

## Power Line Chokes

**Series/Type:**      **B82745C**

The following products presented in this data sheet are being withdrawn.

Ordering Code	Substitute Product	Date of Withdrawal	Deadline Last Orders	Last Shipments
B82745C0005A007		2014-04-25	2015-06-30	2015-12-31
B82745C0002A013		2014-04-25	2015-06-30	2015-12-31
B82745C0002A010		2014-04-25	2015-06-30	2015-12-31

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**Rated voltage 440/250 V AC**

**Rated current 50 ... 200 A**

**Rated inductance 0.12 ... 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

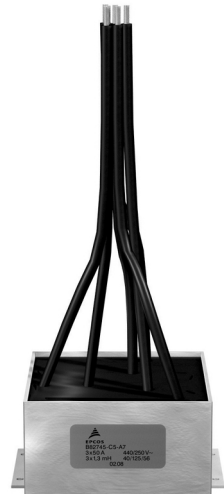
- Litz wires
- Stud terminals

### Marking

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

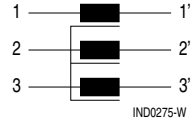
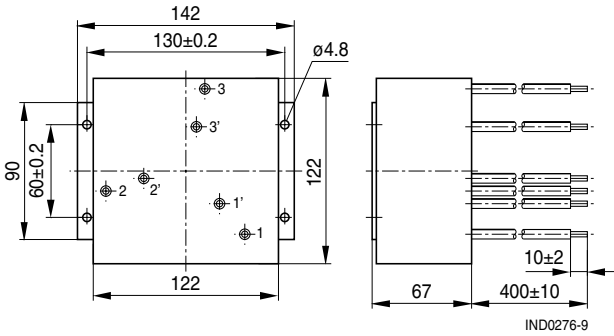
### Delivery mode

Cardboard box

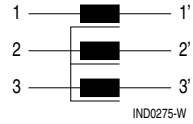
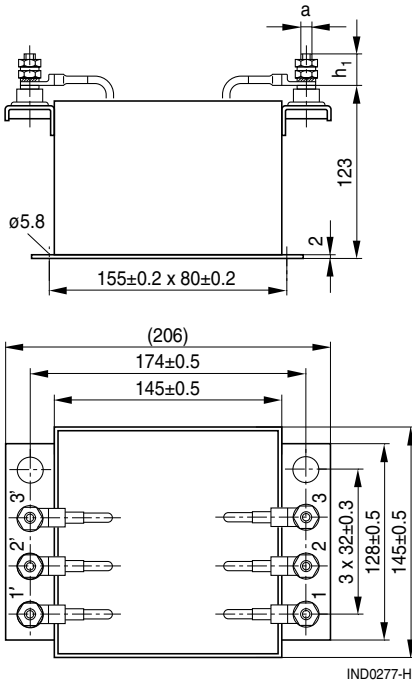


Dimensional drawings and electrical circuits

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

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

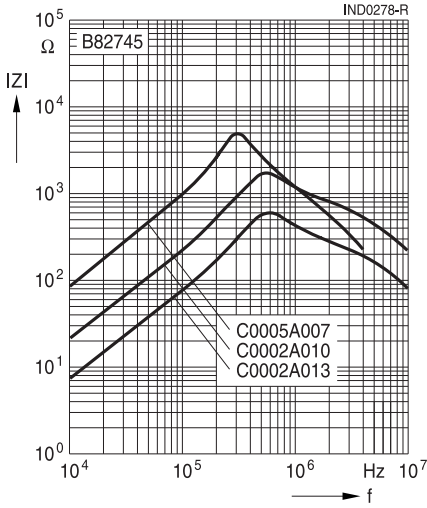
**Power line chokes**
**B82745C**
**Current-compensated ring core triple chokes**
**Technical data and measuring conditions**

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

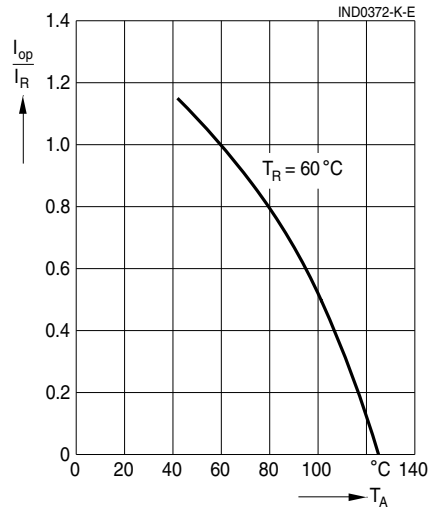
**Characteristics and ordering codes**

$I_R$ 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

**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. Derating must be applied in case the ambient temperature in the application exceeds the rated temperature of the component.
  - Ensure the operation temperature (which is the sum of the ambient temperature and the temperature rise caused by losses / self-heating) of the component in the application does not exceed the maximum value specified in the climatic category.
  - 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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