



## E/ELP Cores

**Series/Type:** E 16/8/5

The following products presented in this data sheet are being withdrawn.

Ordering Code	Substitute Product	Date of Withdrawal	Deadline Last Orders	Last Shipments
B66307F0000X142	B66307F0000X066	2002-08-02	2002-12-31	2003-03-31

For further information please contact your nearest EPCOS sales office, which will also support you in selecting a suitable substitute. The addresses of our worldwide sales network are presented at [www.epcos.com/sales](http://www.epcos.com/sales).

E 16/8/5 (EF 16)

Core

B66307

- In accordance with IEC 61246
- E cores with high permeability for common-mode chokes and broadband applications
- E cores are supplied as single units

**Magnetic characteristics** (per set)

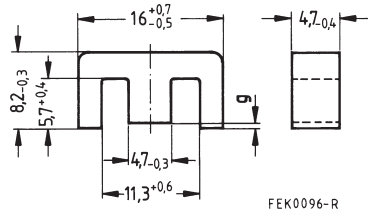
$$\Sigma/A = 1,87 \text{ mm}^{-1}$$

$$l_e = 37,6 \text{ mm}$$

$$A_e = 20,1 \text{ mm}^2$$

$$A_{\min} = 19,4 \text{ mm}^2$$

$$V_e = 756 \text{ mm}^3$$



**Approx. weight** 3,6 g/set

**Ungapped**

Material	$A_L$ -Wert nH	$\mu_e$	$A_{L1\min}$ nH	$P_V$ W/set	Ordering code
N30	1400 + 30/- 20 %	2080			B66307-G-X130
N27	950 + 30/- 20 %	1410	670	< 0,14 (200 mT, 25 kHz, 100 °C)	B66307-G-X127
N87	1000 + 30/- 20 %	1490	670	< 0,36 (200 mT, 100 kHz, 100 °C)	B66307-G-X187
T42	5100 ± 30 %	7570			B66307-F-X142

**Gapped**

Material	$g$ mm	$A_L$ value approx. nH	$\mu_e$	Ordering code ** = 27 (N27) = 87 (N87)
N27,	0,06 ± 0,01	303	450	B66307-G60-X1**
N87	0,10 ± 0,02	212	315	B66307-G100-X1**
	0,50 ± 0,05	69	102	B66307-G500-X1**

The  $A_L$  value in the table applies to a core set comprising one ungapped core (dimension  $g = 0$ ) and one gapped core (dimension  $g > 0$ ).

E 16/8/5 (EF 16)

Core

B66307

**Calculation factors** (for formulas, see “E cores: general information”, page 382)

Material	Relationship between air gap – $A_L$ value		Calculation of saturation current			
	$K1$ (25 °C)	$K2$ (25 °C)	$K3$ (25 °C)	$K4$ (25 °C)	$K3$ (100 °C)	$K4$ (100 °C)
N27	42,2	– 0,701	57,0	– 0,847	52,1	– 0,865
N87	42,2	– 0,701	57,8	– 0,796	50,4	– 0,873

Validity range:  $K1, K2$ :  $0,05 \text{ mm} < s < 1,50 \text{ mm}$   
 $K3, K4$ :  $30 \text{ nH} < A_L < 330 \text{ nH}$

**Coil former (magnetic axis horizontal or vertical)**

Material: GFR polyterephthalate (UL 94 V-0, insulation class to IEC 60085:  
F  $\triangleq$  max. operating temperature 155 °C), color code black

Solderability: to IEC 60068-2-20, test Ta, method 1 (aging 3): 235 °C, 2 s

Resistance to soldering heat: to IEC 60068-2-20, test Tb, method 1B: 350 °C, 3,5 s

Winding: see "Processing Notes", page 159

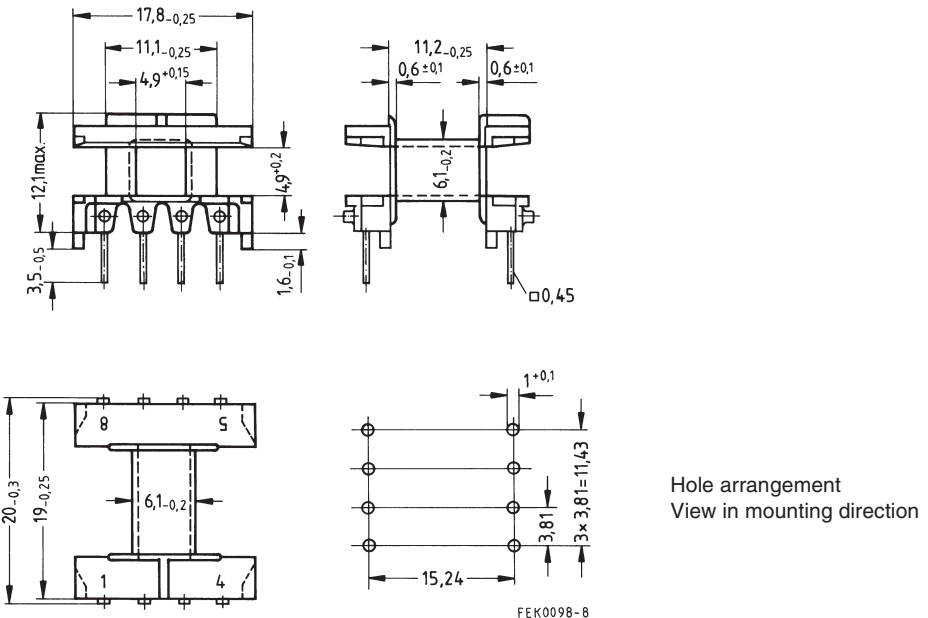
Squared pins

**Yoke**

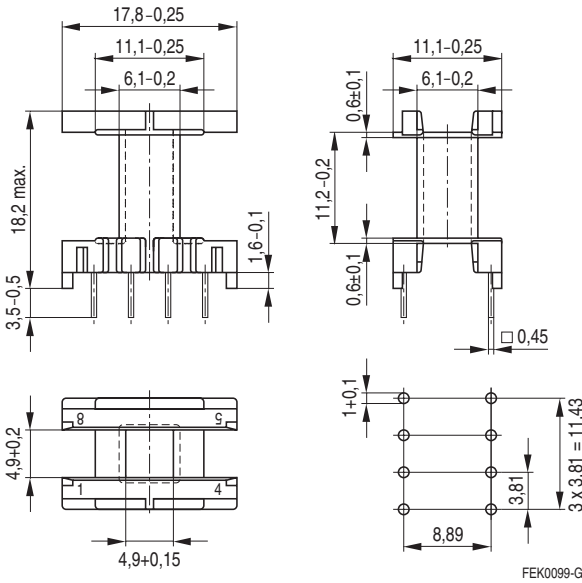
Material: Stainless spring steel (0,2 mm)

Coil former						Ordering code
Figure	Sections	$A_N$ mm <sup>2</sup>	$l_N$ mm	$A_R$ value $\mu\Omega$	Pins	
1	1	22,3	34	52,4	8	B66308-A1108-T1
2	1	22,3	34	52,4	8	B66308-J1108-T1
Yoke (ordering code per piece, 2 are required)						B66308-A2010

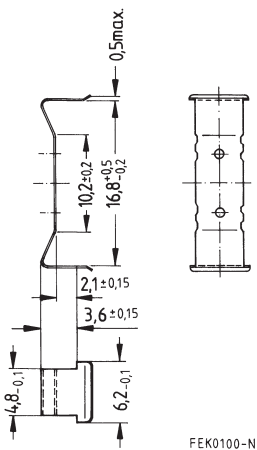
**Figure 1, horizontal version**



**Figure 2, vertical version**



**Yoke**



**Herausgegeben von EPCOS AG**

**Marketing Kommunikation, Postfach 80 17 09, 81617 München, DEUTSCHLAND**

© EPCOS AG 2000. Alle Rechte vorbehalten. Vervielfältigung, Veröffentlichung, Verbreitung und Verwertung dieser Broschüre und ihres Inhalts ohne ausdrückliche Genehmigung der EPCOS AG nicht gestattet.

Mit den Angaben in dieser Broschüre werden die Bauelemente spezifiziert, keine Eigenschaften zugesichert. Bestellungen unterliegen den vom ZVEI empfohlenen Allgemeinen Lieferbedingungen für Erzeugnisse und Leistungen der Elektroindustrie, soweit nichts anderes vereinbart wird.

Diese Broschüre ersetzt die vorige Ausgabe.

Fragen über Technik, Preise und Liefermöglichkeiten richten Sie bitte an den Ihnen nächstgelegenen Vertrieb der EPCOS AG oder an unsere Vertriebsgesellschaften im Ausland.

Bauelemente können aufgrund technischer Erfordernisse Gefahrstoffe enthalten. Auskünfte darüber bitten wir unter Angabe des betreffenden Typs ebenfalls über die zuständige Vertriebsgesellschaft einzuholen.

**Published by EPCOS AG**

**Marketing Communications, P.O. Box 80 17 09, 81617 Munich, GERMANY**

© EPCOS AG 2000. All Rights Reserved. Reproduction, publication and dissemination of this brochure and the information contained therein without EPCOS' prior express consent is prohibited.

The information contained in this brochure describes the type of component and shall not be considered as guaranteed characteristics. Purchase orders are subject to the General Conditions for the Supply of Products and Services of the Electrical and Electronics Industry recommended by the ZVEI (German Electrical and Electronic Manufacturers' Association), unless otherwise agreed.

This brochure replaces the previous edition.

For questions on technology, prices and delivery please contact the Sales Offices of EPCOS AG or the international Representatives.

Due to technical requirements components may contain dangerous substances. For information on the type in question please also contact one of our Sales Offices.