



## Power line chokes

Current-compensated ring core double chokes  
250 V AC, 0.25 ... 0.9 A, 4.7 ... 47 mH

**Series/Type:** B82791G/H



**Date:** October 2008

**Rated voltage 250 V AC**  
**Rated current 0.25 A to 0.9 A**  
**Rated inductance 4.7 mH to 47 mH**

### Construction

- Current-compensated ring core double choke
- Ferrite core
- Polycarbonate case (UL 94 V-0)
- Sector winding

### Features

- Without potting
- High resonance frequency due to special winding technique and omission of potting
- Approx. 1.5% stray inductance for symmetrical interference suppression
- Suitable for wave soldering
- Design complies with EN 60938-2 (VDE 0565-2)
- UL and VDE approvals  
- Recyclable
- RoHS-compatible

### Applications

- Suppression of common-mode interferences
- Electronic ballasts in lamps
- Switch-mode power supplies

### Terminals

- Base material CuNi18Zn20
- Layer composition Ni, Sn
- Hot-dipped
- Pins  $\varnothing$  0.6 mm
- Lead spacing  $10 \times 15$  (mm) or  $12.7 \times 5.08/2.54$  (mm)

### Marking

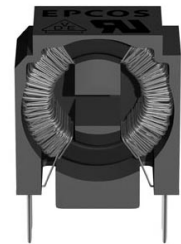
Manufacturer, approval signs and/or VDE standard number, ordering code, graphic symbol, rated current, rated voltage, rated inductance, date of manufacture (YYWWD)

### Delivery mode

Cardboard box



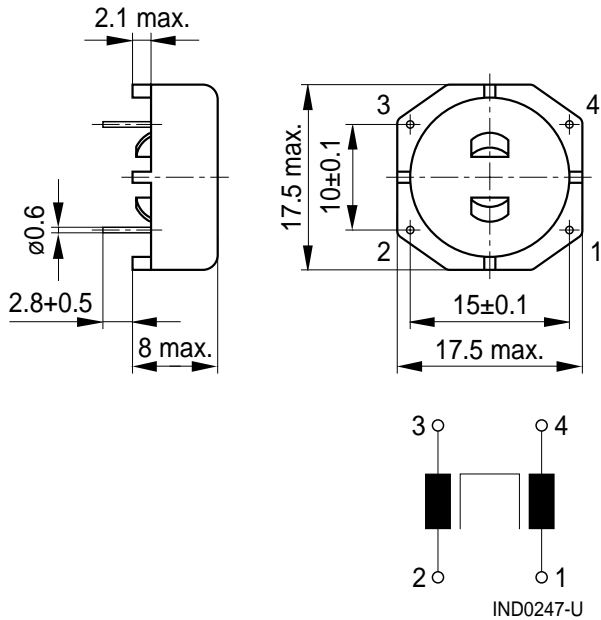
B82791G



B82791H

**Dimensional drawings and pin configurations**

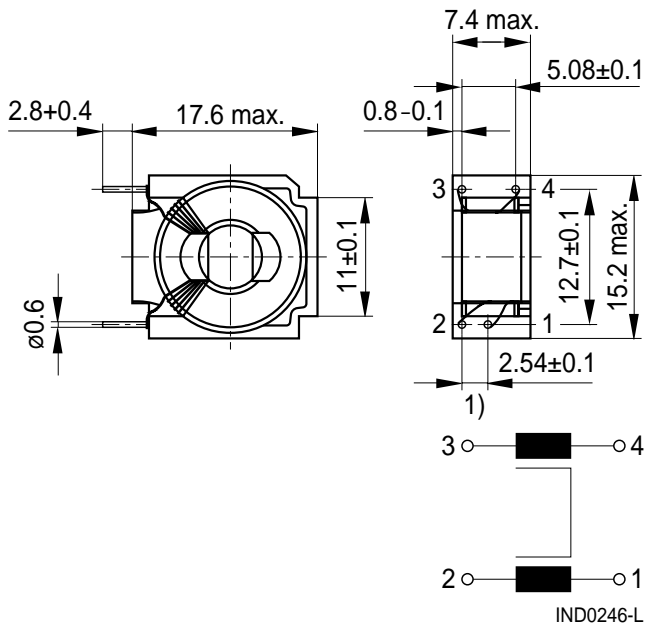
Horizontal version (B82791G)



Tolerances to ISO 2768-M unless otherwise noted.

Dimensions in mm

Vertical version (B82791H)



Tolerances to ISO 2768-M unless otherwise noted.



Dimensions in mm

1) Vertical version with symmetrical lead spacing (5.08 mm × 12.7 mm) is available on request (B82791K).

**Technical data and measuring conditions**

Rated voltage $V_R$	250 V AC (50/60 Hz)
Test voltage $V_{test}$	1500 V AC, 2 s (line/line)
Rated temperature $T_R$	40 °C or 60 °C
Rated current $I_R$	Referred to 50 Hz and rated temperature
Rated inductance $L_R$	Measured with Agilent 4284A at 10 kHz, 0.1 mA, 20 °C Inductance is specified per winding.
Inductance tolerance	-30/+50% at 20 °C
Inductance decrease $\Delta L/L_0$	< 10% at DC magnetic bias with $I_R$ , 20 °C
Stray inductance $L_{stray,typ}$	Measured with Agilent 4284A at 10 kHz, 5 mA, 20 °C, typical values
DC resistance $R_{typ}$	Measured at 20 °C, typical values, specified per winding
Solderability (lead-free)	Sn96.5Ag3.0Cu0.5: (245 ±5) °C, (3 ±0.3) s Wetting of soldering area ≥ 95% (to IEC 60068-2-20, test Ta)
Resistance to soldering heat (wave soldering)	(260 ±5) °C, (10 ±1) s (to IEC 60068-2-20, test Tb)
Climatic category	40/125/56 (to IEC 60068-1)
Storage conditions (packaged)	-25 °C ... +40 °C, ≤ 75% RH
Weight	Approx. 3 g
Approvals	EN 60938-2, UL 1283

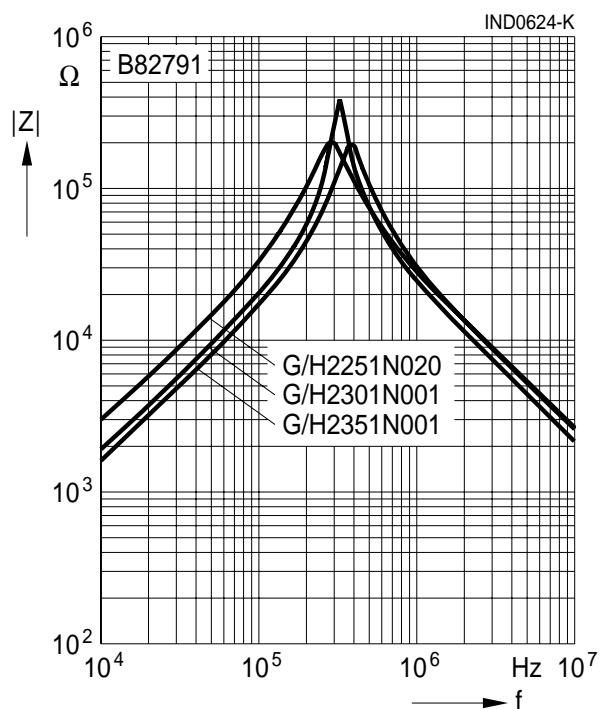
**Characteristics and ordering codes**

$I_R$ A	$L_R$ mH	$L_{stray,typ}$ μH	$R_{typ}$ mΩ	$T_R$ °C	Ordering code		Approvals	
					Horizontal version	Vertical version		
0.25	47	600	2400	40	B82791G2251N020	B82791H2251N020	×	×
0.3	30	500	2200	40	B82791G2301N001	B82791H2301N001	×	×
0.35	22	400	1900	40	B82791G2351N001	B82791H2351N001	×	×
0.4	15	250	1350	40	B82791G2401N001	B82791H2401N001	×	×
0.5	10	170	1000	40	B82791G2501N001	B82791H2501N001	×	×
0.6	6.8	120	630	40	B82791G2601N001	B82791H2601N001	×	×
0.7	4.7	75	440	40	B82791G2701N001	B82791H2701N001	×	×
0.9	4.7	55	250	60	–	B82791H2901N020	×	×

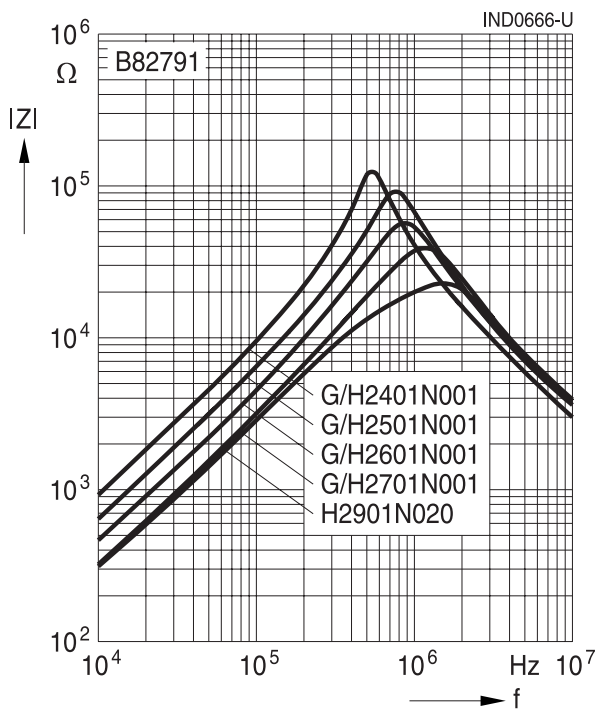
× = approval granted

Current-compensated ring core double chokes

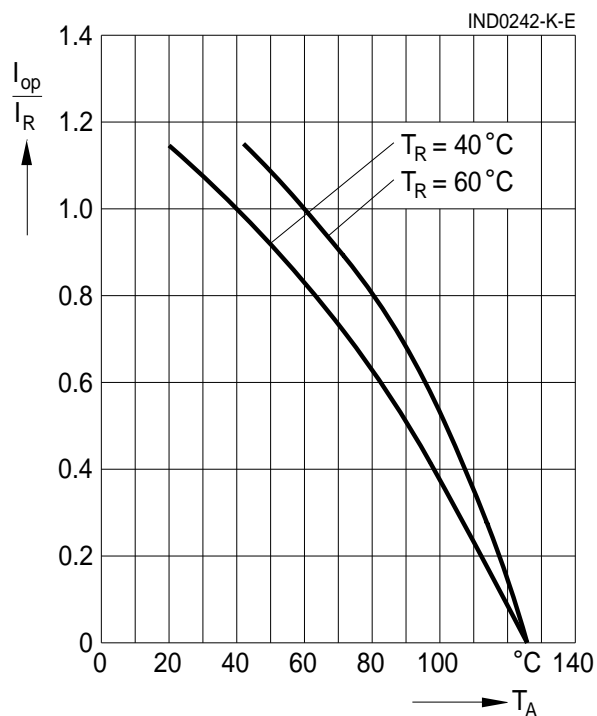
**Impedance  $|Z|$  versus frequency  $f$**   
measured with windings in parallel at 20 °C,  
typical values



**Impedance  $|Z|$  versus frequency  $f$**   
measured with windings in parallel at 20 °C,  
typical values



**Current derating  $I_{op}/I_R$**   
versus 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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