

Datasheet



3-line filters

for converters and power electronics

310/530 V, 50/60 Hz, 400 A, 40 °C

| Ordering | code: |
|----------|-------|
| Date: | |

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Version:

| Customer release | | | |
|--|--|--|--|
| Company | Date | | |
| Name | Expected date of first delivery (optional) | | |
| Function | Signature | | |
| Please send back to EPCOS MAG PEMC or to your EPCOS sales representative | | | |

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Typical circuit diagram



Technical data and measuring conditions

| Rated voltage | U _{R [L-PE/L-L]} | 310/530 V AC (50/60 Hz) |
|--|---------------------------|---|
| Test voltage line to line for 2 s | U _{test} | 2280 V DC |
| Test voltage line to case for 2 s | U _{test} | 2690 V DC |
| Rated temperature | T _R | 40 °C |
| Overload capability (thermal) | | 1.5 x I_R for 3 min per hour or 2.5 x I_R for 30 s per hour |
| Leakage current (IEC 60939-1: 2010, Annex A) | I _{LK} | At U_R and 50 Hz |
| Climatic category (IEC 60068-1: 1992) | | 25/100/21 |

Characteristics and ordering codes

| I _R | Busbars | I _{LK} | R _{typ} | Approx weight. | Hitachi-Number / Ordering code / (Preliminary code *) | Approvals ¹⁾ | | |
|----------------|--------------------|-----------------|------------------|-------------------|---|-------------------------|------------|----------------------|
| | 2 | | - | | | EC 60939 | UL 1283 | CSA C22.2 No.8 |
| A | mm | mA | μΩ | ĸg | | | | |
| 400 | 25 x 5 | 20 | 67 | 22 | BPF-P1340-400 B84143B0400S220 (P301198N001) | D | D | D |
| 1) X : | = approval granted | P | = pending | D : | e designed with reference to | - = none | ; | |

X = approval granted
*: Development Number



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Dimensional drawings



Please read *Cautions and warnings* and *Important notes* at the end of this document.



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Customer specific labeling

Type label



Manufacturing date CYCWD

Packing label (delivery label SAP debitor 122876)



Barcodes only samples!



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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: 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 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 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).
- Filters must be protected in the application against impermissible exceeding of the rated currents by overcurrent protective devices.
- In case of leakage currents > 3.5 mA you shall mount the PE conductor stationary with the required cross section before beginning of operation and save it against disconnecting. For leakage currents I_L^a ≤10 mA the PE conductor must have a KU value ^{b)} of 4.5; for leakage currents I_{LK} > 10 mA the PE conductor must have a KU value of 6.
- Output chokes and output filters must be protected in the application against impermissible exceeding of the component temperature.
 - The converter output frequency must be within the specified range to avoid resonances and uncontrolled warming of the output chokes and output filters.
- Because the product can become very hot during operation, there is the risk of burns if touched. The product can remain hot for some time after the power is switched off!

a) IL = Leakage current let-go b) 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.(DIN VDE 0800-1, 0800-8, 0800-9)

- A value of KU = 4.5 with respect to interruptions is attained:
- with a permanently connected protective earth connections ≥ 1.5 mm²

with a protective earth connection \geq 2.5 mm² via connectors for industrial equipment (IEC 60309–2). KU = 6 with respect to interruptions is achieved for fixed-connection lines \geq 10 mm², where the type of connection and installation is conform to the specification for PEN conductors according to DIN VDE 0100-540.

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