



## Power line chokes

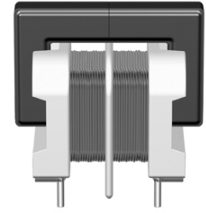
Current-compensated U core double chokes  
300 V AC, 0.4 ... 2.6 A, 0.33 ... 15 mH

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

**Date:**                    **March 2008**

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   (pending)
- RoHS-compatible

**Applications**

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

**Terminals**

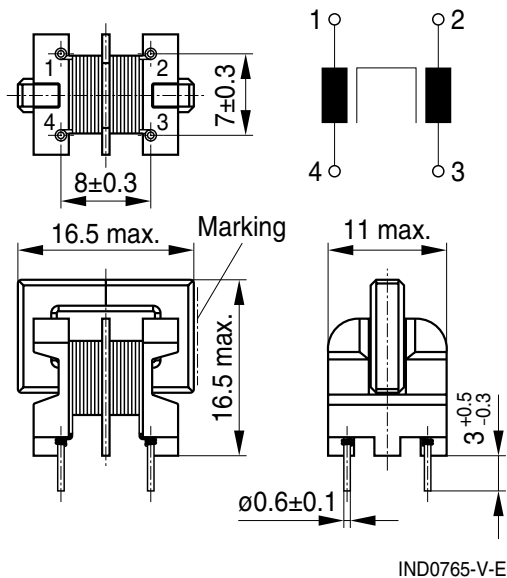
- Base material CP wire
- Hot-dipped
- Pins  $\varnothing 0.6$  mm
- Lead spacing  $7 \times 8$  (mm)

**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

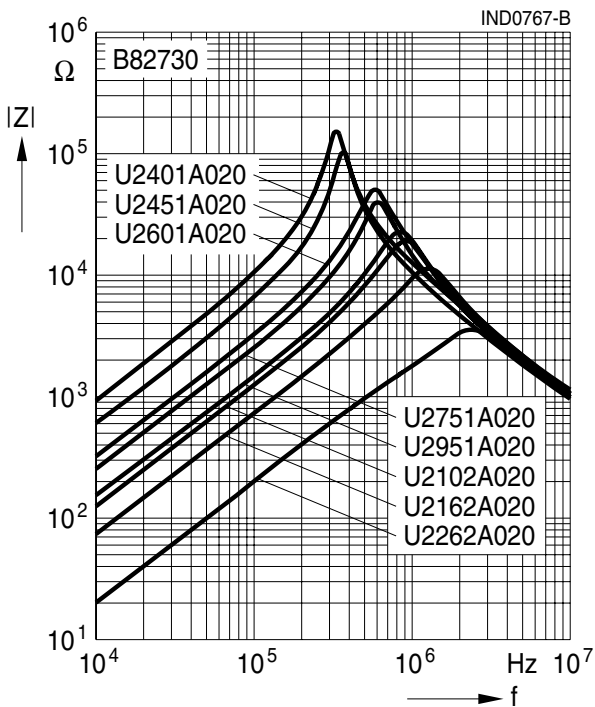
**Technical data and measuring conditions**

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 (pending)

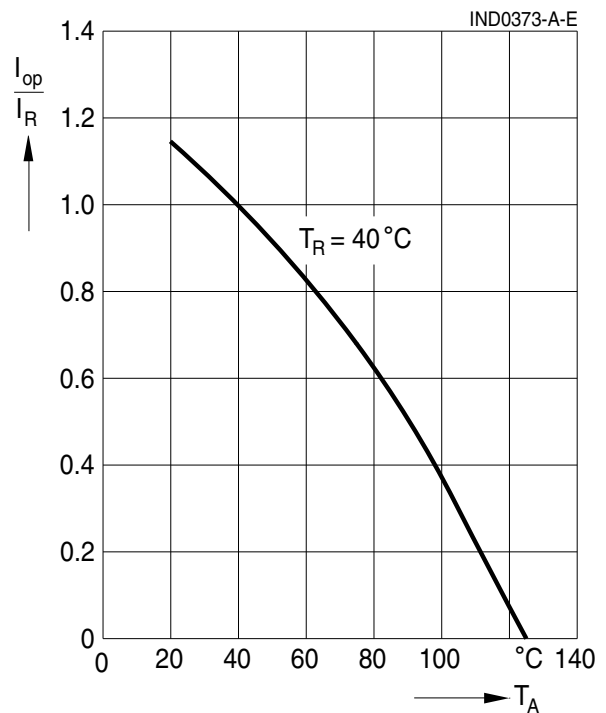
Characteristics and ordering codes

$I_R$ A	$L_R$ mH	$L_{stray,typ}$ $\mu$ H	$R_{typ}$ m $\Omega$	Ordering code	Approvals	
						
0.40	15	200	2400	B82730U3401A020	pending	pending
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		

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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