



## Power line chokes

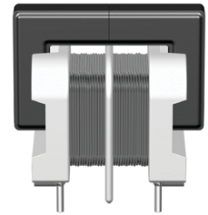
Current-compensated U core double chokes  
300 V AC, 0.4 ... 2.6 A, 0.33 ... 15 mH

**Series/Type:**            **B82730U**

**Date:**                    January 2010

Current-compensated U core double chokes



**Rated voltage 300 V AC**  
**Rated current 0.4 A to 2.6 A**  
**Rated inductance 0.33 mH to 15 mH**



**Construction**

- Current-compensated U-core double choke
- Ferrite core
- Closed PET coil former (UL 94 V-0)
- Without encapsulation
- Creepage distances  $\geq 4$  mm

**Features**

- High resonance frequency
- Approx. 1.3% stray inductance for symmetrical interference suppression
- Low whirring noise
- Suitable for wave soldering
- Design complies with EN 60938-2 (VDE 0565-2)
- VDE and UL approvals  
- Plastic material approved to EN 60335-1, clause 30, Glow wire test (GWT): EN 60695 (+850 °C)
- RoHS-compatible

**Applications**

- Suppression of common-mode interferences
- Compact switch-mode power applications
- Electronic ballasts in lamps
- Suitable for white goods applications

**Terminals**

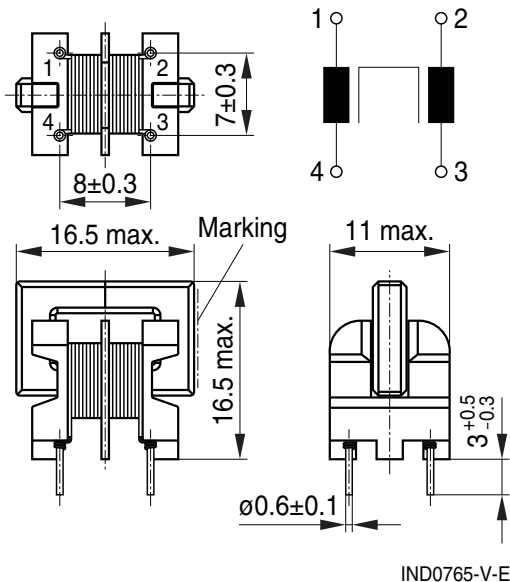
- Base material CP wire
- Hot-dipped
- Pins  $\varnothing 0.6$  mm
- Lead spacing  $7 \times 8$  (mm)

**Marking**

Manufacturer's logo, ordering code (shortened), date of manufacture (WWYY)

**Delivery mode**

Polystyrene tray, anti-static



**Dimensional drawing and pin configuration**


Horizontal version is feasible on request (B82730G).  
Dimensions in mm

**Technical data and measuring conditions**

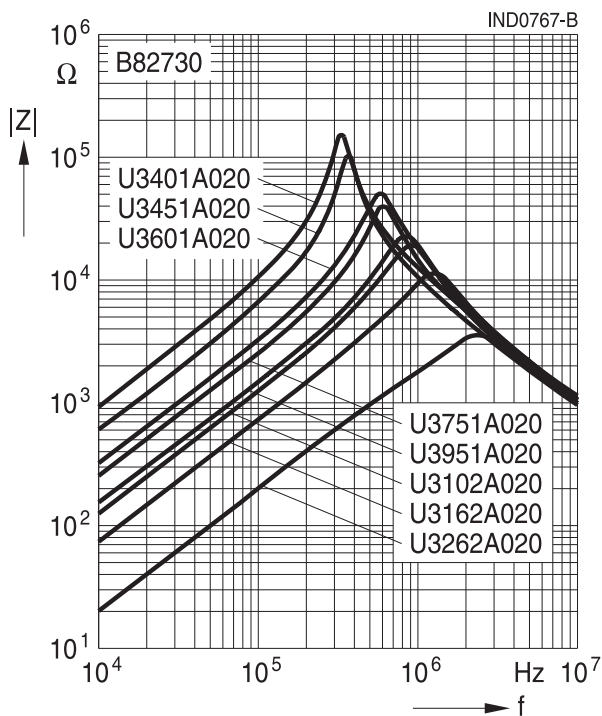
Rated voltage $V_R$	300 V AC (50/60 Hz)
Test voltage $V_{test}$	2000 V AC, 2 s (line/line)
Rated temperature $T_R$	40 °C
Rated current $I_R$	Referred to 50 Hz and rated temperature
Rated inductance $L_R$	Measured with Agilent 4284A at 0.1 mA, 20 °C Measuring frequency: $L_R \leq 1$ mH = 100 kHz $L_R > 1$ mH = 10 kHz Inductance is specified per winding.
Inductance tolerance	-30/+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 5 mA, 20 °C, typical values Measuring frequency: $L_R \leq 1$ mH = 100 kHz $L_R > 1$ mH = 10 kHz
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. 4 g
Approvals	EN 60938-2, UL 1283

Characteristics and ordering codes

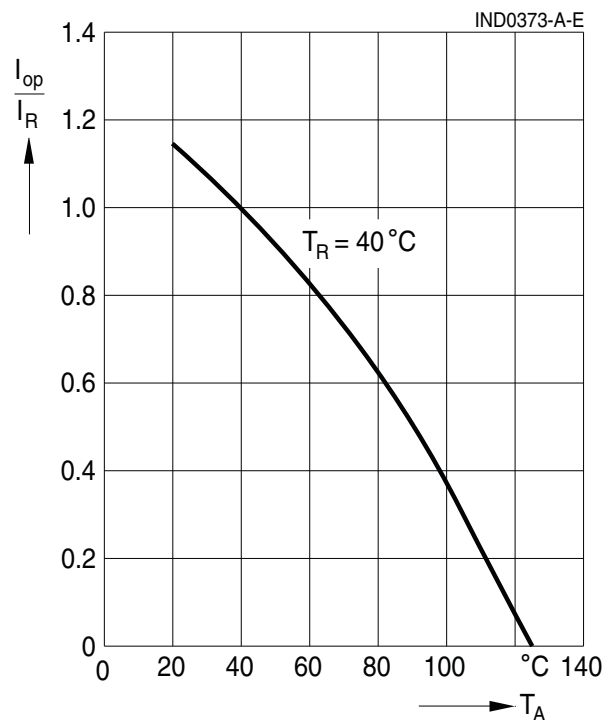
$I_R$ A	$L_R$ mH	$L_{stray,typ}$ $\mu$ H	$R_{typ}$ m $\Omega$	Ordering code	Approvals	
						
0.40	15	200	2400	B82730U3401A020	×	×
0.45	10	140	1750	B82730U3451A020	×	×
0.60	4.7	70	920	B82730U3601A020	×	×
0.75	3.9	55	700	B82730U3751A020	×	×
0.95	2.2	30	410	B82730U3951A020	×	×
1.0	1.8	25	340	B82730U3102A020	×	×
1.6	1.0	14	160	B82730U3162A020	×	×
2.6	0.33	5	60	B82730U3262A020	×	×

× = approval granted

**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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