



Power line chokes

I core chokes

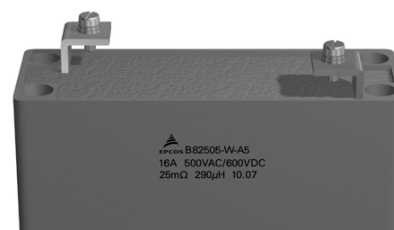
500 V AC, 4 ... 40 A, 0.056 ... 5.6 mH

Series/Type: **B82505W**

Date: June 2008

I core chokes

Rated voltage 500 V AC/600 V DC
Rated current 4 A to 40 A
Rated inductance 0.056 mH to 5.6 mH



Construction

- I core choke
- Rectangular plastic case
- Resin potting

Features

- Low power dissipation
- Suppression of broadband interference
- Compact design
- Suitable for wave soldering
- Design complies with EN 60938-2 (VDE 0565-2)
- RoHS-compatible

Applications

- Suppression of symmetrical and asymmetrical interference
- High-performance power supplies
- Industrial applications

Terminals

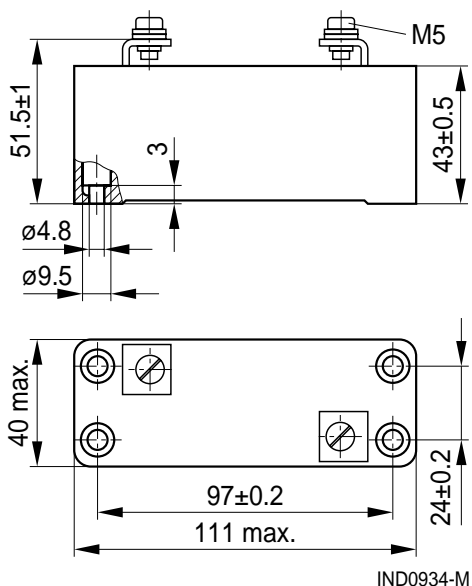
Screw terminals M5

Marking

Ordering code, rated inductance, rated voltage, rated current, DC resistance, manufacturer, date of manufacture (MM.YY)

Delivery mode

Cardboard box

Dimensional drawing


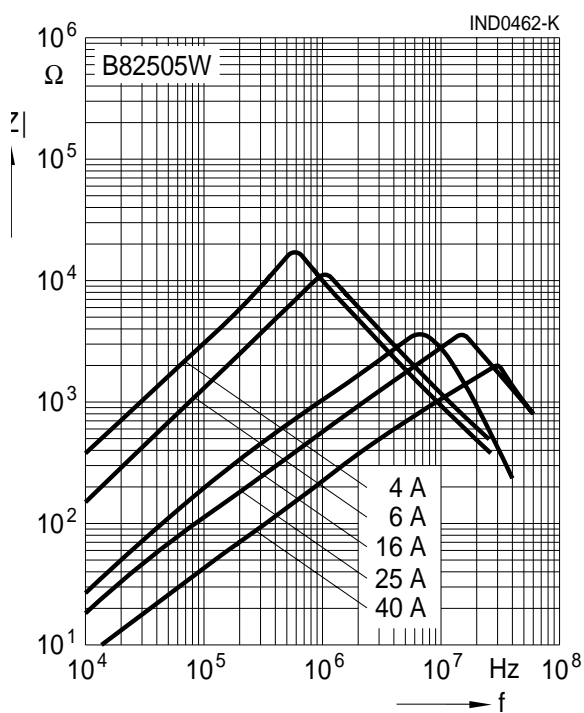
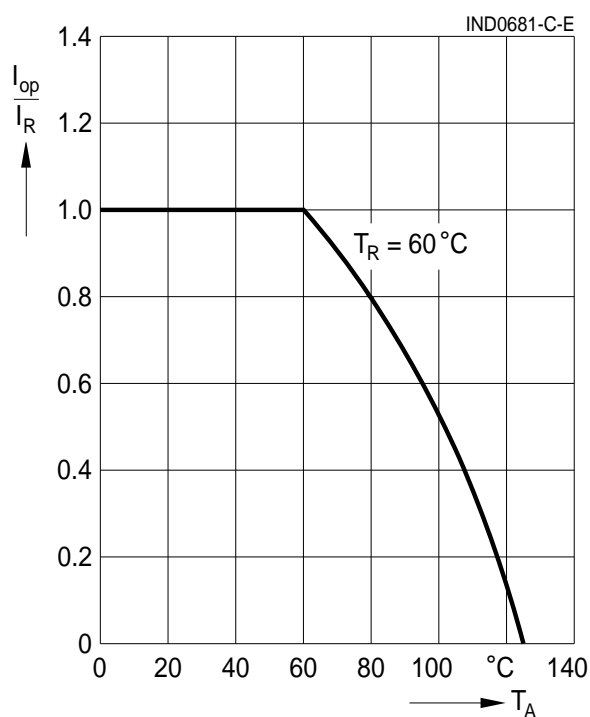
Dimensions in mm

Technical data and measuring conditions

Rated voltage V_R	500 V AC (50/60 Hz) / 600 V DC During operation between winding and metal parts (VDE 0565-2).
Test voltage V_{test}	2800 V AC, 2 s (winding/core) 2800 V AC, 2 s (winding/case)
Rated temperature T_R	60 °C
Rated current I_R	Referred to 50 Hz and rated temperature
Permissible operating current at 400 Hz	$0.6 \cdot I_R$
Rated inductance L_R	Measured with Agilent 4284A at 0.1 mA, 20 °C Measuring frequency: $L_R \leq 1 \text{ mH} = 100 \text{ kHz}$ $L_R > 1 \text{ mH} = 10 \text{ kHz}$
Inductance tolerance	±20% at 20 °C
DC resistance R_{typ}	Measured at 20 °C, typical values
Storage conditions (packaged)	-25 °C ... +40 °C, ≤ 75% RH
Climatic category	40/125/56 (to IEC 60068-1)
Weight	Approx. 600 g

Characteristics and ordering codes

I_R A	L_R mH	R_{typ} Ω	Ordering code
4	5.6	0.480	On request
6	2.2	0.220	On request
8	1.2	0.075	B82505W0000A008
16	0.29	0.025	B82505W0000A015
25	0.15	0.015	B82505W0000A006
40	0.056	0.006	B82505W0000A007

Impedance $|Z|$ versus frequency f
 measured 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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