



## Power line chokes

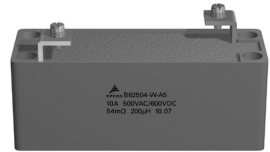
I core chokes

500 V AC, 1 ... 25 A, 0.065 ... 27 mH

**Series/Type:** B82504W

**Date:** October 2008, October 2009

**Rated voltage 500 V AC/600 V DC**  
**Rated current 1 A to 25 A**  
**Rated inductance 0.065 mH to 27 mH**



### Construction

- I core choke
- Rectangular plastic case
- Resin potting

### Features

- Low power dissipation
- Suppression of broadband interference
- Compact design
- 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

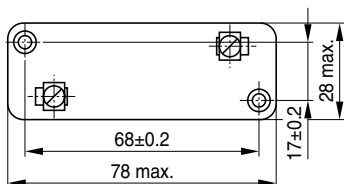
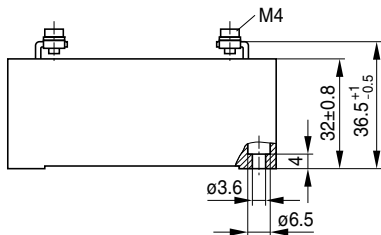
Screw terminals M4

### Marking

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

### Delivery mode

Cardboard box

**Dimensional drawing (dimensions in mm)**


IND0461-C

 Tolerances to ISO 2768-C  
 unless otherwise noted.

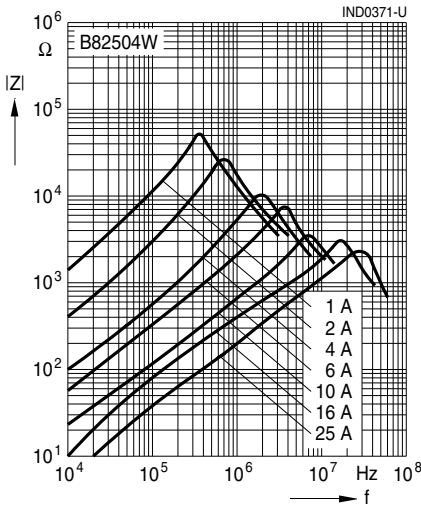
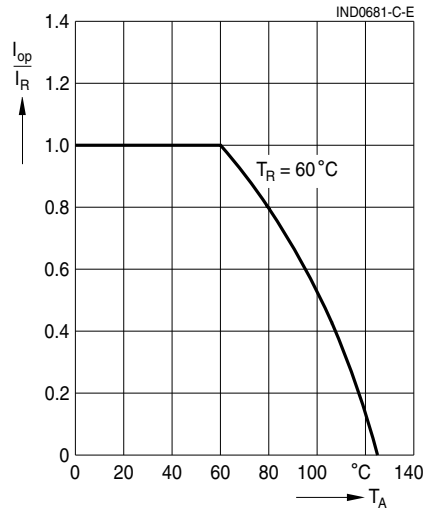
Dimensions in mm

**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: $L_R \leq 1$ mH = 100 kHz $L_R > 1$ mH = 10 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. 170 ... 230 g

**Characteristics and ordering codes**

$I_R$ A	$L_R$ mH	$R_{typ}$ $\Omega$	Ordering code
1	27	5.25	B82504W0000A001
2	7.5	1.3	B82504W0000A002
4	2.0	0.33	B82504W0000A003
5	1.2	0.20	B82504W0000A009
6	0.6	0.15	B82504W0000A004
10	0.2	0.054	B82504W0000A005
16	0.12	0.019	B82504W0000A016
25	0.065	0.009	B82504W0000A007

**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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