



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: July 2012

Rated voltage 440/250 V AC

Rated current 16 ... 75 A

Rated inductance 0.9 ... 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

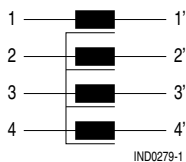
- Unidirectional, tinned leads or litz wires

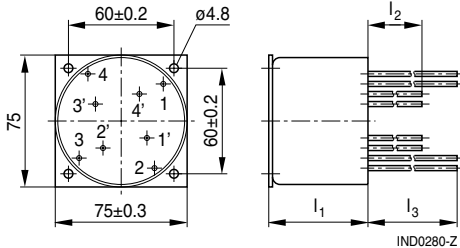
Marking

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



Circuit diagram

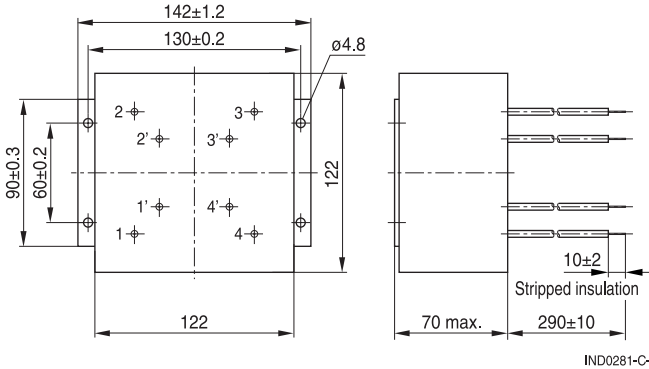


Dimensional drawings and pin configurations
B82765C*A005, A006


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

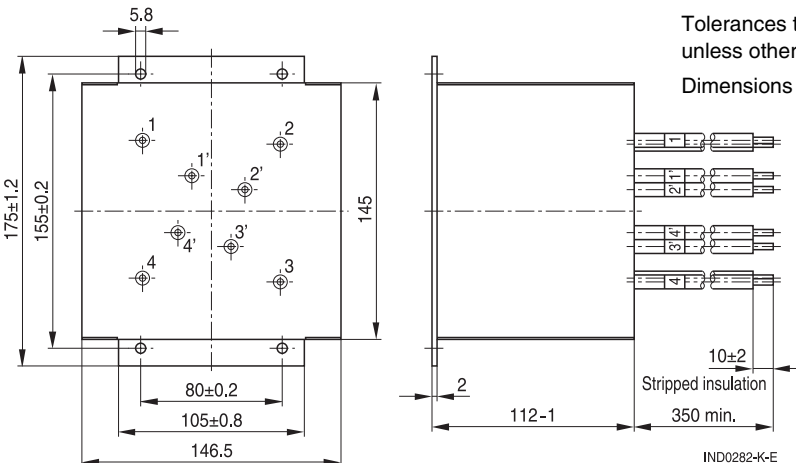
Tolerances to ISO 2768-C
unless otherwise noted.

Dimensions in mm

B82765C0005A007


Tolerances to ISO 2768-C
unless otherwise noted.

Dimensions in mm

B82765C0006A011


Tolerances to ISO 2768-C
unless otherwise noted.

Dimensions in mm

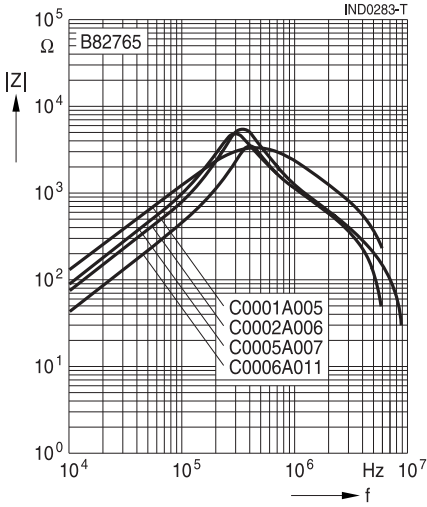
Technical data and measuring conditions

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

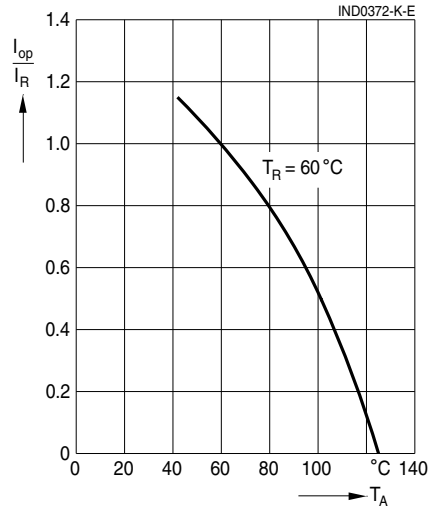
Characteristics and ordering codes

I_R A	L_R mH	R_{typ} m Ω	Weight kg	Terminal	Ordering code
16	1.8	20	0.45	2 × 1.18 mm \varnothing 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. 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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