

## Power line chokes

Current-compensated ring core double chokes  
250 V AC, 1.1 ... 22 mH, 0.3 ... 2 A, +40 °C

**Series/Type:**            **B82720A/K**

**Date:**                    January 2017

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**Rated voltage 250 V AC**

**Rated inductance 1.1 ... 22 mH**

**Rated current 0.3 ... 2 A / +40 °C**

### Construction

- Current-compensated ring core double choke
- Ferrite core with epoxy coating (UL 94 V-0)
- Plastic case (UL 94 V-0)<sup>1)</sup>
- Potting (UL 94 V-0)
- Sector winding

### Features

- High resonance frequency due to special winding technique
- Approx. 0.7% stray inductance for symmetrical interference suppression
- Suitable for wave soldering
- Design complies with EN 60938-2 (VDE 0565-2) and UL 1283
- UL<sup>2)</sup> and/or ENEC (VDE) approvals   
- RoHS-compatible

### Applications

- Suppression of common-mode interferences
- Compact electronic ballasts in lamps
- Compact switch-mode power applications

### Terminals

- Base material CuNi18Zn20
- Layer composition Ni, Sn
- Hot-dipped
- Pins 0.5 × 0.5 (mm) or Ø 0.6 mm
- Pins in lead spacing 10 × 7.5 (mm) or 10 × 10 (mm)

### Marking

- Product brand, ordering code, rated inductance, rated current, graphic symbol, rated voltage, date of manufacture (YYWWD)

### Delivery mode

- Cardboard box



B82720A



B82720K

1) Additionally certified values:

|                                                          |         |
|----------------------------------------------------------|---------|
| Glow wire flammability index (GWFI to IEC 60695-2-12):   | +850 °C |
| Glow wire ignition temperature (GWIT to IEC 60695-2-13): | +775 °C |
| Comparative tracking index (CTI to IEC 60112):           | 175 V   |
| Ball pressure test (BP to IEC 60695-10-2):               | +125 °C |

2) UL approval with 300 V AC

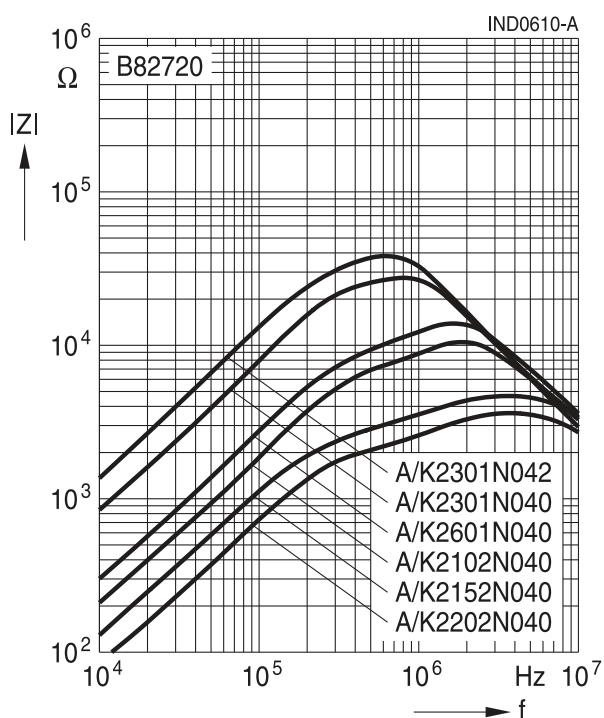


# Characteristics and ordering codes

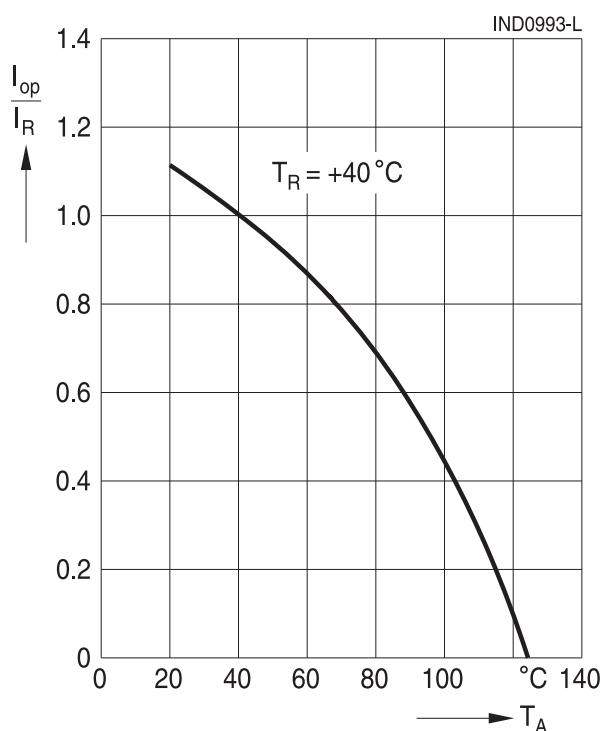
| $I_R$<br>A | $L_R$<br>mH | $L_{\text{stray, typ}}$<br>$\mu\text{H}$ | $R_{\text{typ}}$<br>$\text{m}\Omega$ | Ordering code      |                  | Approvals |   |
|------------|-------------|------------------------------------------|--------------------------------------|--------------------|------------------|-----------|---|
|            |             |                                          |                                      | Horizontal version | Vertical version |           |   |
| 0.3        | 22          | 130                                      | 1500                                 | B82720A2301N042    | B82720K2301N042  | ×         | × |
| 0.3        | 12          | 80                                       | 1100                                 | B82720A2301N040    | B82720K2301N040  | ×         | × |
| 0.6        | 4.4         | 30                                       | 400                                  | B82720A2601N040    | B82720K2601N040  | ×         | × |
| 1.0        | 3.0         | 20                                       | 220                                  | B82720A2102N040    | B82720K2102N040  | ×         | × |
| 1.5        | 1.6         | 10                                       | 110                                  | B82720A2152N040    | B82720K2152N040  | ×         | × |
| 2.0        | 1.1         | 6                                        | 65                                   | B82720A2202N040    | B82720K2202N040  | ×         | × |

× = approval granted

**Impedance  $|Z|$  versus frequency  $f$**   
measured with windings in parallel at +20 °C,  
typical values



**Current derating  $I_{\text{op}}/I_R$**   
**versus ambient temperature  $T_A$**



## Cautions and warnings

- Please note the recommendations in our Inductors data book (latest edition) and in the data sheets.
  - Particular attention should be paid to the derating curves given there.
  - The soldering conditions should also be observed. Temperatures quoted in relation to wave soldering refer to the pin, not the housing.
- If the components are to be washed varnished it is necessary to check whether the washing varnish agent that is used has a negative effect on the wire insulation, any plastics that are used, or on glued joints. In particular, it is possible for washing varnish agent residues to have a negative effect in the long-term on wire insulation.  
Washing processes may damage the product due to the possible static or cyclic mechanical loads (e.g. ultrasonic cleaning). They may cause cracks to develop on the product and its parts, which might lead to reduced reliability or lifetime.
- The following points must be observed if the components are potted in customer applications:
  - Many potting materials shrink as they harden. They therefore exert a pressure on the plastic housing or core. This pressure can have a deleterious effect on electrical properties, and in extreme cases can damage the core or plastic housing mechanically.
  - It is necessary to check whether the potting material used attacks or destroys the wire insulation, plastics or glue.
  - The effect of the potting material can change the high-frequency behaviour of the components.
- Ferrites are sensitive to direct impact. This can cause the core material to flake, or lead to breakage of the core.
- Even for customer-specific products, conclusive validation of the component in the circuit can only be carried out by the customer.

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