



Power line chokes

Current-compensated ring core quad chokes
440/250 V AC, 16 ... 75 A, 0.9 ... 1.8 mH

Series/Type: **B82765C**

Date: October 2008

Rated voltage 440/250 V AC
Rated current 16 A bis 75 A
Rated inductance 0.9 mH to 1.8 mH

Construction

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

Features

- RoHS-compatible

Applications

- Suppression of common-mode interferences
- Switch-mode power supplies for converters, UPS
- Power supplies, medical equipment
- Chargers
- Traction applications

Terminals

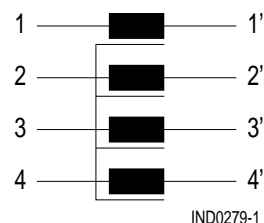
- Unidirectional, tinned leads or litz wires

Marking

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

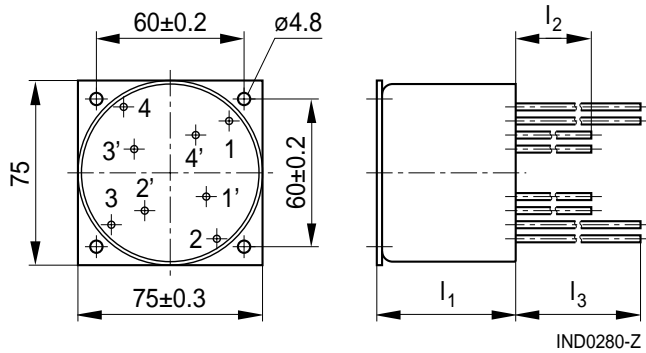


Circuit diagram



Dimensional drawings and pin configurations

B82765C*A005, A006

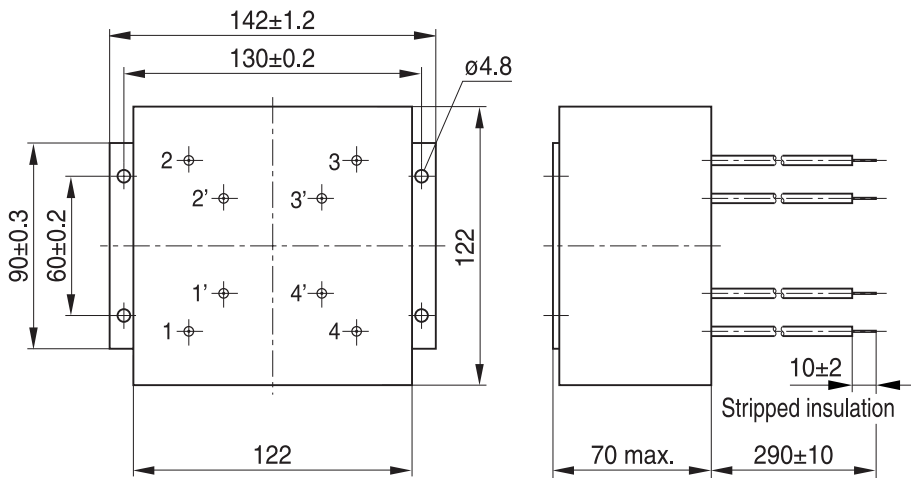


Type	l ₁ mm	l ₂ mm	l ₃ mm
B82765C0001A005	47	160	160
B82765C0002A006	58	110	360

Tolerances to ISO 2768-C unless otherwise noted.

Dimensions in mm

B82765C0005A007

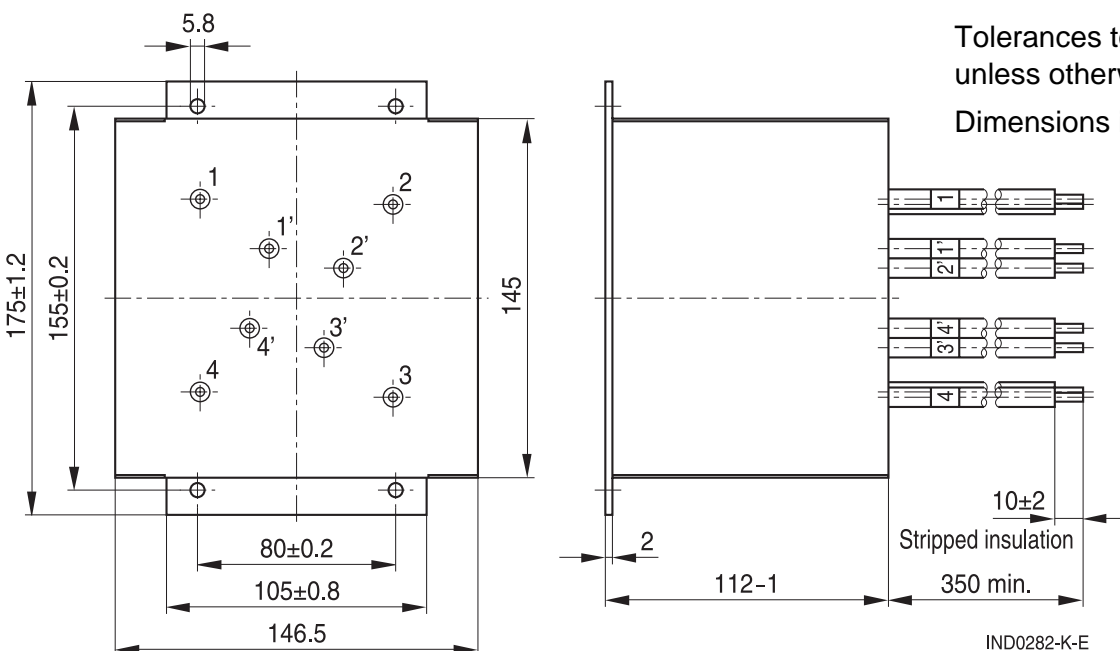


Tolerances to ISO 2768-C unless otherwise noted.

Dimensions in mm

IND0281-C-E

B82765C0006A011



Tolerances to ISO 2768-C unless otherwise noted.

Dimensions in mm

IND0282-K-E

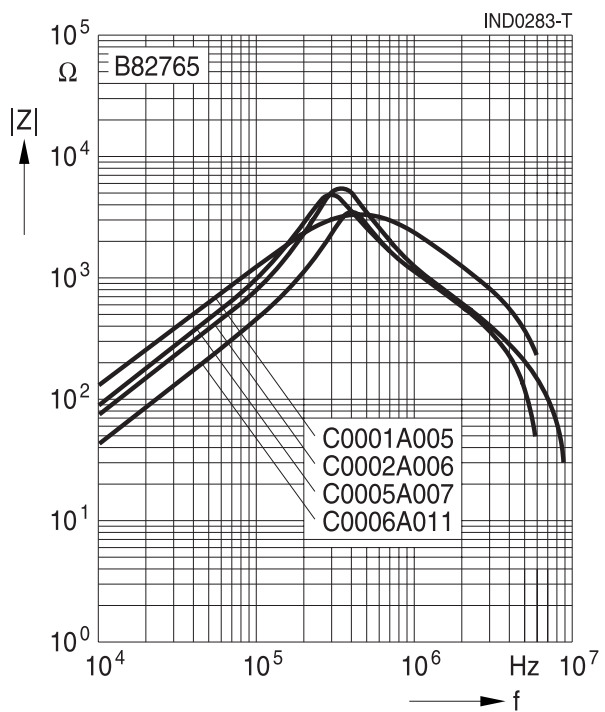
Technical data and measuring conditions

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	±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
Climatic category	40/125/56 (to IEC 60068-1)
Storage conditions (packaged)	-25 °C ... +40 °C, ≤ 75% RH

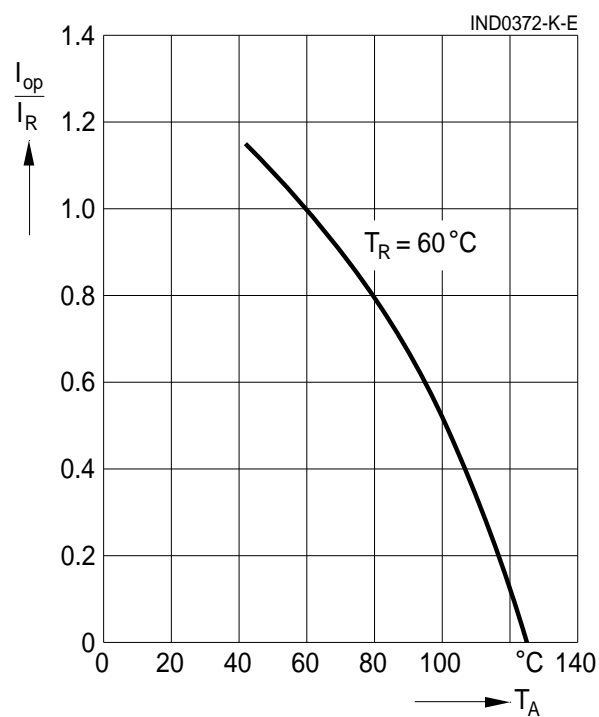
Characteristics and ordering codes

I_R A	L_R mH	R_{typ} mΩ	Weight kg	Terminal	Ordering code
16	1.8	20	0.45	2 × 1.18 mm Ø CuL	B82765C0001A005
25	1.3	7	0.75	Litz wire 4.2 mm ²	B82765C0002A006
50	1.3	3.75	1.7	Litz wire 11.5 mm ²	B82765C0005A007
75	0.9	2.5	6.5	Litz wire 16.7 mm ²	B82765C0006A011

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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