

**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)**

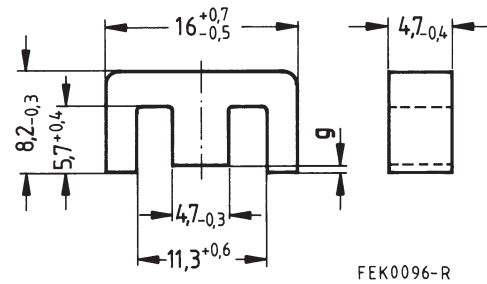
$$\Sigma/A = 1,87 \text{ mm}^{-1}$$

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

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

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

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

**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  $g > 0$ ).

**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

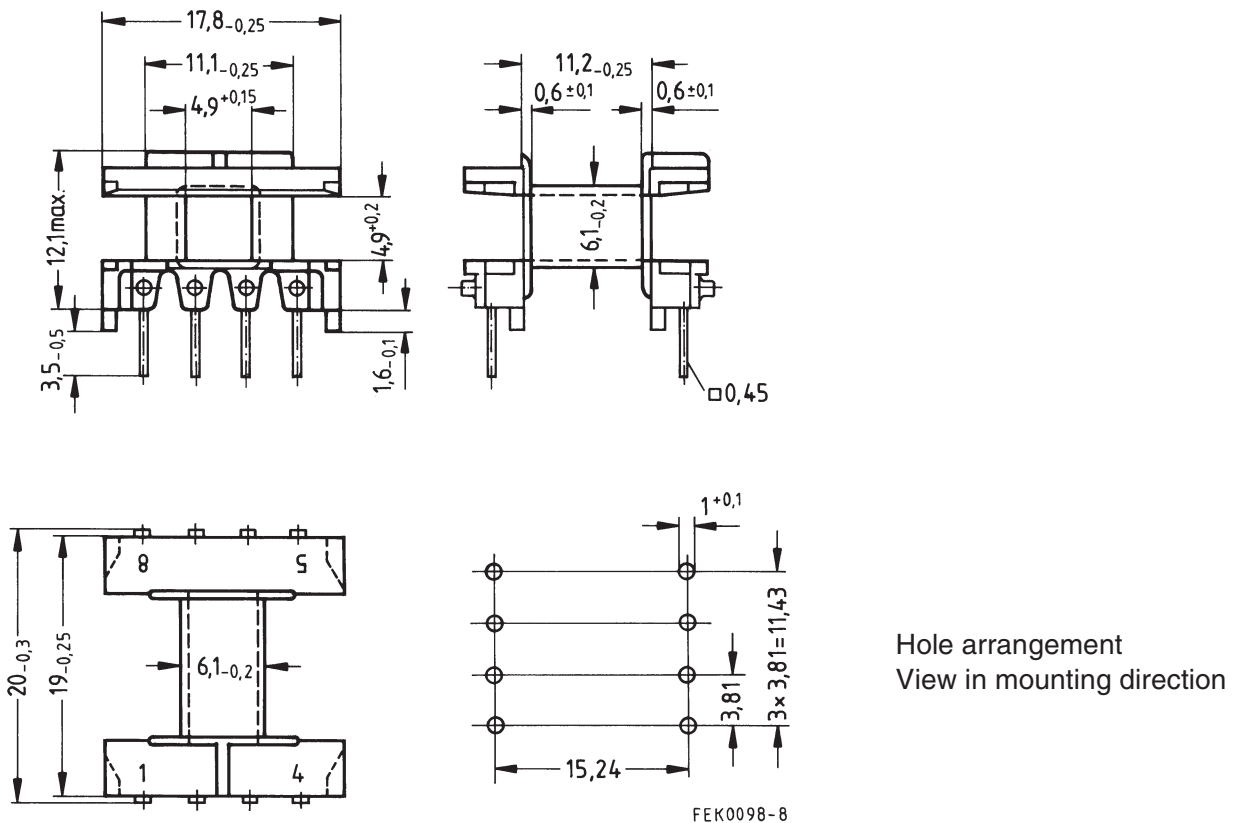
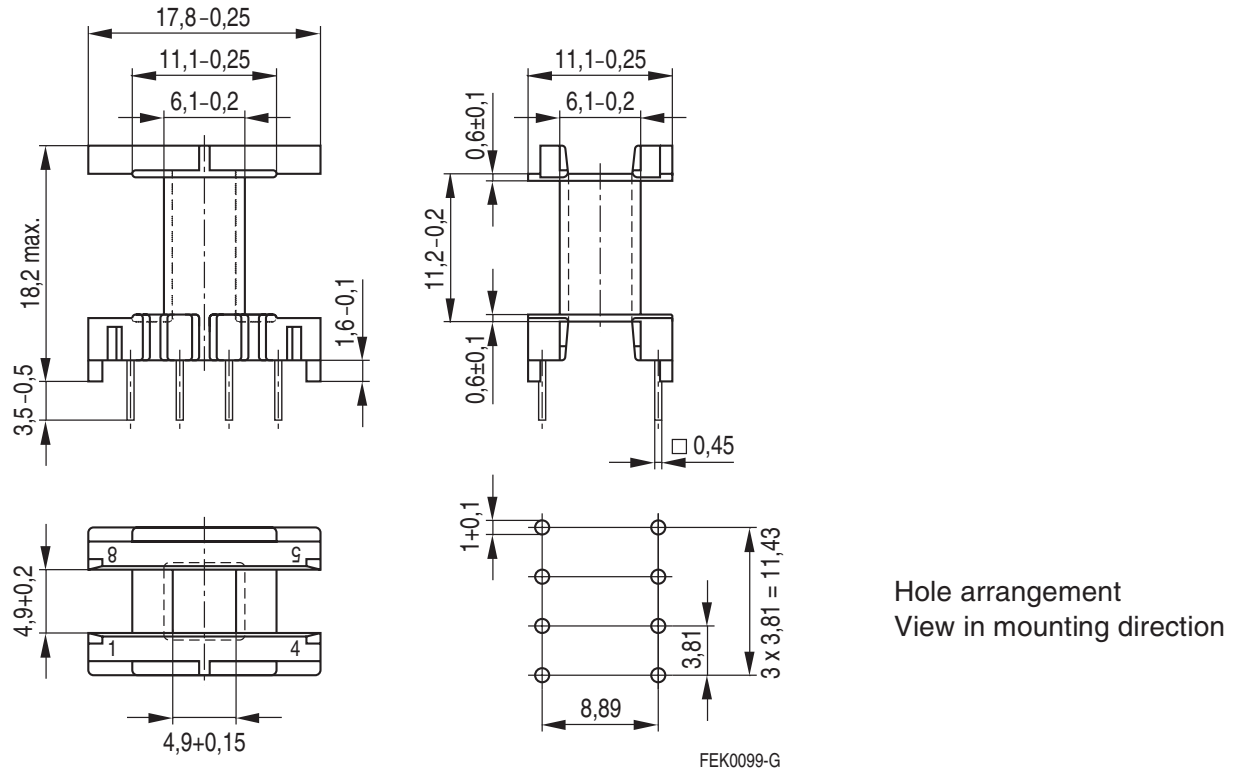
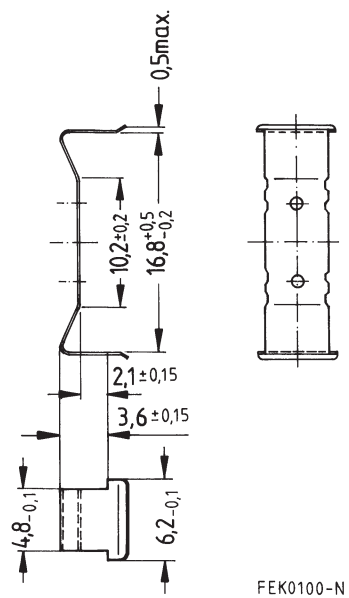
**Figure 1, horizontal version**


Figure 2, vertical version



Yoke



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