

- In accordance with IEC 61246
- E cores are supplied as single units

**Magnetic characteristics (per set)**

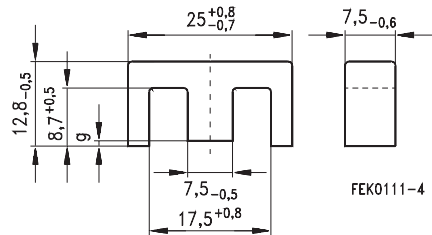
$$\Sigma l/A = 1,1 \text{ mm}^{-1}$$

$$l_e = 57,5 \text{ mm}$$

$$A_e = 52,5 \text{ mm}^2$$

$$A_{\min} = 51,5 \text{ mm}^2$$

$$V_e = 3020 \text{ mm}^3$$

**Approx. weight 16 g/set**

**Ungapped**

Material	$A_L$ value nH	$\mu_e$	$A_{L1\min}$ nH	$P_V$ W/set	Ordering code
N30	2900 + 30/- 20 %	2530			B66317-G-X130
N27	1750 + 30/- 20 %	1520	1440	< 0,59 (200 mT, 25 kHz, 100 °C)	B66317-G-X127
N87	1850 + 30/- 20 %	1620	1440	< 1,60 (200 mT, 100 kHz, 100 °C)	B66317-G-X187

**Gapped**

Material	$g$ mm	$A_L$ value approx. nH	$\mu_e$	Ordering code ** = 27 (N27) = 87 (N87)
N27,	0,10 ± 0,02	489	425	B66317-G100-X1**
N87	0,16 ± 0,02	347	302	B66317-G160-X1**
	0,25 ± 0,02	250	218	B66317-G250-X1**
	0,50 ± 0,05	151	131	B66317-G500-X1**
	1,00 ± 0,05	91	79	B66317-G1000-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	90	– 0,731	139	– 0,847	129	– 0,865
N87	90	– 0,731	139	– 0,796	125	– 0,873

Validity range:  $K1, K2$ : 0,10 mm <  $s$  < 2,00 mm  
 $K3, K4$ : 60 nH <  $A_L$  < 570 nH

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

Material: GFR polyterephthalate; UL 94 V-0, insulation class to IEC 60085:  
 B66208-A, -J:  $F \triangleq$  max. operating temperature 155 °C, color code black  
 B66208-W:  $H \triangleq$  max. operating temperature 180 °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 (0,25 mm)

Coil former						Ordering code
Figure	Sections	$A_N$ mm <sup>2</sup>	$l_N$ mm	$A_R$ value $\mu\Omega$	Pins	
1	1	61	50	28	10	B66208-A1110-T1
2	1	61	50	28	10	B66208-J1110-T1 B66208-W1010-T1
Yoke (ordering code per piece, 2 are required)						B66208-A2010

**Figure 1, horizontal version (type -A)**

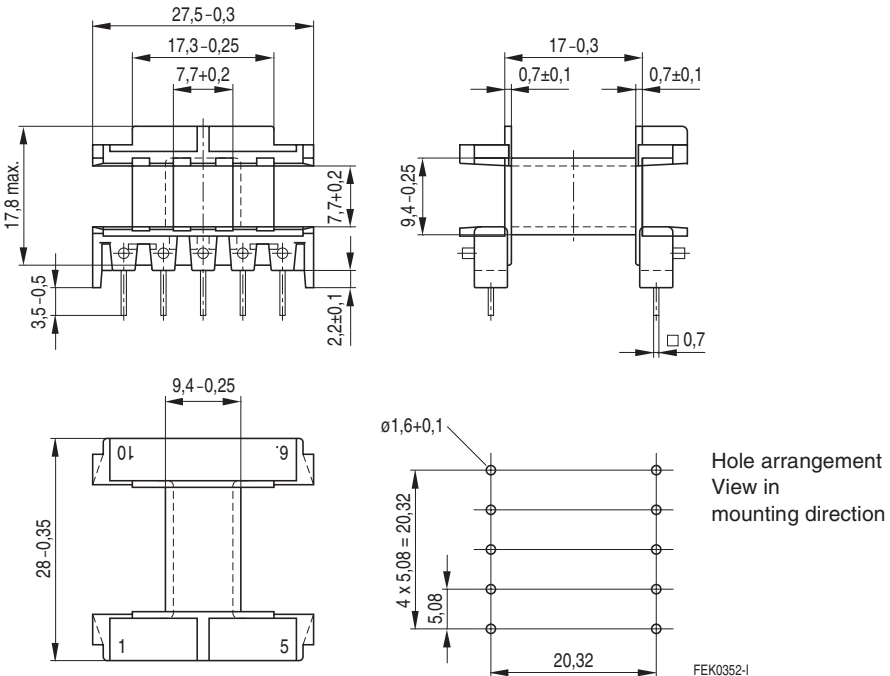
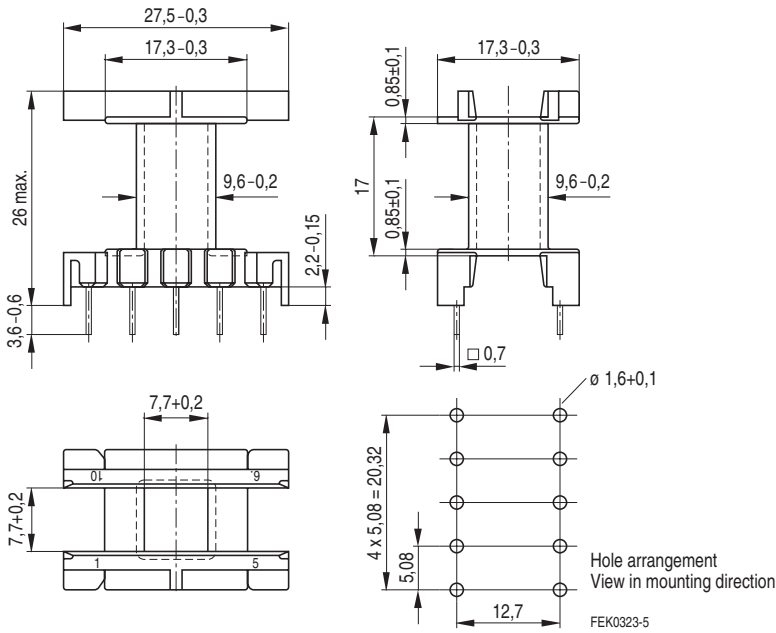
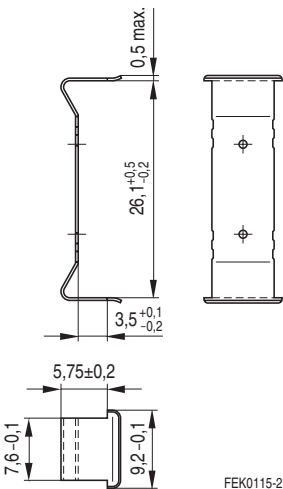


Figure 2, vertical version (type -W and -J)



Yoke



**Coil former for SMPS transformers with line isolation**

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

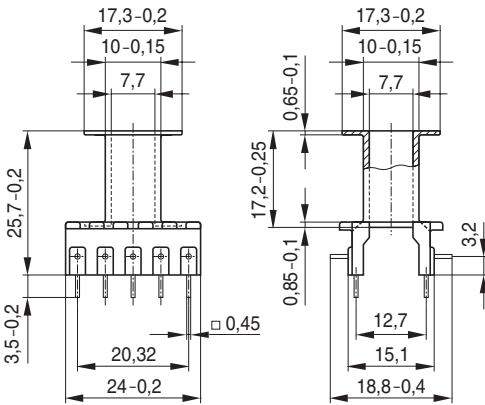
Squared pins

**Yoke**

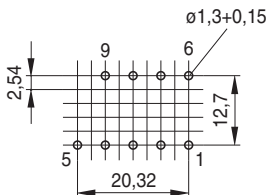
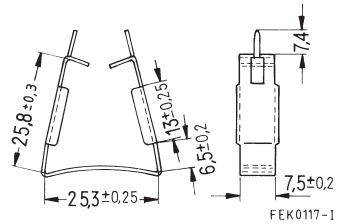
Material: Nickel silver (0,3 mm) with ground terminal

Coil former					Ordering code
Sections	$A_N$ mm <sup>2</sup>	$l_N$ mm	$A_R$ value $\mu\Omega$	Pins	
1	56,9	69,2	41,8	9	B66208-K1009-T1
Yoke (ordering code per piece)					B66208-A2003

**Coil former**



**Yoke**



Hole arrangement  
View in mounting direction

FEK0397-1

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