



## Power line chokes

Current-compensated ring core triple chokes  
440/250 V AC, 50 ... 200 A, 0.12 ... 1.3 mH

**Series/Type:**            **B82745C**

**Date:**                    October 2008

Current-compensated ring core triple chokes

Rated voltage 440/250 V AC  
Rated current 50 A to 200 A  
Rated inductance 0.12 mH to 1.3 mH

**Construction**

- Current-compensated ring core triple choke
- Ferrite core
- Aluminum case
- Fixing by means of base plate
- Polyurethane potting (UL 94 V-0)
- Sector winding

**Features**

- High power
- Design complies with EN 60938-2 (VDE 0565-2)
- RoHS-compatible

**Applications**

- Suppression of common-mode interferences
- Switch-mode power supplies for converters, USV
- Power supplies, medical equipment
- Track vehicles, chargers

**Terminals**

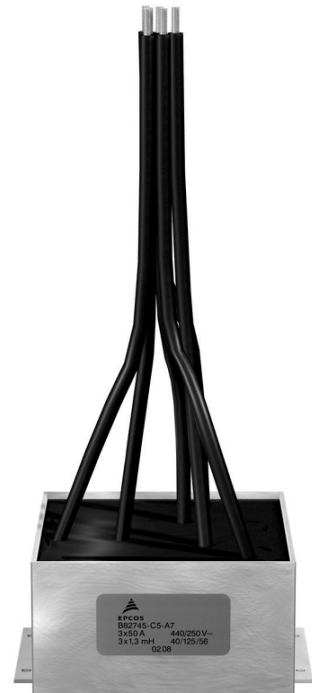
- Litz wires
- Stud terminals

**Marking**

Manufacturer, ordering code, rated current, rated inductance, rated voltage, climatic category, date of manufacture (MM.YY)

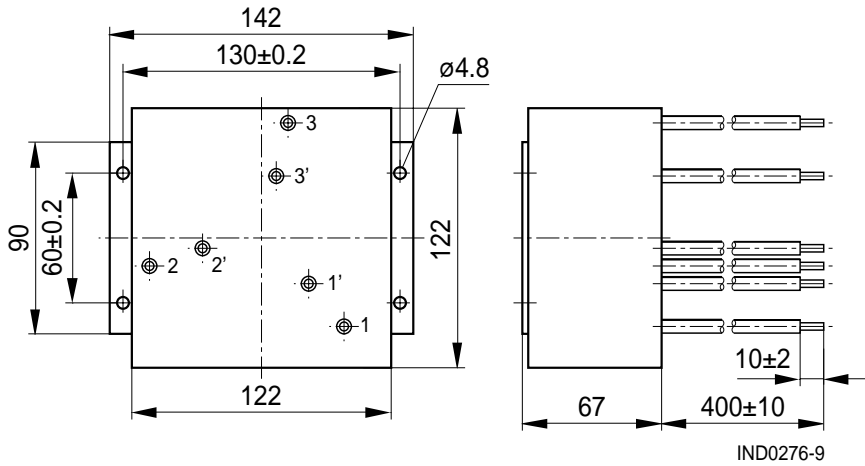
**Delivery mode**

Cardboard box

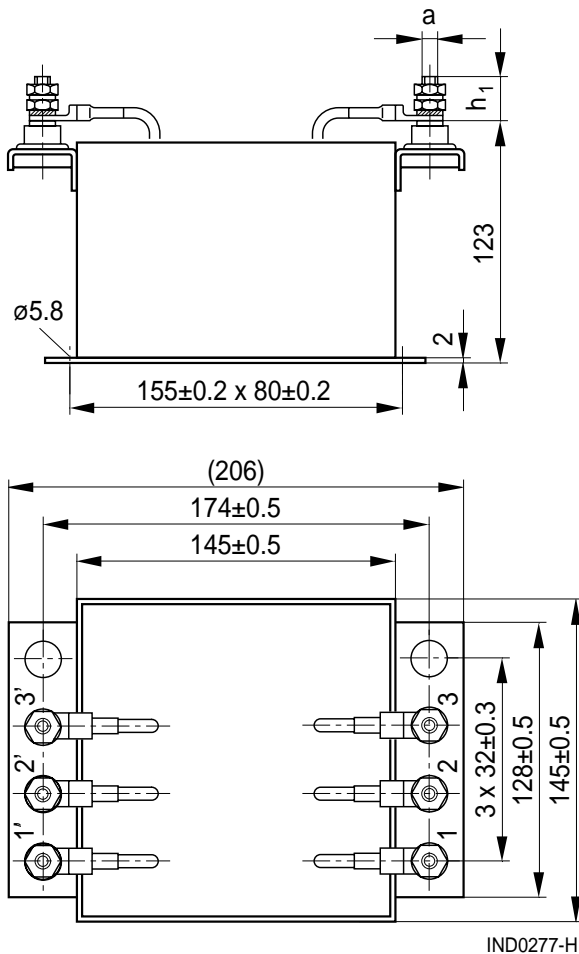


Dimensional drawings and electrical circuits

B82745C\*A007



B82745C\*A010, A013



Type	a	h <sub>1</sub>
B82745C0002A010	M10	30 mm
B82745C0002A013	M8	20 mm

Tolerances to ISO 2768-C unless otherwise noted.

Dimensions in mm

**Technical data and measuring conditions**

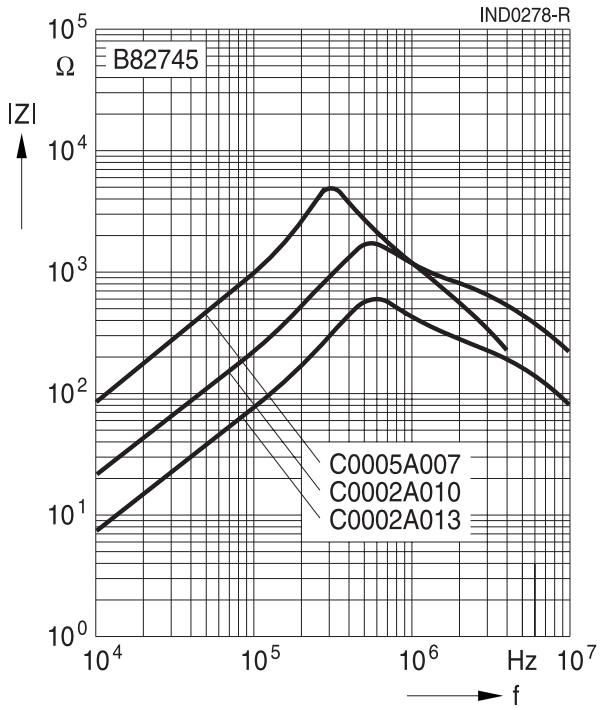
Rated voltage $V_R$	440/250 V AC (50/60 Hz)
Test voltage $V_{test}$	2500 V AC, 2 s (line/line) 2500 V AC, 2 s (line/case)
Rated temperature $T_R$	60 °C
Rated current $I_R$	Referred to 50 Hz and rated temperature
Rated inductance $L_R$	Measured with Agilent 4284A at 0.1 mA, 20 °C Measuring frequency: $L_R \leq 1$ mH = 100 kHz $L_R > 1$ mH = 10 kHz Inductance is specified per winding.
Inductance tolerance	$\pm 30\%$ at 20 °C
Inductance decrease $\Delta L/L_0$	< 20% at DC magnetic bias with $I_R$ , 20 °C
DC resistance $R_{typ}$	Measured at 20 °C, typical values, specified per winding
Climatic category	40/125/56 (to IEC 60068-1)
Storage conditions (packaged)	-25 °C ... +40 °C, $\leq 75\%$ RH

**Characteristics and ordering codes**

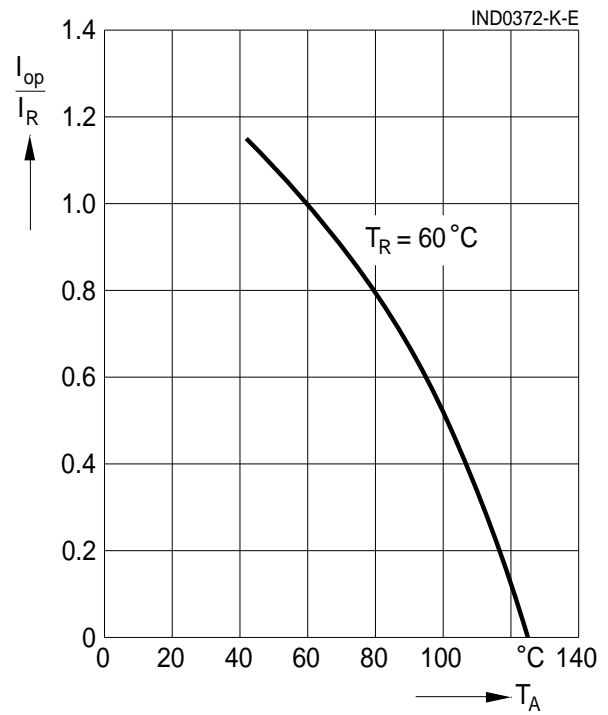
$I_R$ A	$L_R$ mH	$R_{typ}$ m $\Omega$	Weight kg	Terminal	Ordering code
50	1.3	3.75	1.7	Litz wire 11.5 mm <sup>2</sup>	B82745C0005A007
100	0.33	0.65	6.0	Stud terminal M 10	B82745C0002A010
200	0.12	0.28	6.3	Stud terminal M 8	B82745C0002A013

Current-compensated ring core triple chokes

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



**Current derating  $I_{op}/I_R$**   
 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.
- 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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