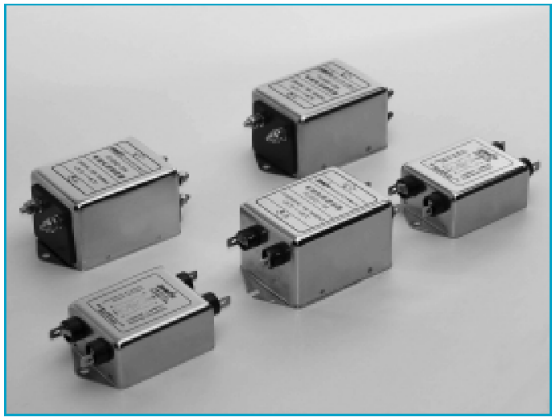
2-line filters

SIFI-P

Series/Type:	Screw or tab connector
Ordering code:	B84811D
Date:	2006-07-24
Version:	A.0

Preliminary data

Rated voltage 115/250 VAC, 50/60 Hz
Rated current 3 to 30 A



Construction

- 2-line filter
- Metal case

Features

- Two-stage filtering, excellent suppressing capability of common mode and differential mode interference
- Wide frequency attenuation
- Excellent performance of high and low frequency
- Low leakage current, high-quality component ensure the safety of products
- UL approval

Applications

- PLC, powering monitoring and controlling fire alarm system, medical instrument, microprocessor application system.

Terminals

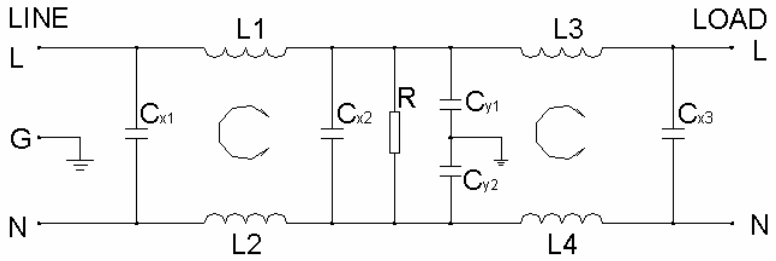
- Case style A: tab connector
- Case style G: screw connector

Marking

- Marking on component:
  Manufacturer's logo, ordering code, rated voltage, rated current, date code
- Minimum marking on packaging:
  Manufacturer's logo, ordering code

Preliminary data

Typical circuit diagram



Technical data and measuring conditions

Rated voltage V_R	250/115 V AC, 50/60 Hz
Rated current I_R	Referred to 40 °C ambient temperature
Test voltage V_{test}	1768 V DC, 1 min (line/line) 2000 V AC, 1 min (lines/case)
Leakage current I_{leak}	< 0.5 mA (at 250 V AC, 50 Hz)
Climatic category	To EN 60068-1 25/085/21 (–25°C/+85°C/21 days damp heat test)

Characteristics and ordering codes

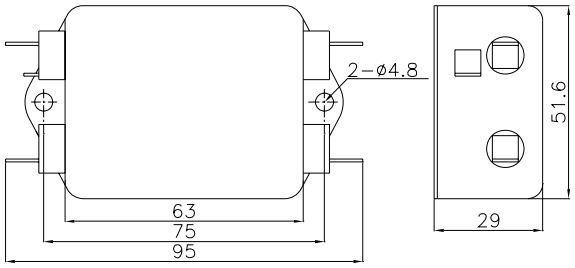
I_R A	C_R	L_R mH	Ordering code	Approvals
3	3 × 0.1 µF (X2) + 2 × 2200 pF (Y2)	2 × 1.8	B84811D0003A001	x
6	3 × 0.1 µF (X2) + 2 × 4700 pF (Y2)	2 × 2.0	B84811D0006A003	x
4	3 × 0.47 µF (X2) + 2 × 4700 pF (Y2)	2 × 16	B84811D0004A001	x
6	3 × 0.68 µF (X2) + 2 × 3300 pF (Y2)	2 ×15	B84811D0006A001	x
6	3 × 0.47 µF (X2) + 2 × 4700 pF (Y2)	2 ×（9.5 + 4.5）	B84811D0006A002	x
10	3 × 0.1 µF (X2) + 2 × 4700 pF (Y2)	2 × 0.7	B84811D0010A001	x
20	3 × 0.22 µF (X2) + 2 × 4700 pF (Y2)	2 × 0.4	B84811D0020G001	x
30	3 × 0.22 µF (X2) + 2 × 4700 pF (Y2)	2 × 0.28	B84811D0030G002	x

x = approval granted

Preliminary data

Dimensional drawings (unit: mm)

B84811D0003A001, B84811D0006A003, B84811D0010A001



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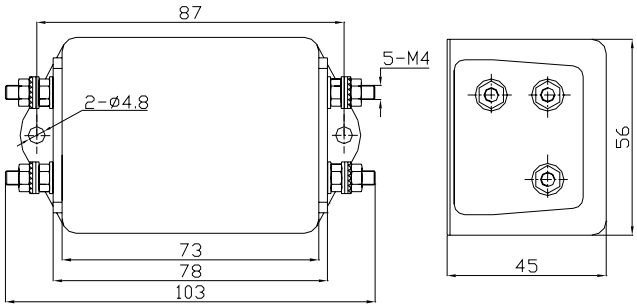

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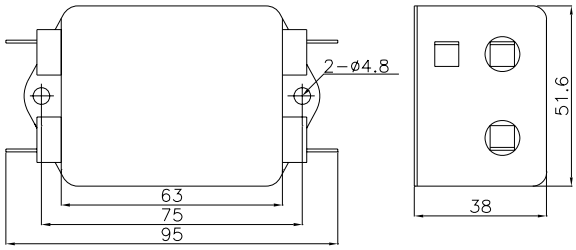

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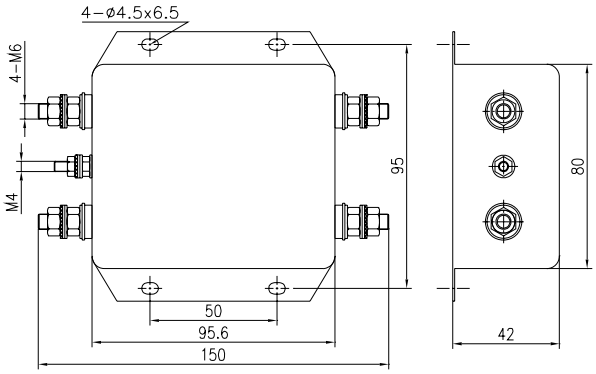

Insertion loss (to CISPR 17, typical values at Z = 50 Ω)
– · – · – common mode – – – – differential mode

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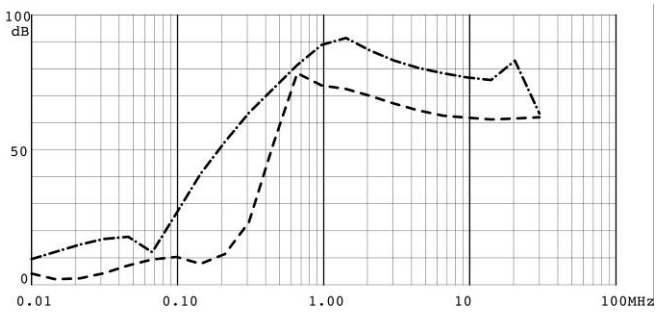

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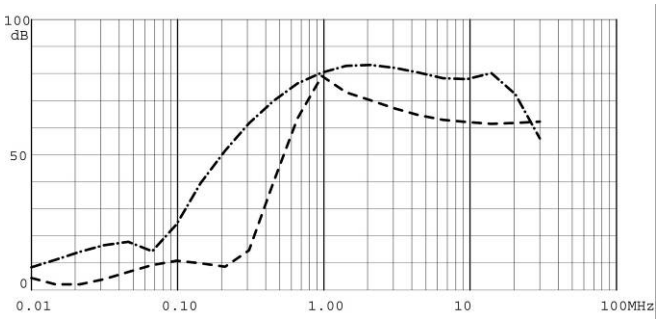

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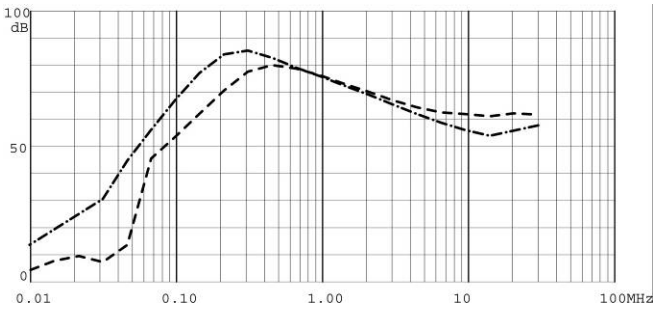

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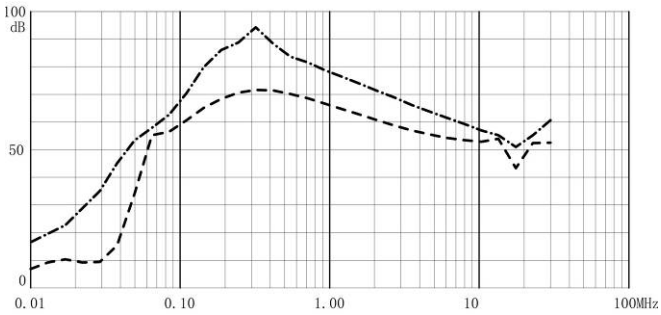

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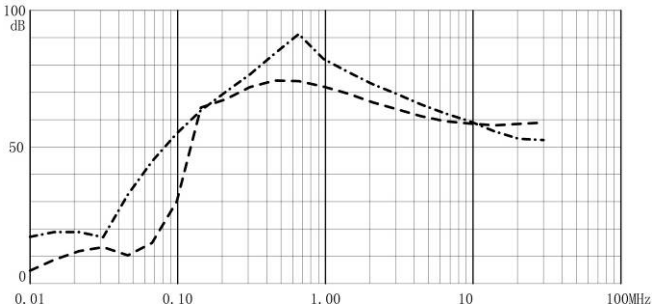

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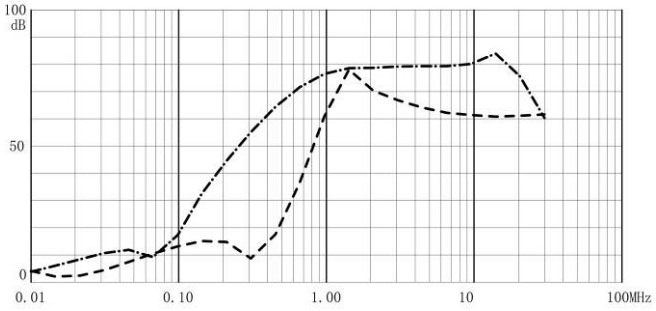

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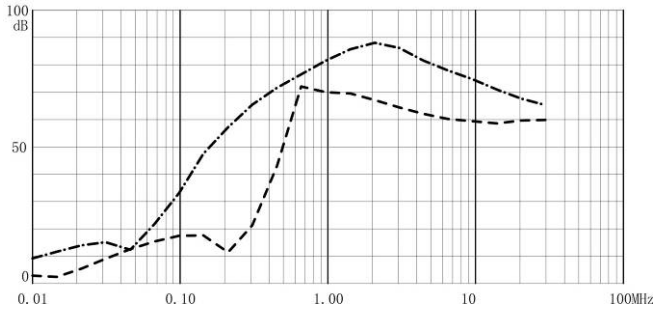

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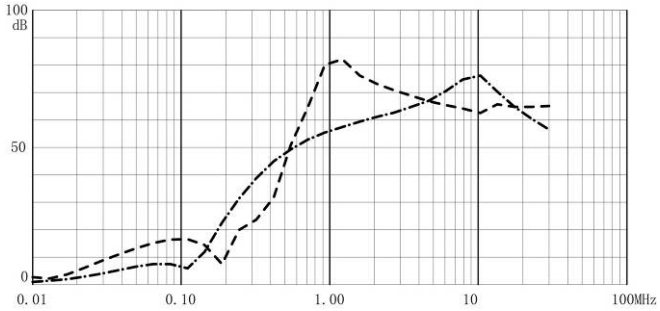

Preliminary data

Cautions and warnings

- Please note the advices in our data book “EMC filters” (latest edition); attention should be paid to the chapter “General safety notes”.
- It shall be ensured that only qualified persons (electricity specialists) are engaged on work such as planning, assembly, installation, operation, repair and maintenance. They must be provided with the corresponding documentation.
- Danger of electric shock. EMC filters contain components that store an electric charge. Dangerous voltages can continue to exist at the filter terminals for longer than five minutes even after the power has been switched off.
- The protective earth connections shall be the first to be made when the EMC filter is installed and the last to be disconnected. Depending on the magnitude of the leakage currents, the particular specifications for making the protective-earth connection must be observed.
- Impermissible overloading of the EMC filter, such as with circuits able to cause resonances, impermissible voltages at higher frequencies etc. can lead to bodily injury and death as well as cause substantial material damages (e. g. destruction of the filter housing).
- EMC filters must be protected in the application against impermissible exceeding of the rated currents by overcurrent protective.
- In case of leakage current >3.5 A you shall mount the PE conductor stationary with the required cross section before beginning of operation and save it against diconnecting. For leakage currents I_L [3)] <10 mA the PE conductor must have a KU value[4)] of 4.5, for leakage currents I_L ≥10 mA the PE conductor must have a KU value of 6.

3) I_L = leakage current let-go
4) The KU value (symbol KU) is a classification parameter of safety-referred failure types designed to ensure protection against hazardous body currents and excessive heating.
A value of KU = 4.5 with respect to interruptions is attained:
- with a permanently connected protective earth circuit ≥1.5 mm^2
- with a protective earth circuit ≥2.5 mm^2 connected via shroud connectors (IEC 60309-2).
KU = 6 with respect to interruptions is achieved for fixed-connection lines ≥10 mm^2 where the type of connection and line layout correspond to the requirements for PEN conductors as specified in relevant standards.

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